

3131

REPORT NO CETHA-IR-CR-90165

PRELIMINARY ASSESSMENT REPORT  
FOR  
WALTER REED ARMY MEDICAL CENTER

September 30, 1990

| REPORT DOCUMENTATION PAGE  |  |   | Form Approved<br>OMB No. 0704-0188   |   |
|--|--|---|--|---|
| <small>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small>    |  |   |  |   |
| 1. AGENCY USE ONLY (Leave blank)   |  | 2. REPORT DATE<br>30 Sept 1990                          |  | 3. REPORT TYPE AND DATES COVERED<br>Final |
| 4. TITLE AND SUBTITLE<br><br>Preliminary Assessment Report for<br>Walter Reed Army Medical Center  |  |   | 5. FUNDING NUMBERS<br><br>2281-09-02-1600                                  |   |
| 6. AUTHOR(S)<br><br>John Nist, Larry Bove  |  |   |  |   |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)<br><br>Roy F. Weston, Inc.<br>One Weston Way<br>West Chester, PA 19380  |  |   | 8. PERFORMING ORGANIZATION<br>REPORT NUMBER<br><br>2281-09-02-1600         |   |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)<br><br>Walter Reed AMC<br>HSHL-EH<br>6825 16th St NW<br>Washington, DC   |  |   | 10. SPONSORING/MONITORING<br>AGENCY REPORT NUMBER<br><br>CETHA-IR-CR-90165 |   |
| 11. SUPPLEMENTARY NOTES<br>228107-5001   |  |   |  |   |
| 12a. DISTRIBUTION / AVAILABILITY STATEMENT<br><br>Other Government Agencies Only   |  |   | 12b. DISTRIBUTION CODE   |   |
| 13. ABSTRACT (Maximum 200 words)<br><br>The Preliminary Assessment Report for Walter Reed Army Medical Center contains information to complete the Preliminary Assessment phase of the CERCLA process. The report provides information on hazardous substances identification and storage, and potential receptors for the ground water, surface water, and onsite pathways. The report contains responses to the PA checklist in EPA document "Preliminary Assessment Guidance", a completed EPA form 2070-12, and an inventory of waste and hazardous material storage areas. The information contained in this report can be used to perform a Hazardous Ranking System scoring of the site as required by CERCLA for Federal facilities. |  |   |  |   |
| 14. SUBJECT TERMS<br>Preliminary Assessment, CERCLA, Hazardous Substances, Hazardous Waste   |  |   | 15. NUMBER OF PAGES<br>21  |   |
|  |  |   | 16. PRICE CODE   |   |
| 17. SECURITY CLASSIFICATION OF REPORT<br>Unclassified  | 18. SECURITY CLASSIFICATION OF THIS PAGE<br>Unclassified | 19. SECURITY CLASSIFICATION OF ABSTRACT<br>Unclassified | 20. LIMITATION OF ABSTRACT<br>UL   |   |

## INTRODUCTION

This Preliminary Assessment (PA) Report has been developed to assist the EPA in completing the PA process. The PA Report can be used by the EPA to score the facility using the HRS system and to determine whether further action is required under CERCLA.

The PA Report contains the following sections:

- 1) Response to PA Checklist contained in "Preliminary Assessment Guidance, Fiscal Year, 1988", EPA Document OSWER Directive 9345.0-01.
- 2) EPA Form 2070-12.
- 3) A Property Report prepared by the U. S. Army Toxic and Hazardous Materials Agency (USATHAMA) containing information on waste sites and storage of chemicals.

Waste Site Location Map indicates the location of those sites identified in the Property Report.

Note: Separate Property Reports and Waste Site Location Maps are included for U.S. Army Reserve Centers, if the Reserve Centers were assessed individually.

- 4) A USGS Topographic Map.

PRELIMINARY ASSESSMENT REPORT  
FOR THE  
WALTER REED ARMY MEDICAL CENTER (WRAMC)

I. SITE BACKGROUND

- o Walter Reed Army Medical Center  
6825 16th St., NW  
Washington, DC 20307-5001
- o Walter Reed Army Medical Center is located at 38°56' north latitude and 77°2' west longitude.
- o From the Capital Beltway (495) take Georgia Avenue south for 0.5 miles, then turn right onto 16th Street. Follow 16th Street for 1.4 miles, turn left into the main entrance of Walter Reed Army Medical Center.

II. RESPONSIBLE PARTIES

- o Walter Reed Army medical Center is owned by the United States Government - Department of the Army.
- o The environmental coordinator is:

Mr. Jack Miller  
Walter Reed Army Medical Center  
HSHL-EH (P&E Div.)  
ATTN: Mr. Miller  
6825 16th St., NW  
Washington, DC 20307-5001  
(202) 576-0089

III. OVERVIEW/SITE HISTORY

- o In 1909, an 80-bed hospital was built on this 113 acre tract. Operations included: research, teaching and care for sick and wounded. WRAMC gradually expanded to 2,500 beds by 1918. In 1923, the Army's Medical, Dental, Veterinary and Nursing schools moved to WRAMC. World War II brought expansion to 3,000 beds, and WRAMC has continually expanded to its current capacity serving over 16,000 patients annually. [1]
- o There have been no emergency or remedial actions taken at Walter Reed Army Medical Center. [1,2]
- o No spills were reported to have occurred at Walter Reed Army

- o No spills were reported to have occurred at Walter Reed Army Medical Center. [1,2]
- o Walter Reed Army Medical Center maintains the following permits:
  - U.S. Nuclear Regulatory Commission (NRC) - Indicator license no. 08-01738-03. [3]
  - U.S. Nuclear Regulatory Commission (NRC) - General license no. 6158. [3]
  - Department of the Army - Authorization for naturally occurring isotopes and others not covered by the NRC license (DA A08-01-90). [3]
  - Environmental Protection Agency - Notification filed by WRAMC to generate and transport hazardous materials (DC 4210021156). [1]
- o No recent sampling data for WRAMC exists. [2]

#### IV. WASTE CONTAINMENT/HAZARDOUS SUBSTANCE IDENTIFICATION

- o Waste containment and hazardous substance identification information is contained in the attached USATHAMA Property Report no. 11865. This report was completed in July of 1990, identifies 12 waste sites, and contains information on: storage/disposal methods, integrity, containment, volume/amount, types and descriptive comments. Waste sites include:
  - Hazardous and flammable chemicals, radiological, photographic, pathological and infectious wastes are stored in research laboratories and storage bunkers indoors over concrete with no drains, or drains to sanitary sewer.
  - Waste oil/solvents and asbestos are used and stored in a vehicle maintenance shop with a concrete floor, no curbing and drains feeding storm sewer.
  - Fuel oil, waste oil, MOGAS and diesel are stored in underground storage tanks.
  - Possible PCB contaminated oil in transformers located throughout facility. No secondary containment.

## V. GROUNDWATER PATHWAY

- o There are 8 private drinking wells within four miles of the site. There are no public wells in the area. [4]
- o There are 2 irrigation/farming wells within four miles of the site. [4]
- o The population drinking groundwater within four miles of the site is estimated at 31 people. [5]
- o The nearest well within four miles that is a source of drinking water is 1.25 miles. [4]
- o The underlying bedrock of WRAMC consists of massive crystalline metamorphic schists and gneisses of the Pre-Cambrian Age. These metamorphic rocks are intruded by igneous rocks, pegmatites and veins of quartz. The soil type is from the Glenelg-Manor-Chester soil association. This thin residuum soil mantle overlies the bedrock and is 2 meters thick. It is moderately sloping, well-drained, silty and micaceous with a small amount of silty alluvium and a permeability range of  $10^{-3}$  to  $10^{-4}$  cm/sec. The underlying rocks have a low porosity, and the water gradient follows surface topography. The depth to the aquifer ranges from 40-140 ft. [1]
- o Annual net precipitation is 35.77 inches. [1]
- o The Washington Suburban Sanitary Commission is a municipal water source, drawn from surface water, which serves this area. It is an available alternative to private wells. [1]
- o There is no evidence of a release to groundwater pathways at WRAMC. [1,2]

## VI. ADDITIONAL FACTORS FOR THE GROUNDWATER PATHWAY

- o WRAMC is not located over a "sole source" aquifer, and it is not located in an area of karst terrain. [1,6]

## VII. SURFACE WATER PATHWAY

- o Surface water of concern within the 15-mile target distance limit is Rock Creek, 300 meters west of WRAMC, which flows into the Potomac River 7.8 miles downstream. [5]
- o WRAMC is on the Rock Creek drainage basin. Runoff goes into the D.C. storm sewer system, then into Rock Creek. [1]

- o There is no surface water on WRAMC and it is not located in a floodplain .[1,7]
- o The slope of the intervening terrain between the nearest waste site on WRAMC and Rock Creek is 7%. [5]
- o Both commercial and recreational fishing occurs within the 15-mile target distance limit. Rock Creek has unrecorded recreational fishing. Reports from 1988 indicate the main section of the Potomac River produced 4,660 lbs. of Catfish and 5,920 lbs. of Blue Crab. [8] Surface water acreage is estimated at 23 square miles. [5]
- o There are no surface water intakes within 15 miles of the site. [4,8].
- o Affected sensitive environments include:
  - Rock Creek Park, which is adjacent to WRAMC, is listed as a non-tidal fresh-water wetland. [9]
  - The Potomac River is listed as a tidal wetland. [9]
  - The critical habitat for the Hays Spring Amphipod, a federally listed endangered species. Habitat is located within the Rock Creek floodplain adjacent to The National Zoo. [10]
- o Economically important resources within the target distance limit include: Catfish and Blue Crab. [8]
- o There is no evidence of a release to surface water from WRAMC. [1,2]

#### VIII.ADDITIONAL FACTORS - SURFACE WATER PATHWAY

- o The upgradient drainage area for WRAMC is estimated at 12 square miles. [5]
- o The average annual stream flow of Rock Creek is 62.3 ft.<sup>3</sup>/sec. [12]

## IX. ADDITIONAL FACTORS - AIR PATHWAY

- o The population surrounding WRAMC in various radii is: [13]

| <u>Ring Distance</u> | <u>Population</u> |
|----------------------|-------------------|
| 0.0 to 0.25 miles    | 7,719             |
| 0.25 to 0.5 miles    | 20,560            |
| 0.5 to 1 miles       | 39,690            |
| 1 to 2 miles         | 119,715           |
| 2 to 3 miles         | 137,706           |
| 3 to 4 miles         | 158,226           |
| Total Population     | 483,616           |

Note: Base coordinates are 38°56' North and 72°02' West.  
Population does not include base population.

- o There are permitted emission sources located within occupied buildings on WRAMC. Occupancies of these buildings vary. The estimated range is from 3-1,000 people. [5]
- o The nearest commercial/industrial area is 1,000 ft. Residences are located on-site within 300 ft. The Takoma School is located 1,600 ft. away. Rock Creek Park is located 1,000 ft. away and there are no farms within a four-mile radius. [7]
- o Rock Creek is a fresh-water wetland. [9] The Hays Spring Amphipod is an endangered species located next to the National Zoo. [10]
- o There is no evidence of a release to air. [1,2]

## X. ONSITE PATHWAY

- o There is no on-site soil contamination. [1,2]



### Walter Reed References

1. Installation Assessment of Headquarters, Walter Reed Army Medical Center, Washington, D.C., and noncontiguous sections Forest Glen, Silver Spring, MD, and Glen Haven, Wheaton, MD. U.S. Army Toxic and Hazardous Materials Agency, Report no. 342, June 1984.
2. Mr. John Sale, P&E Division, DEH, Walter Reed Army Medical Center, 11 July 1990.
3. Mr. Dave Burton, WRAMC Health Physics Office, 5 July 1990.
4. Well database from Josephine Herring, Maryland Water Resources Administration, Water Supply Division, 18 July 1990.
5. Visual observations, Mr. John F. Nist, Project Scientist, Roy F. Weston, Inc.
6. Letter from Lisa Cunningham, U.S. EPA, Region III, 6 June 1990.
7. Mr. David Fugitt, Maryland-National Capital Park and Planning Commission, 19 July 1990.
8. EPA WQAB PATHSCAN Database.
9. Mr. Jeff Thompson, Maryland Forest, Park and Wildlife, Non-tidal Wetlands Division, 10 July 1990.
10. Mr. Bob Ford, Rock Creek Park Headquarters, 12 July 1990. Also, N.Y. Times newspaper article, 2 March 1982.
11. Letter from Connie Lewis, Tidewater Administration, Maryland Department of Natural Resources, 3 July 1990.
12. Mr. Harry Hansen, Maryland Geological Survey; taken from USGS Report of Investigation #35, 1983; 6 July 1990.
13. Graphical Exposure Modeling System (GEMS) managed by U.S. EPA/Office of Toxic Substances, 1980 Census Database "80 Population."



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION  
01 STATE 02 SITE NUMBER

II. SITE NAME AND LOCATION

|  |                |  |           |                |              |
|--|----------------|--|-----------|----------------|--------------|
| 01 SITE NAME (Legal, common, or descriptive name of site)<br>Walter Reed Army Medical Center |                | 02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER<br>16th Street, NW |           |                |              |
| 03 CITY<br>Washington  | 04 STATE<br>DC | 05 ZIP CODE<br>20307-5001  | 06 COUNTY | 07 COUNTY CODE | 08 CONG DIST |
| 09 COORDINATES<br>LATITUDE<br>38° 56' N  |                | LONGITUDE<br>77° 02' W   |           |                |              |

10 DIRECTIONS TO SITE (Starting from nearest public road)

From the Capital Beltway (495) take George Avenue south for 0.5 miles, then turn right onto 16th Street. Follow 16th Street for 1.4 miles, turn left into the main entrance of Walter Reed Army Medical Center.

III. RESPONSIBLE PARTIES

|   |                |  |                                       |  |  |
|---|----------------|--|---------------------------------------|--|--|
| 01 OWNER (If known)<br>U. S. Army                       |                | 02 STREET (Business, mailing, residential)<br>6825 16th Street, NW |                                       |  |  |
| 03 CITY<br>Washington                                   | 04 STATE<br>DC | 05 ZIP CODE<br>20307-5001  | 06 TELEPHONE NUMBER<br>(202) 576-0059 |  |  |
| 07 OPERATOR (If known and different from owner)<br>Same |                | 08 STREET (Business, mailing, residential)                         |                                       |  |  |
| 09 CITY   | 10 STATE       | 11 ZIP CODE  | 12 TELEPHONE NUMBER<br>( )            |  |  |

13 TYPE OF OWNERSHIP (Check one)

- ☐ A. PRIVATE ☒ B. FEDERAL: U. S. Army (Agency name)  
☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL  
☐ F. OTHER: (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

- ☐ A. RCRA 3001 DATE RECEIVED: / / MONTH DAY YEAR ☐ B. UNCONTROLLED WASTE SITE (RCRA 103 d) DATE RECEIVED: / / MONTH DAY YEAR ☒ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

|  |  |  |  |  |  |
|--|--|--|--|--|--|
| 01 ON SITE INSPECTION<br><input checked="" type="checkbox"/> YES DATE 7 / 10 / 90<br><input type="checkbox"/> NO MONTH DAY YEAR                      |  | BY (Check all that apply)<br><input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input checked="" type="checkbox"/> D. OTHER CONTRACTOR<br><input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: (Specify)<br>CONTRACTOR NAME(S): |  |  |  |
| 02 SITE STATUS (Check one)<br><input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN |  | 03 YEARS OF OPERATION<br>1989 Present<br>BEGINNING YEAR ENDING YEAR <input type="checkbox"/> UNKNOWN   |  |  |  |

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Hazardous and flammable chemicals; radiological, photographic, pathological and infectious wastes; waste oil/solvents; battery acid, asbestos; fuel oil; MOGAS; diesel; PCB's.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Possible contamination of ground and surface water from potentially leaking or uncontained storage areas. Potential contaminants include: oil, solvents, fuel, hazardous and flammable chemicals and PCB's. Affected targets may include: sensitive environments, drinking water sources and recreational resources.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

- ☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

|                                      |  |                 |                                     |   |
|--------------------------------------|--|-----------------|-------------------------------------|---|
| 01 CONTACT<br>Jack Miller            | 02 OF (Agency/Organization)<br>Cdr, HSC<br>ATTN: HSHL-EH (P & E Div) |                 | 03 TELEPHONE NUMBER<br>202 576-0089 |   |
| 04 PERSON RESPONSIBLE FOR ASSESSMENT | 05 AGENCY  | 06 ORGANIZATION | 07 TELEPHONE NUMBER<br>( )          | 08 DATE<br>7 / 9 / 90<br>MONTH DAY YEAR |



**POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 2 - WASTE INFORMATION**

**I. IDENTIFICATION**

01 STATE 02 SITE NUMBER

**II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS**

|   |  |   |  |  |   |  |   |                                       |  |  |   |  |                                       |  |  |  |  |
|---|--|---|--|--|---|--|---|---------------------------------------|--|--|---|--|---------------------------------------|--|--|--|--|
| <b>01 PHYSICAL STATES</b> (Check all that apply)<br><input checked="" type="checkbox"/> A. SOLID <input type="checkbox"/> E. SLURRY<br><input checked="" type="checkbox"/> B. POWDER, FINES <input checked="" type="checkbox"/> F. LIQUID<br><input type="checkbox"/> C. SLUDGE <input type="checkbox"/> G. GAS<br><input type="checkbox"/> D. OTHER _____<br>Specify | <b>02 WASTE QUANTITY AT SITE</b><br>(Measure of waste quantities must be consistent)<br>TONS <u>1,563.7</u><br>CUBIC YARDS _____<br>NO. OF DRUMS <u>10</u> | <b>03 WASTE CHARACTERISTICS</b> (Check all that apply)<br><table border="0"> <tr> <td><input checked="" type="checkbox"/> A. TOXIC</td> <td><input checked="" type="checkbox"/> E. SOLUBLE</td> <td><input type="checkbox"/> I. HIGHLY VOLATILE</td> </tr> <tr> <td><input checked="" type="checkbox"/> B. CORROSIVE</td> <td><input checked="" type="checkbox"/> F. INFECTIOUS</td> <td><input type="checkbox"/> J. EXPLOSIVE</td> </tr> <tr> <td><input checked="" type="checkbox"/> C. RADIOACTIVE</td> <td><input checked="" type="checkbox"/> G. FLAMMABLE</td> <td><input checked="" type="checkbox"/> K. REACTIVE</td> </tr> <tr> <td><input type="checkbox"/> D. PERSISTENT</td> <td><input type="checkbox"/> H. IGNITABLE</td> <td><input type="checkbox"/> L. INCOMPATIBLE</td> </tr> <tr> <td></td> <td></td> <td><input type="checkbox"/> M. NOT APPLICABLE</td> </tr> </table> | <input checked="" type="checkbox"/> A. TOXIC | <input checked="" type="checkbox"/> E. SOLUBLE | <input type="checkbox"/> I. HIGHLY VOLATILE | <input checked="" type="checkbox"/> B. CORROSIVE | <input checked="" type="checkbox"/> F. INFECTIOUS | <input type="checkbox"/> J. EXPLOSIVE | <input checked="" type="checkbox"/> C. RADIOACTIVE | <input checked="" type="checkbox"/> G. FLAMMABLE | <input checked="" type="checkbox"/> K. REACTIVE | <input type="checkbox"/> D. PERSISTENT | <input type="checkbox"/> H. IGNITABLE | <input type="checkbox"/> L. INCOMPATIBLE |  |  | <input type="checkbox"/> M. NOT APPLICABLE |
| <input checked="" type="checkbox"/> A. TOXIC  | <input checked="" type="checkbox"/> E. SOLUBLE   | <input type="checkbox"/> I. HIGHLY VOLATILE   |  |  |   |  |   |                                       |  |  |   |  |                                       |  |  |  |  |
| <input checked="" type="checkbox"/> B. CORROSIVE  | <input checked="" type="checkbox"/> F. INFECTIOUS  | <input type="checkbox"/> J. EXPLOSIVE   |  |  |   |  |   |                                       |  |  |   |  |                                       |  |  |  |  |
| <input checked="" type="checkbox"/> C. RADIOACTIVE  | <input checked="" type="checkbox"/> G. FLAMMABLE   | <input checked="" type="checkbox"/> K. REACTIVE   |  |  |   |  |   |                                       |  |  |   |  |                                       |  |  |  |  |
| <input type="checkbox"/> D. PERSISTENT  | <input type="checkbox"/> H. IGNITABLE  | <input type="checkbox"/> L. INCOMPATIBLE  |  |  |   |  |   |                                       |  |  |   |  |                                       |  |  |  |  |
|   |  | <input type="checkbox"/> M. NOT APPLICABLE  |  |  |   |  |   |                                       |  |  |   |  |                                       |  |  |  |  |

**III. WASTE TYPE**

| CATEGORY | SUBSTANCE NAME          | 01 GROSS AMOUNT | 02 UNIT OF MEASURE | 03 COMMENTS |
|----------|-------------------------|-----------------|--------------------|-------------|
| SLU      | SLUDGE                  |                 |                    |             |
| OLW      | OILY WASTE              | 500             | GA                 |             |
| SOL      | SOLVENTS                | 4,470           | GA                 |             |
| PSD      | PESTICIDES              |                 |                    |             |
| OCC      | OTHER ORGANIC CHEMICALS |                 |                    |             |
| IOC      | INORGANIC CHEMICALS     |                 |                    |             |
| ACD      | ACIDS                   | 50              | GA                 |             |
| BAS      | BASES                   |                 |                    |             |
| MES      | HEAVY METALS            | 50              | TN                 |             |

**IV. HAZARDOUS SUBSTANCES** (See Appendix for most frequently used CAS Numbers)

| 01 CATEGORY | 02 SUBSTANCE NAME        | 03 CAS NUMBER | 04 STORAGE/DISPOSAL METHOD | 05 CONCENTRATION | 06 MEASURE OF CONCENTRATION |
|-------------|--------------------------|---------------|----------------------------|------------------|-----------------------------|
| OLW         | Oil                      | 999           | TK                         |                  |                             |
| SOL         | "Safety Kleen"           | 999           | TK                         |                  |                             |
| MES         | Photographic/X-ray Waste | 999           |                            |                  |                             |
| SOL         | Reagents                 | 999           | SI                         |                  |                             |
| SOL         | Xylene                   | 999           | SI                         |                  |                             |
| SOL         | Acetone                  | 999           | SI                         |                  |                             |
| SOL         | Methanol                 | 999           | SI                         |                  |                             |
| MES         | Lead                     | 999           | PL                         |                  |                             |
| SOL         | Methylene Chloride       | 999           | SI                         |                  |                             |
| SOL         | Isopropyl Alcohol        | 999           | SI                         |                  |                             |
| SOL         | Petroleum Distillate     | 999           | SI                         |                  |                             |
| SOL         | Trichloroethylene        | 79-01-6       | SI                         |                  |                             |
| SOL         | Benzene                  | 71-43-2       | SI                         |                  |                             |
| OLW         | PCB in Oil               | 1336-36-3     | TK                         |                  |                             |
| ACD         | Hydrochloric Acid        | 7647-01-0     | SI                         |                  |                             |
| ACD         | Chromic Acid             | 7738-94-5     | SI                         |                  |                             |

**V. FEEDSTOCKS** (CONTINUED) (See Appendix for CAS Numbers)

| CATEGORY | 01 FEEDSTOCK NAME  | 02 CAS NUMBER | CATEGORY | 01 FEEDSTOCK NAME | 02 CAS NUMBER |
|----------|--------------------|---------------|----------|-------------------|---------------|
| FDS      | Petroleum Products | 999           | FDS      |                   |               |
| FDS      | Sulfuric Acid      | 7664-93-9     | FDS      |                   |               |
| FDS      | Reagents           | 999           | FDS      |                   |               |
| FDS      | Solvents           | 999           | FDS      |                   |               |

**VI. SOURCES OF INFORMATION** (Cite specific references, e.g., state files, sample analysis, reports)

### IDENTIFICATION

|          |                |
|----------|----------------|
| 01 STATE | 02 SITE NUMBER |
|----------|----------------|

## 01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID                      ☐ E. SLURRY  
☐ B. POWDER, FINES        ☐ F. LIQUID  
☐ C. SLUDGE                 ☐ G. GAS  
☐ D. OTHER \_\_\_\_\_

## 02 WASTE QUANTITY AT SITE

(Measure of waste generation  
must be substantiated)

TONS

**CUBIC YARDS**

NO. OF DRUMS

## 03 WASTE CHARACTERISTICS (Check all that apply)

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> A. TOXIC       | <input type="checkbox"/> E. SOLUBLE    | <input type="checkbox"/> I. HIGHLY VOLATILE |
| <input type="checkbox"/> B. CORROSIVE   | <input type="checkbox"/> F. INFECTIOUS | <input type="checkbox"/> J. EXPLOSIVE       |
| <input type="checkbox"/> C. RADIOACTIVE | <input type="checkbox"/> G. FLAMMABLE  | <input type="checkbox"/> K. REACTIVE        |
| <input type="checkbox"/> D. PERSISTENT  | <input type="checkbox"/> H. IGNITABLE  | <input type="checkbox"/> L. INCOMPATIBLE    |
|   |  | <input type="checkbox"/> M. NOT APPLICABLE  |

## IN. WASTE TYPE

| CATEGORY | SUBSTANCE NAME          | 01 GROSS AMOUNT | 02 UNIT OF MEASURE | 03 COMMENTS |
|----------|-------------------------|-----------------|--------------------|-------------|
| SLU      | SLUDGE                  |                 |                    |             |
| OLW      | OILY WASTE              |                 |                    |             |
| SOL      | SOLVENTS                |                 |                    |             |
| PSD      | PESTICIDES              |                 |                    |             |
| OCC      | OTHER ORGANIC CHEMICALS |                 |                    |             |
| IOC      | INORGANIC CHEMICALS     |                 |                    |             |
| ACD      | ACIDS                   |                 |                    |             |
| BAS      | BASES                   |                 |                    |             |
| MES      | HEAVY METALS            |                 |                    |             |

## IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

[illegible]

## V. FEEDSTOCKS (See Appendix for CAS Numbers)

| CATEGORY | 01 FEEDSTOCK NAME | 02 CAS NUMBER | CATEGORY | 01 FEEDSTOCK NAME | 02 CAS NUMBER |
|----------|-------------------|---------------|----------|-------------------|---------------|
| FDS      |                   |               | FDS      |                   |               |
| FDS      |                   |               | FDS      |                   |               |
| FDS      |                   |               | FDS      |                   |               |
| FDS      |                   |               | FDS      |                   |               |

## VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, records)



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE OR SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 31 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

Potential contamination from leaking and unsound storage areas.

01 ☒ B. SURFACE WATER CONTAMINATION 0 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

Potential contamination from uncontained wastes or discharges to the storm sewer. Value of population affected is based on the fact that there is no use of surface water for drinking within the target distance limit.

01 ☐ C. CONTAMINATION OF AIR \_\_\_\_\_ 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS \_\_\_\_\_ 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

01 ☐ E. DIRECT CONTACT \_\_\_\_\_ 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

01 ☐ F. CONTAMINATION OF SOIL \_\_\_\_\_ 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

03 AREA POTENTIALLY AFFECTED: \_\_\_\_\_ (Acres) 04 NARRATIVE DESCRIPTION

01 ☒ G. DRINKING WATER CONTAMINATION 31 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

01 ☐ H. WORKER EXPOSURE/INJURY \_\_\_\_\_ 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

01 ☐ I. POPULATION EXPOSURE/INJURY \_\_\_\_\_ 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ K. DAMAGE TO FAUNA  
04 NARRATIVE DESCRIPTION (Include names of species)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES  
(Spills/runoffs/leaking drums/leaking drums)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

Possible contamination from discharges to the storm sewer.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: 31

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e. g., state Reg., sample analysis, reports)

See attached Preliminary Assessment Report for references.

**USATHAMA  
PROPERTY  
REPORT**

The following is a waste site characterization study conducted by Roy F. Weston, Inc. for the United States Army Toxic and Hazardous Materials Agency (USATHAMA). Although this is not a required component of a preliminary assessment report, the information included in this study separates and describes the individual areas of environmental concern.

The property page (immediately following) contains general information about the facility, names the individual associated with the facility who assisted WESTON in obtaining the information, and explains ground and surface water use within a three-mile radius of the unit.

Following the property page is a list of waste sites. The materials at these sites are characterized by three basic parameters: type, quantity, and containment. The Installation Restoration Program (IRP) status column indicates the level of remediation that has been conducted. The abbreviations for these levels are: PA (Preliminary Assessment), SI (Site Investigation), RI (Remedial Investigation), FS (Feasibility Study), and RD (Remedial Design). The status of each of these levels is: C (Complete), I (Incomplete), or N (Not Done).

Following the list of waste sites is a map showing the location of each site on the facility.



USATHAMA Property Report

Property Number: 11865  
FFIS Number : DI-211621156

Name : WALTER REED ARMY MEDICAL CENTER  
Address: 6825 16TH STREET, NW

Date of Printing: 10/30/90  
Last Update: 10/30/90

WASHINGTON  
DC 20307-5001

Coord.: 38DEG 56MIN N 77DEG 02MIN W

Nearest Town : WASHINGTON DC  
Population : 640,000

Base Population : 4,500  
Command : HSC

EPA Region : 3

Support Facility: N/A

Environmental Coordinator Name : JACK MILLER  
Environmental Coordinator Address: WALTER REED ARMY MEDICAL CNTR  
HSHL-EH (P&E DIV)  
ATTN: MR. MILLER  
6825 16TH STREET NW  
WASHINGTON  
DC 20307-5001

Environmental Coordinator Phone : (202)576-0089

Date of Form Response : 07/10/90

Name of Respondee : JOHN SALE  
Title : MAINTENANCE INSPECTOR  
Time Associated : 17 YEARS

Surface Water Uses: RECREATION: ROCK CREEK 1000 FEET

Ground Water Uses : DKG: POTENTIAL FOR PRIVATE WELLS < 1 MI

Comments : ASBESTOS REMEDIATION IS ONGOING.

USATHAMA Waste Site Report

Date of Printing: 10/30/90

Last Update: 10/30/90

Property Number: 11865

Property Name: WALTER REED ARMY MEDICAL CENTER

| <u>Site Number</u> | <u>Site Name</u>          | <u>Waste Site<br/>Characterization</u>  | <u>Comments</u>   | <u>IRP Status</u>                              |
|--------------------|---------------------------|---|---|--|
| 1                  | UNDERGROUND STORAGE TANK  | Type: FUEL OIL, MOGAS, DIESEL,<br>WASTE OIL<br><br>Qty: 400000 GALLONS (MAXIMUM)<br><br>Permit: NONE                    | (8) ACTIVE TNKS:(4) FUEL OIL, (2) MOGAS/<br>DIESEL, (1) WASTE OIL & (1) BOILER BLOW-<br>DOWN TANK. (6) EMPTY ABANDONED TANKS<br>UNDER CONTRACT FOR REMOVAL. SIZE : 5000<br>TO 400000 GALLONS; TANKS COATED & WRAP-<br>PED W/CATHODIC PROTECTION. AGE & LEAK<br>TEST INFO UNKNOWN.                           | PA : C<br>SI : N<br>RI : N<br>FS : N<br>RD : N |
| 2                  | VEHICLE MAINTENANCE SHOP  | Type: OIL, GREASE, VEHICLE<br>WASHWATER, SOLVENTS,<br>ASBESTOS<br><br>Qty: EST < 15000 GALLONS/YEAR<br><br>Permit: NONE | AUTO CRAFT SHOP WHICH SERVICES 300-400<br>VEHICLES/MONTH. CONC FL; NO CURB; FL<br>DRAIN TO STORM SEWER. WASTE OIL STORED<br>IN UST (SITE #1) UNTIL CONTRACTOR DIS-<br>POSAL. (5) GAL PARTS CLEANER; USED<br>BRAKE SHOES FROM BRAKE CHANGING OPER TO<br>VENDORS. WASH RACK IN SHOP DRAINS TO<br>STORM SEWER. | PA : C<br>SI : N<br>RI : N<br>FS : N<br>RD : N |
| 3                  | ABOVE GROUND STORAGE TANK | Type: SULFURIC ACID<br><br>Qty: 300 GALLONS (MAXIMUM)<br><br>Permit: NONE   | STAINLESS STEEL TANK WITH CONC FL; 2-<br>FOOT CONCRETE CURBING FOR CONTAINMENT.<br>NO TESTING INFO.   | PA : C<br>SI : C<br>RI : N<br>FS : N<br>RD : N |

USATHAMA Waste Site Report

Date of Printing: 10/30/90

Last Update: 10/30/90

Property Number: 11865

Property Name: WALTER REED ARMY MEDICAL CENTER

|   |                                |   |   |  |
|---|--------------------------------|---|---|--|
| 4 | FRMER VEHICLE MAINTENANCE SHOP | Type: OIL, WASTE OIL, ANTI-FREEZE, BRAKE AND HYDRAULIC FLUID, SOLVENTS                                  | MAINT DONE-BLDG T-32 UNTIL 1972 & BLD#41 UNTIL 1975. CONC FL; NO CURBS,DRAINS TO SANI SWR OR NO DRAIN. WSTE OIL,SOLV,AN-TIFRZ STORED IN 55-GAL DRUMS UNTIL DISP BY CONTRCR. BATTERIES DISP BY CONTRCTR DEGREASING WW AT T-32 TO STORM SWR. WSH RACK AT BLDG #41&82,STORM SWR DISCH. POL STOR IN BLDGS. LGST CONTR IS 55-GALS. | PA : C<br>SI : N<br>RI : N<br>FS : N<br>RD : N |
|   |                                | Qty: EST 4000 GALLONS/YEAR  |   |  |
|   |                                | Permit: NONE  |   |  |
| 5 | PHOTOGRAPHIC AND X-RAY LABS    | Type: SILVER AND GOLD FROM PHOTOGRAPHIC, X-RAY, AND DENTAL WASTES                                       | WASTES PRODUCED AT VARIOUS LABS THROUGH-OUT FAC. BLDG #91: DENTAL WASTES, BY VACUUM; BLDG #54: PRODUCES PHOTOGRAPHIC WASTE THEY ARE COLLECTED IN A VAULT IN BLDG #1 WHERE THEY AWAIT DISPOSAL BY DRMO, FT. MEADE. LABS HAVE CONC FLS; NO CURB; FL DRAINS TO SANITARY SEWER.   | PA : C<br>SI : N<br>RI : N<br>FS : N<br>RD : N |
|   |                                | Qty: EST 4400 LB/YR   |   |  |
|   |                                | Permit: NONE  |   |  |
| 6 | RESEARCH LABORATORIES          | Type: HAZARDOUS AND FLAMMABLE CHEMICALS, PHOTOGRAPHIC, INFECTIOUS, PATHOLOGICAL AND RADIOLOGICAL WASTES | WSTES DISC TO SANI SWR BEFORE 1980. WSTS ARE CURR STORED IN A BUNKER UNTIL CNTRCT DISP. SILVER,GOLD FROM PHOTOGRAPHIC, X-RAY & DENTAL WSTE RECOV THRU DPDO. RAD WSTE DISP BY HEALTH PHYSICS OFFICE. LABS ARE INSIDE W/CONC FL, NO CURB, DRAINS TO SANI SWR OR NO DRAINS. LARGEST CONTAINER IS 5 GALLONS.                      | PA : C<br>SI : N<br>RI : N<br>FS : N<br>RD : N |
|   |                                | Qty: EST < 5 GALLONS/LAB/WEEK   |   |  |
|   |                                | Permit: NONE  |   |  |

USATHAMA Waste Site Report

Property Number: 11865

Property Name: WALTER REED ARMY MEDICAL CENTER

Date of Printing: 10/30/90

Last Update: 10/30/90

|   |                          |   |   |  |
|---|--------------------------|---|---|--|
| 7 | HAZARDOUS STORAGE BUNKER | Type: XYLENE, TOLUENE, ACETONE,<br>METHANOL, HCl/CHROMIC ACID<br>MIX, DILUTE HCl ACID, N-<br>DIMETHYL FORMAMIDE, HEZANE | SINCE 1980 NEW & USED SOLUTIONS ARE SENT<br>HERE FOR STOR IN ORIGINAL LABELED CON-<br>TAINERS. CHEMS ARE SEGREGATED, STORED<br>ON CHEMICAL RESISTENT RACKS UNTIL DIS-<br>POSAL BY HAZ WASTE CONTRACTOR. BUNKERS<br>HAVE CONCRETE FLS CURBING AND NO DRAINS.<br>LGST CONTAINER IS 55 GALS. | PA : C<br>SI : N<br>RI : N<br>FS : N<br>RD : N |
|   |                          | Qty: EST 27000 LB/YR  |   |  |
|   |                          | Permit: NONE  |   |  |
| 8 | FORMER RANGE             | Type: LEAD  | AN INDOOR BALLISTICS RANGE IN BLDG #54<br>UNTIL 1980. USE WAS DISCONTINUED DUE TO<br>EXCESSIVE ATMOSPHERIC LEVELS OF LEAD.<br>NO INFORMATION AVAILABLE ON CONTAINMENT.<br>NO LIKELY MIGRATORY PATHWAY.  | PA : C<br>SI : N<br>RI : N<br>FS : N<br>RD : N |
|   |                          | Qty: EST < 50 TONS  |   |  |
|   |                          | Permit: NONE  |   |  |
| 9 | PRINT SHOP               | Type: PETROLEUM DISTILLATE,<br>METHYLENE CHLORIDE, INK,<br>ISOPROPYL ALCOHOL, PHOTO-<br>GRAPHIC WASTES                  | AG PRINT SHOP IN BLDG #1 SINCE 1977<br>WASTES DISCARDED INTO TRASH VIA RAGS.<br>LGST CONTAINER IS 1 LITER. AFIP PRINT<br>SHOP IN BLDG #54 SINCE 1954. SOLV DIS-<br>CARDED INTO TRASH VIA RAGS, WW & PHOTO-<br>GRAPHIC WASTES DISCH TO SANITARY SEWER.<br>LARGEST CONTAINER IS 5 GALLONS.  | PA : C<br>SI : N<br>RI : N<br>FS : N<br>RD : N |
|   |                          | Qty: EST 1000 GALLONS/YEAR  |   |  |
|   |                          | Permit: NONE  |   |  |

USATHAMA Waste Site Report

Date of Printing: 10/30/90

Last Update: 10/30/90

Property Number: 11865

Property Name: WALTER REED ARMY MEDICAL CENTER

10 OFFICE MACHINE REPAIR SHOP Type: TCE, BENZENE, PETROLEUM  
DISTILLATE

Qty: EST 630 GALLONS/YEAR

Permit: NONE

LOC W/I BLDG W/CONC FL; NO CURB; FL  
DRAIN TO SANI SWR. TCE USED AS A FLUSH-  
ING SOLVENT, EVAPORATED OR DISCARDED IN  
TRASH VIA RAGS. WASH TANK SOLVENT (BEN-  
ZENE, PETROLEUM DISTILLATE) DRAINED TO  
55-GAL DRUM DISP BY CONTRACTOR MONTHLY.  
LARGEST CONTAINER: 55 GALS.

PA : C  
SI : N  
RI : N  
FS : N  
RD : N

11 TRANSFORMERS Type: PCBS IN TRANSFORMER OIL

Qty: < 500 GALLONS OIL (MAX)

Permit: NONE

(38) PAD MOUNTED AND (28) IN UNDERGROUND  
VAULTS LOCATED THROUGHOUT FACILITY;  
ALL ARMY OWNED. INSTALLATION DATES VARY.  
TESTED FOR PCBS IN 1986; (46) CONTAIN  
GREATER THAN 500 ppm AND (20) CONTAIN  
15-500 ppm. LEAKING TRANSFORMERS  
CONTRACTOR DRAINED THEN DISPOSED AT FORT  
BELVIER, VA.

PA : C  
SI : N  
RI : N  
FS : N  
RD : N

12 FORMER SHOPS Type: WASTEWATER, CHLORINE,  
PERCHLOROETHYLENE, PAINT

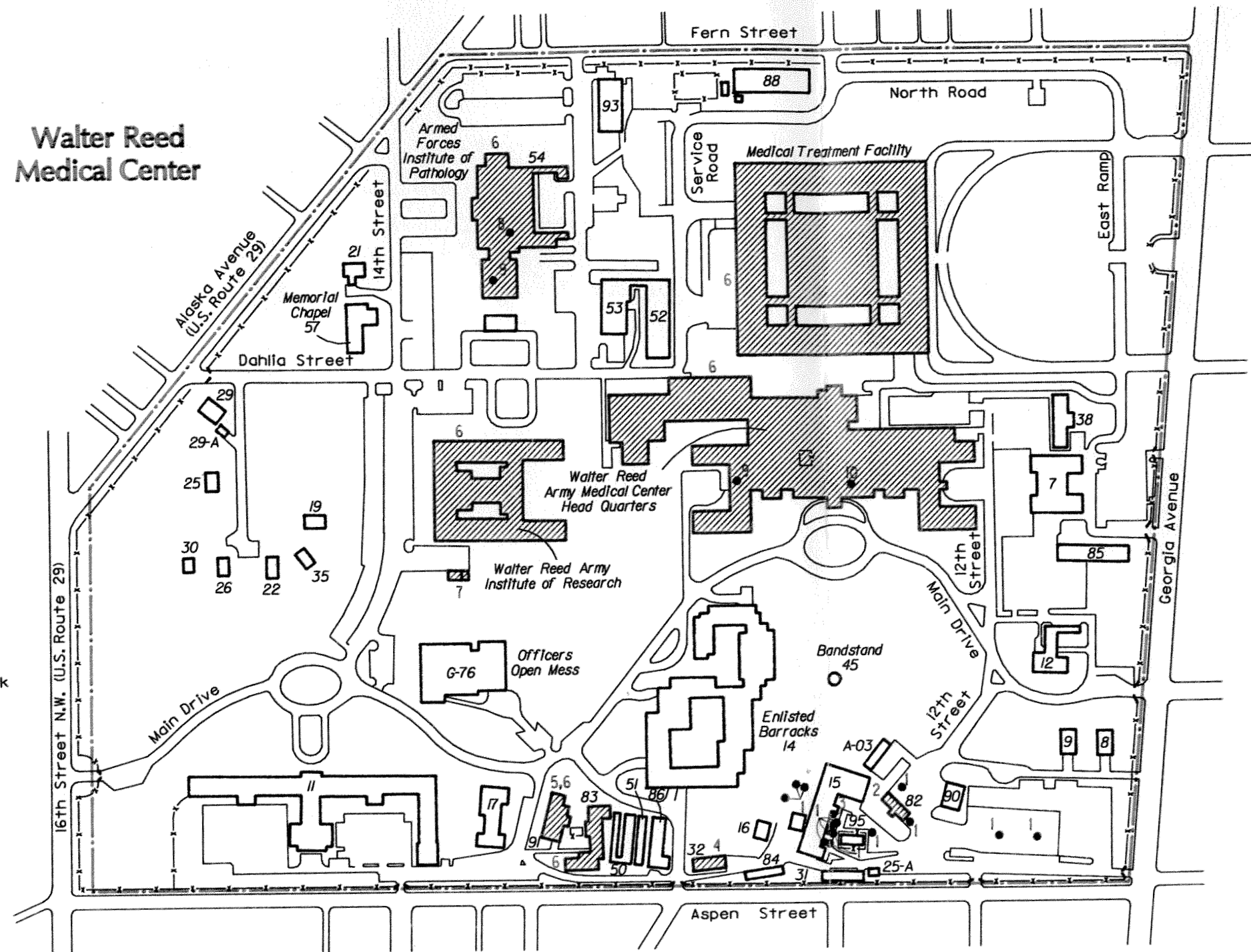
Qty: EST 70000 GALLONS/YEAR

Permit: NONE

LAUNDRY FACILITY (BLDG #56) UNTIL 1976,  
WASTEWATER DISCHARGED TO SANITARY SEWER.  
OFFICE MACHINE REPAIR SHOP (BLDG #33)  
UNTIL 1977, CLEANING SOLVENTS EVAPORATED  
OR DISCARDED IN TRASH VIA RAGS. PAINT  
SHOP (BLDG #5) UNTIL 1972; OTHER INFO UN-  
KNOWN. NO INFO ON CURBING OR FL DRAINS.

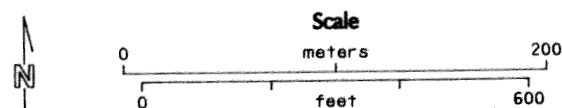
PA : C  
SI : N  
RI : N  
FS : N  
RD : N

# Walter Reed Medical Center



- 1 - Underground Storage Tank
- 2 - Vehicle Maintenance Shop
- 3 - Above Ground Storage Tank
- 4 - Former Vehicle Maintenance Shop
- 5 - Photographic and X-Ray Labs
- 6 - Research Laboratories
- 7 - Hazardous Storage Bunker
- 8 - Former Range
- 9 - Print Shop
- 10 - Office Machine Repair Shop
- 11 - Transformers (Located Throughout Facility, Not Shown)
- 12 - Former Shops (Not Shown on Map)

## Walter Reed Army Medical Center Washington D.C. Waste Site Locations



14-August-1990

USGS MAP

Topographic  
Map is too  
large to scan