## 5.12 SWMU 20: BUILDING 521 (CRATING FACILITY)

### 5.12.1 Site Description and Waste Generation

Building 521 is located in the north-central portion of the installation (Figures 5.0-1 and 5.12-1). Building 521 was originally a carpentry shop. It then became a less than carload facility, where small smoke pot shipments were processed for transport (USAEHA 1986). The facility was idle for several years and was then occupied by surveillance shops. At that time, a septic tank was installed to accommodate personnel occupying the building. The dates that these activities occurred are unknown.

Ertec (1982) listed the following potential contaminants associated with SWMU 20: AC, CG, CK, mustard, GB, VX, vehicle shop petroleum products, and perchloric acid. The source of Ertec's information is unknown.

### 5.12.2 Site Hydrogeology

SWMU 20 is located on a slightly southwest-sloping topographic surface at approximately 5,250 ft above msl in the north central part of TEAD-S. The site is underlain by Quaternary alluvial deposits. No soil samples were collected at this site.

The direction of groundwater flow at SWMU 20 is unknown but is assumed to be to the southwest. The depth to groundwater is estimated to be 150 ft.

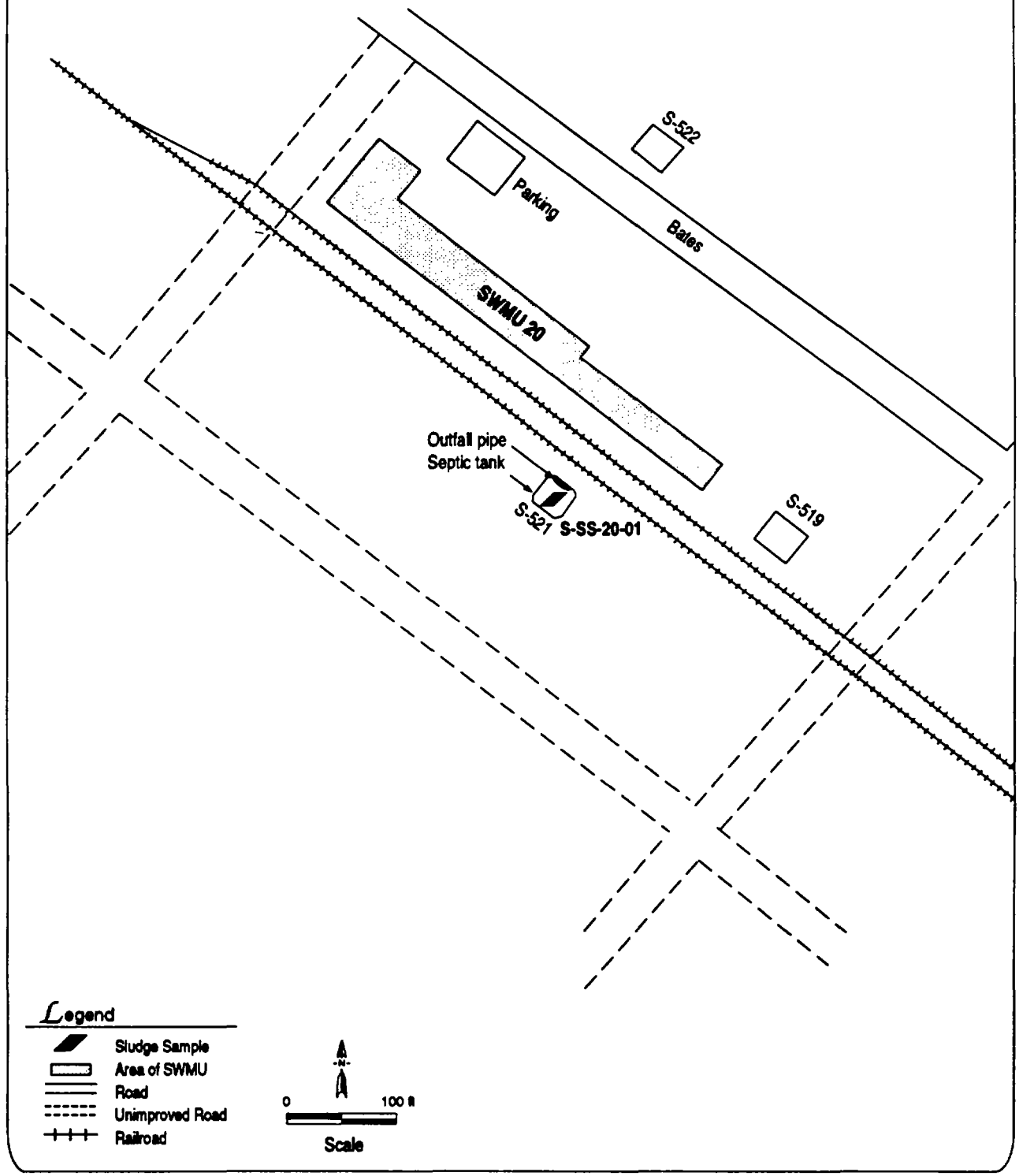
### 5.12.3 Previous Sampling and RFI-Phase I Sampling Results

No soil or groundwater samples were collected in the vicinity of SWMU 20 during previous sampling and analysis programs. A sludge sample was collected from the SWMU 20 septic tank in June 1992. This sample was analyzed for volatile and semivolatile organics, agent breakdown products, and metals. Detections in this sample are presented in Table 5.12-1. A liquid sample was not collected from the tank due to the absence of liquid during the additional sampling program. The location of the septic tank sample, detected analytes, and their concentrations are presented in Figures 5.12-2 and 5.12-3.

### 5.12.4 Contamination Assessment

Four volatile organic and five semivolatile organic compounds were detected in the septic tank sludge sample. Of these, acetone, methylene chloride, and methylethyl ketone were present in low concentrations that may suggest laboratory contamination. Each of these three compounds are common laboratory contaminants. The 1,4-dichlorobenzene may be present due to past use of sanitary deodorants, of which it is a common ingredient (Howard, 1989). However, the concentration of this compound is also low.

The detection of the semivolatile organic 4-chloroaniline may be attributed to the use of dyes present in various sanitary products. Both bis(2-ethylhexyl) phthalate and butylbenzyl phthalate are common components of plastic products. Their presence may be from past use of such plasticizers in Building 521, although the reason for their use is unknown. The presence of




Source:
Basic Information Maps 1985
Weston 1991
EBASCO Field Measurment 1992

**Figure 5.12-1**
**Site Map**
**SWMU 20 - Building S-521 (Crating Facility)**

Tooele Army Depot - South Area
Prepared by: Ebasco Services Incorporated

EBASCO

**TABLE 5.12-1** **Summary of RFI-Phase I Investigations for SWMU 20: Building 521 (Crating Facility)**



## SLUDGE (µg/g)

| Analytical Groups and Analytes Detected | S-SS-20-01 |
|---|---|
| ***Volatile Organics:*** | |
| 1,4-Dichlorobenzene (14DCLB) | 0.65 |
| Acetone (ACET) | 0.71 |
| Methylene chloride (CH2CL2) | 0.030* |
| Methylethyl ketone (MEK) | 0.11 |
| Unknowns | 0.14 |
| ***Semivolatile Organics:*** | |
| 1,4-Dichlorobenzene (14DCLB) | 7.8 |
| 4-Chloroaniline (4CANIL) | 8.7 |
| Bis(2-ethylhexyl)phthalate (B2EHP) | 45 |
| Butylbenzyl phthalate (BBZP) | 4.8 |
| Naphthalene (NAP) | 90 |
| Unknowns | 1400 |
| ***Agent Breakdown Products: None detected*** | |
| ***Metals:*** | |
| Arsenic (As) | 19 |
| Cadmium (Cd) | 15 |
| Chromium (Cr) | 57 |
| Copper (Cu) | 1900 |
| Lead (Pb) | 2400 |
| Merciry (Hg) | 2.9 |
| Nickel (Ni) | 57 |
| Selenium (Se) | 7.1 |
| Silver (Ag) | 3.2 |
| Sodium (Na) | 310 |
| Zinc (Zn) | 8100 |

* Detected in associated method blank
µg/g Microgram per gram

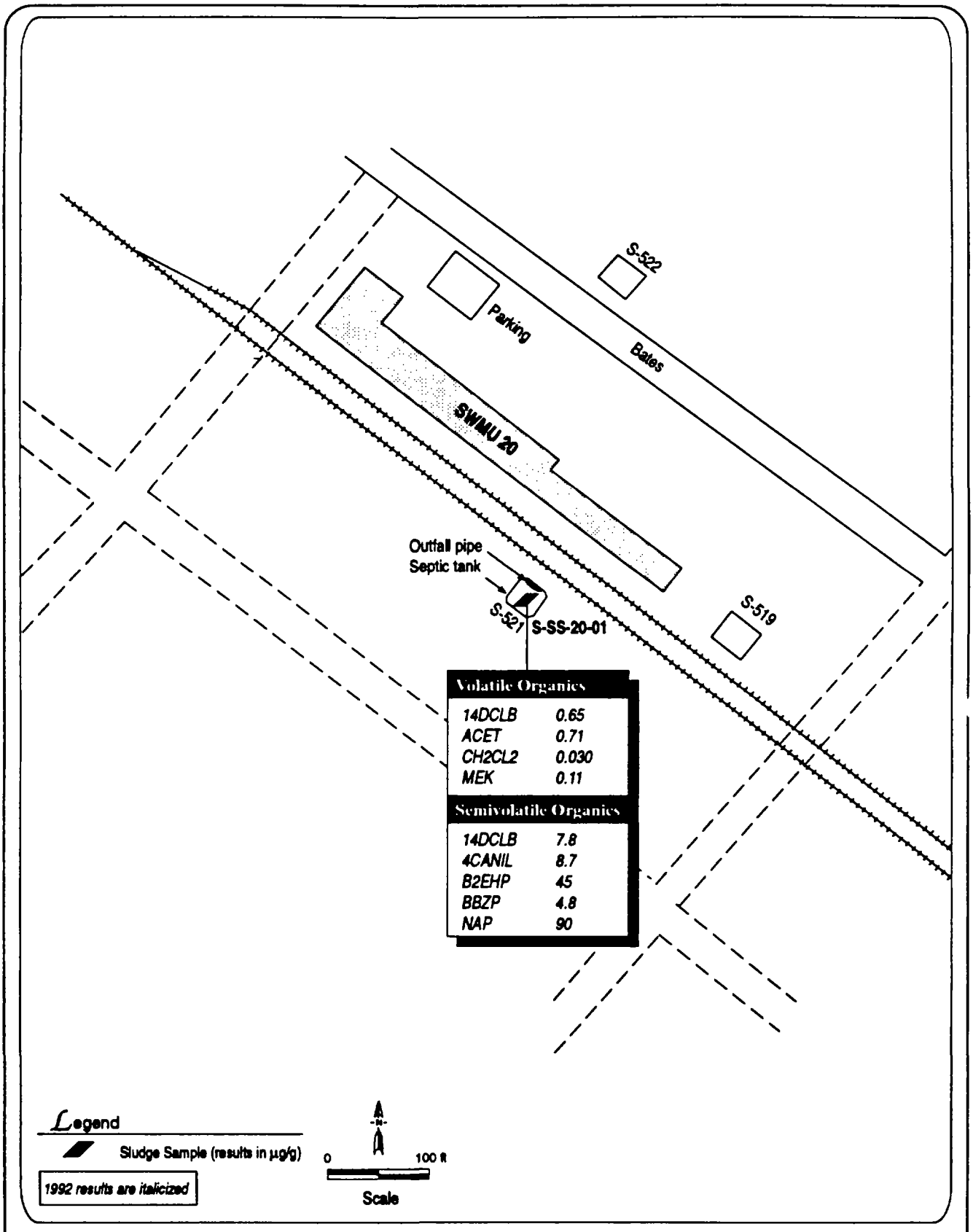



**Figure 5.12-2**
**SWMU 20 - Building S-521 (Crating Facility)**
**Organics**

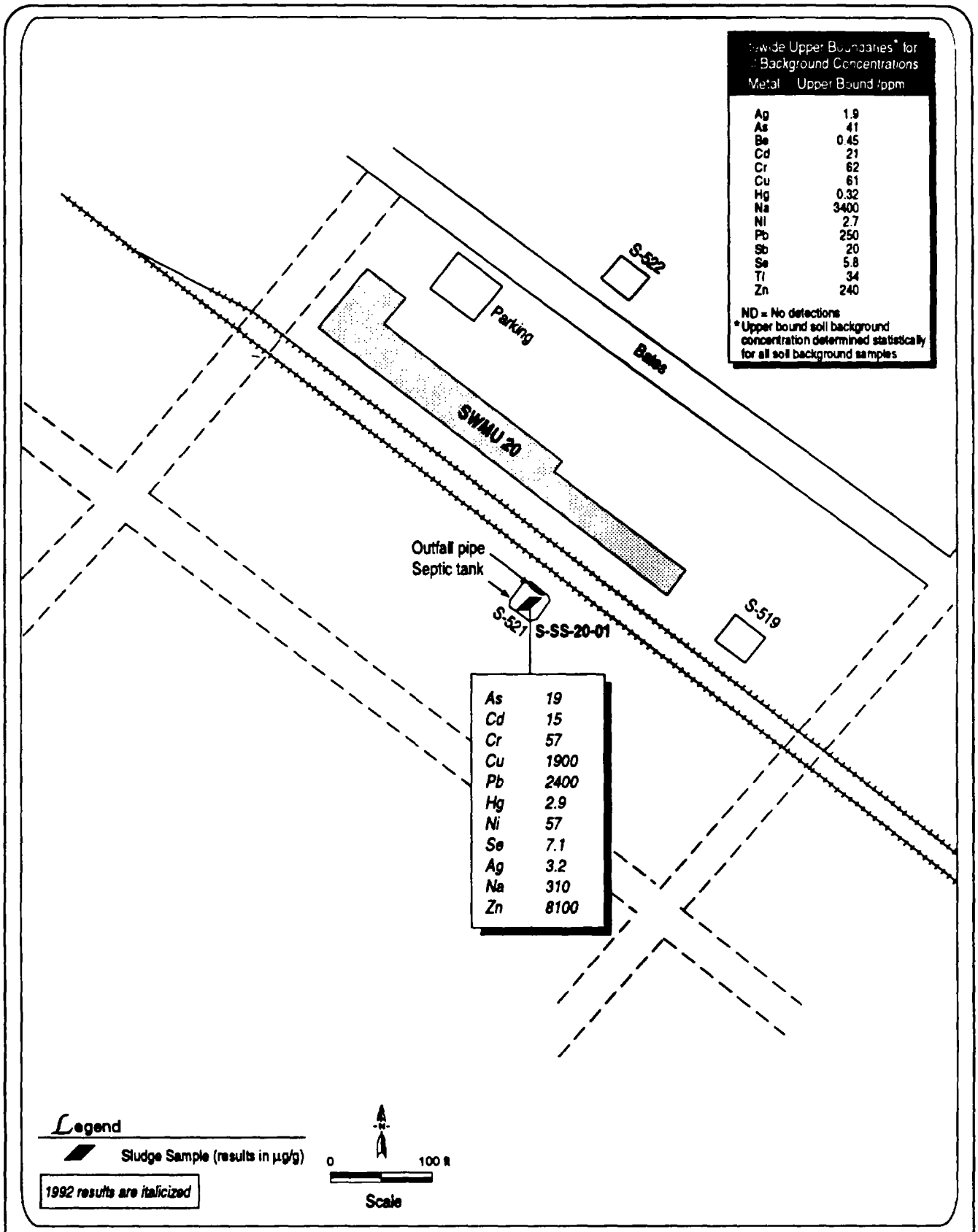



**Figure 5.12-3**
**SWMU 20 - Building S-521 (Crating Facility)**
**Metals**

naphthalene in the sample may be due to past use and discharge of shop petroleum products at the building. Several metals were also detected in the sludge sample, although many are near or below background metals concentration for native soils. Copper, lead, mercury, nickel, and zinc exceeded their respective background concentrations by one or two orders of magnitude. However, their presence is most likely due to concentration of trace amounts of metals over time in the septic sludge. All of the metals, with the exception of mercury, may be common components of the septic system piping.

5.12.5 Recommendations

Analytical results of the septic tank sludge sample indicate concentrations of semivolatile organic compounds that may be due to past disposal of plasticizers and petroleum products, as well as accumulations of several metal species. Based on these results, two soil borings are recommended next to the septic tank to evaluate whether a discharge of these contaminants has occurred beyond the tank (Figure 15.12-4). These borings should be completed to a depth of at least 10 ft below the septic tank outlet. Soil samples should be collected at depths of 4 to 5 ft and 9 to 10 ft below the this depth, and analyzed for semivolatile organic compounds and metals.

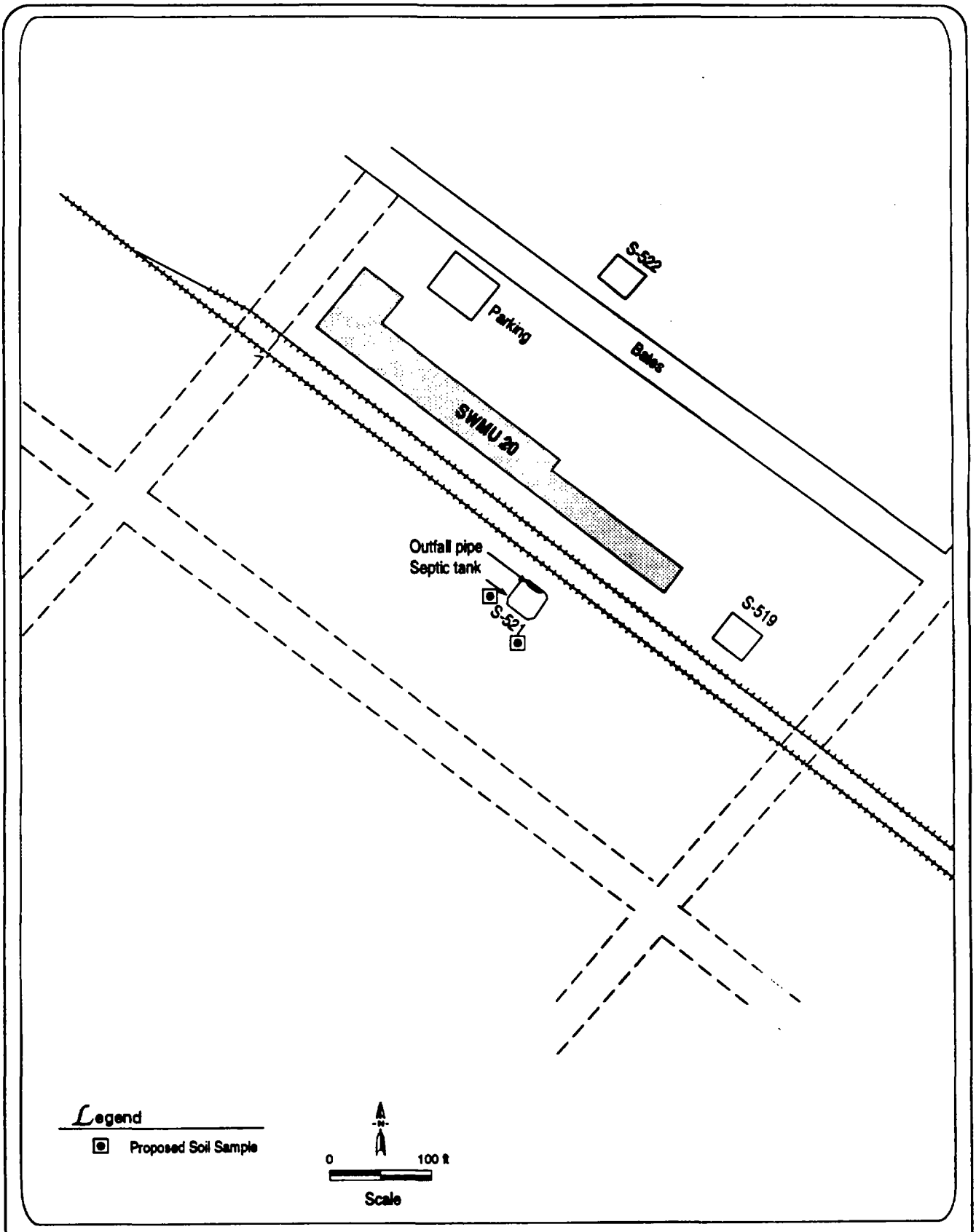



**Figure 5.12-4**
**SWMU 20 - Building S-521 (Crating Facility)**
**Proposed Sampling Locations**