

TA-18

PRS 18-003(a-d, g)

HOLDING TANK AND SEPTIC TANKS

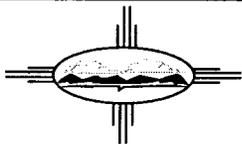
TA-18

SRS Ranking-53

HSWA SWMUs



1551



*Los Alamos National Laboratory
Environmental Restoration Project*

2110/99



VG-97-057 (1)

Unit Type: Septic Tanks
SRS No. 53
PRSs 18-003(a-d) on Watercourse List
PRS 18-003(g) not on Watercourse List

**Los Alamos National Laboratory
Environmental Restoration Project
Proposed VCA Fact Sheet
PRSs 18-003(a,b,c,d, and g) - Holding Tank and Septic Tanks**

Description:

Potential release sites (PRSs) 18-003(a,b,c, and d) are an abandoned holding tank and septic tanks that serviced buildings at TA-18 (referred to as Pajarito Site). PRS 18-003(a) has been used since 1947. It is a reinforced concrete structure that measures 5.3 ft wide by 5.3 ft long by 12 ft high. It has a removable steel holding tank that measures 2 ft in diameter and is 5 ft high. The acid sinks from Building TA-18-23 drained into the holding tank; this wash water potentially contained radionuclides. PRS 18-003(b) was placed in service in 1947 to receive sanitary waste from the restroom in Building TA-18-23. The septic tank is constructed of reinforced concrete, measures 4 ft wide by 7 ft long by 5.5 ft high, and has a 524-gallon capacity. PRS 18-003(c) was placed in service in 1952 to receive sanitary waste from the restroom in Building TA-18-32. This tank is constructed of reinforced concrete, measures 6 ft in diameter by 7 ft long, and has a 587-gallon capacity. PRS 18-003(d) was placed in service in 1960 to receive sanitary waste from Building TA-18-116. The dimensions of this tank are not known, but the estimated capacity is 500 gallons. PRS 18-003(g) has been in use since 1944 to receive sanitary waste from Building TA-18-1, including its photochemical laboratory. It is presently receiving sanitary waste only from the restrooms in Building TA-18-1. This septic tank is connected to the active sewer line that presently services TA-18. This septic tank is made of reinforced concrete and is 3 ft wide by 5 ft long by 5 ft high. The tank's capacity is approximately 800 gallons. PRSs 18-003(a,b,c,d, and g) are listed in Table A of the Hazardous and Solid Waste Amendments (HSWA) Module of the Laboratory's RCRA permit.

Contaminants:

The contents of all these tanks were removed and the tanks pressure rinsed as part of an interim action in 1996. The liquids and sludge in the tanks contained volatile organic compounds (VOCs)—notably trichloroethylene—metals, and uranium isotopes. Soil sampling adjacent to the tanks, conducted as part of the RFI in 1994, detected concentrations of some of these contaminants, but at concentrations less than EPA Region 9 residential preliminary remedial goals (PRGs).

Rationale:

Concentrations of potential contaminants in the soil surrounding the tanks are below EPA Region 9 PRGs. Thorough cleaning of the tanks will remove residual waste materials and ensure that any contamination that may have permeated the structural materials of the tanks do not present an unacceptable risk to human health.

Voluntary Corrective Action:

The lid of each tank will be removed to expose all interior surfaces. The septic tanks will be pressure rinsed to remove any residual materials, and confirmatory samples of the rinsate water will be taken to verify that contaminant concentrations are less than applicable water quality standards. A small amount of concrete will be chipped from the floor of each tank and sent to a laboratory for analysis as part of the confirmatory sampling process. Contaminant concentrations in the concrete will be compared with EPA Region 9 industrial PRGs for soil. After verifying that contaminants are at acceptable concentrations, the tanks will be filled with flowcrete so that the inlet and outlet lines are plugged and to prevent any future flow of water through the tanks.

Unit Type: Septic Tanks
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PRS 18-003(g) not on Watercourse List

Expected Waste Types and Volumes:

The waste that will be generated by this VCA will about 50 gallons of rinsate water per tank.

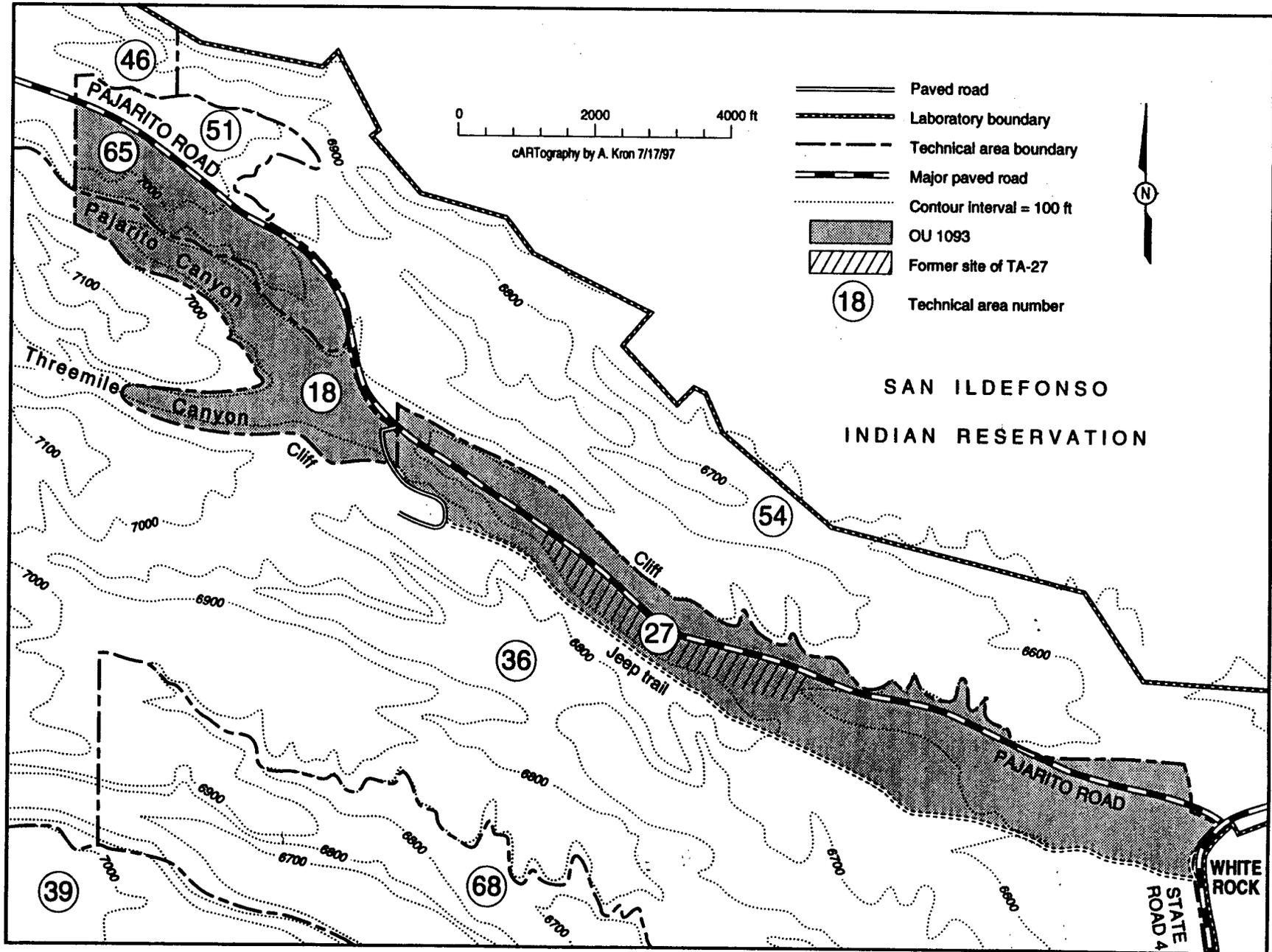
Cost:

The estimated cost for this VCA is approximately \$250,000, including the planning, cleanup, waste disposal, site restoration, and report writing.

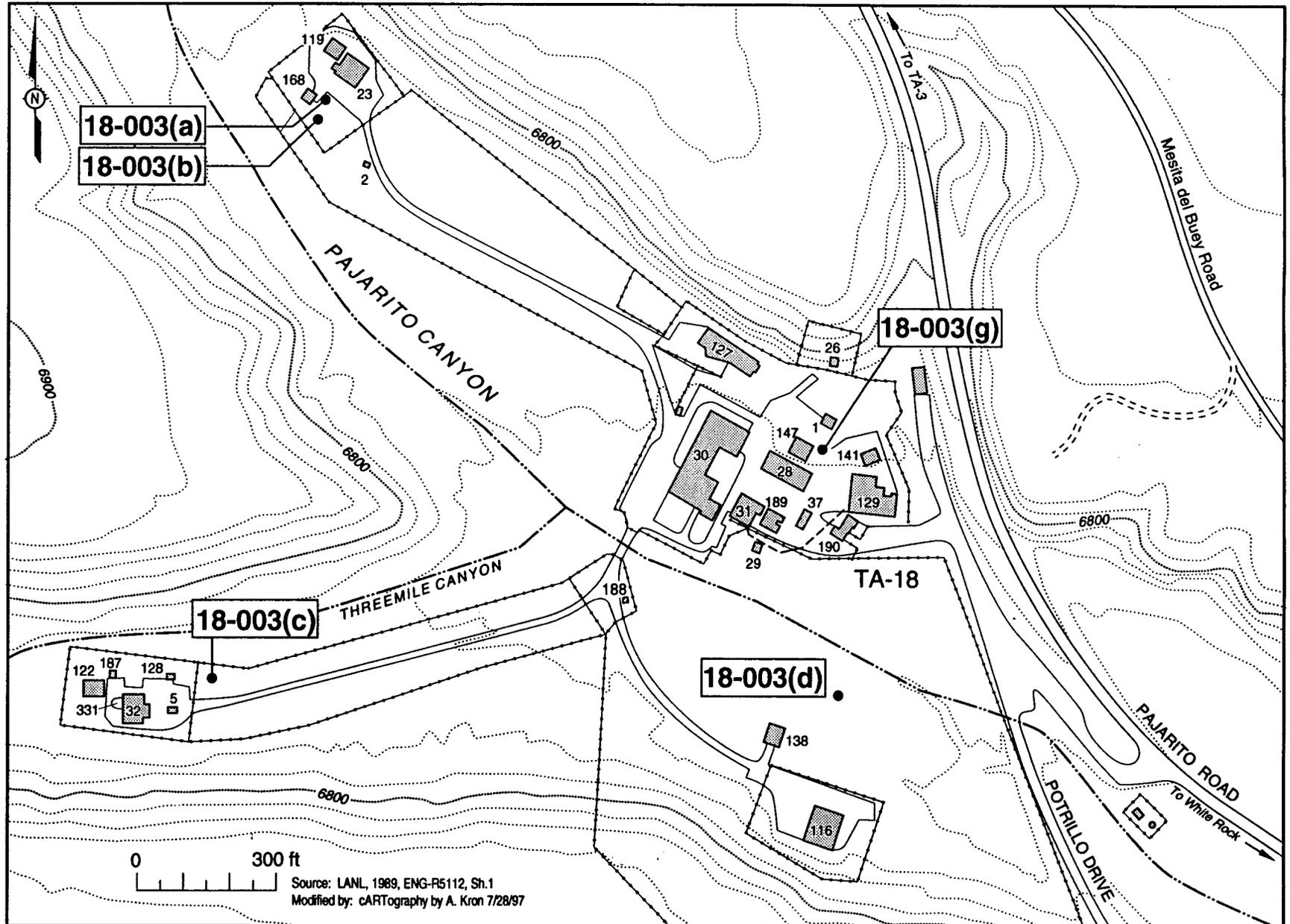
Schedule:

The VCA is scheduled to occur by August 30, 1997. The completion report will be submitted by September 30, 1997.

Location of Operable Unit 1093



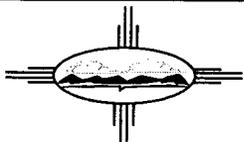
Locations of septic systems at TA-18



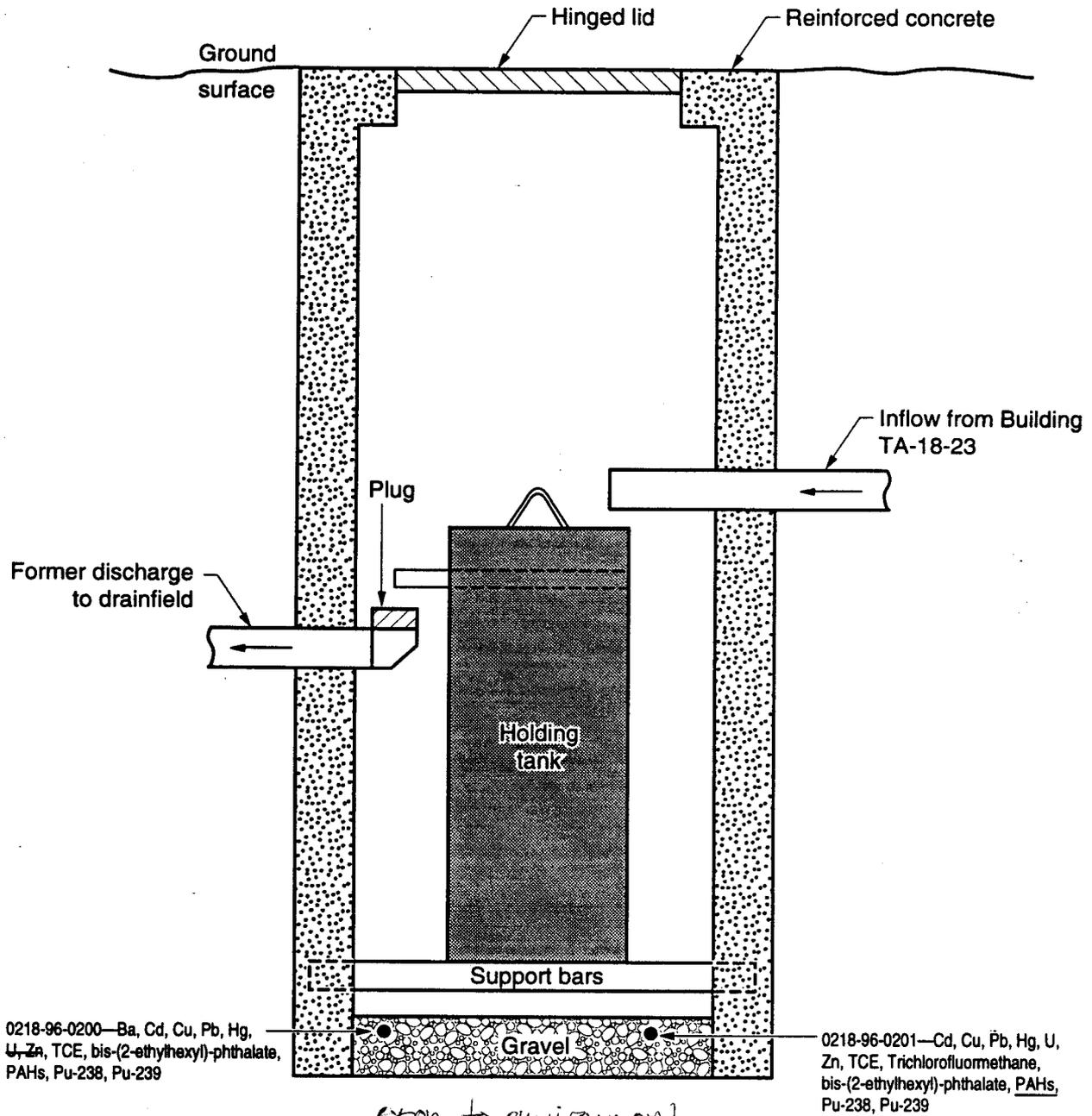
PRS Descriptions

PRS 18-003(a) Holding Tank

- ◆ Placed in service in 1947
- ◆ Steel tank (120-gallon capacity) in open-bottom concrete vault
- ◆ Tank overflow discharged to drainfield at PRS 18-003(b)
- ◆ Overflow plugged in 1995
- ◆ Tank received industrial waste from Building TA-18-23 - nuclear criticality experiments
- ◆ Tank contents removed and tank pressure-rinsed in 1996
- ◆ Inflow lines to tank plugged in 1997



PRS 18-003(a)



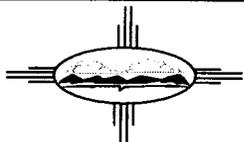
open to environment - water table has been above bottom of well at times

●	Sample location	0	1	2 ft
0218-96-0200	Sample number—analytes shown are detected inorganics above background and all detected organics; analytes underlined exceed SALs	cARTography by A. Kron 12/20/96 Source: LASL 10/23/46, ENG C-12077		

PRS Description (continued)

PRS 18-003(b)

- **Placed in service in 1947**
- **Reinforced concrete tank, approximately 500-gallon capacity**
- **Liquid effluent from tank discharged to drainfield**
- **Received sanitary and industrial waste from Building TA-18-23 - nuclear criticality experiments**
- **Tank contents removed and tank pressure-rinsed in 1996**
- **Sanitary facilities and floor drains discharging to tank taken out of service in 1995**



Cross section view of Septic Tank 18-39

