

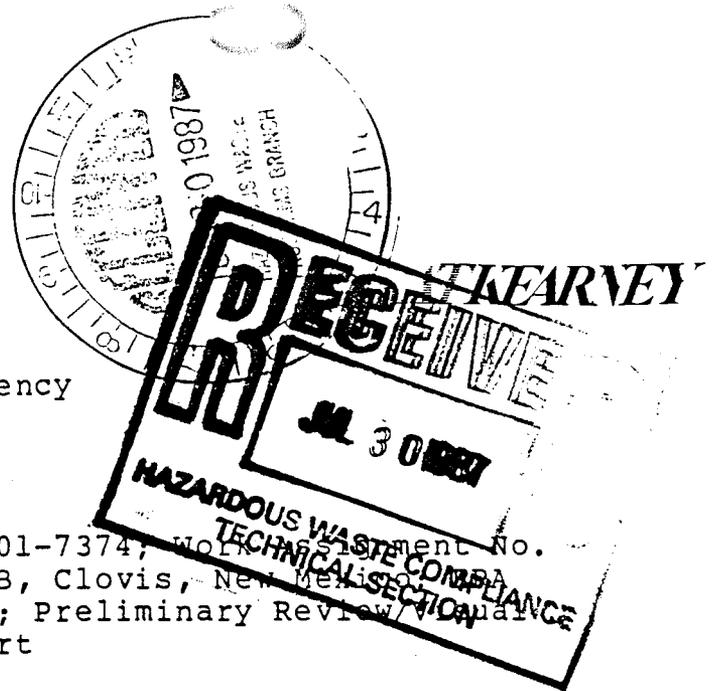
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Management  
Consultants

July 29, 1987

Mr. Tom Clark  
Regional Project Officer  
U.S. Environmental Protection Agency  
Region VI  
1445 Ross Avenue  
Dallas, Texas 75202-2733

Reference: EPA Contract No. 68-01-7374, Work Order No. R26-01-11; Cannon AFB, Clovis, New Mexico, ID No. NM 7572124454; Preliminary Review/Visual Site Inspection Report



Dear Mr. Clark:

Enclosed is the Preliminary Review/Visual Site Inspection Report for the Cannon AFB located in Clovis, New Mexico. This report presents the results of the Preliminary Review (PR) and Visual Site Inspection (VSI) portions of the RCRA Facility Assessment for this facility. The VSI Trip Report, VSI Field Notes, and VSI Photo Log are included as attachments to this report.

Based on a review of the available information and observations made during the VSI, 128 Solid Waste Management Units (SWMUs) and 51 Other Areas of Concern were identified at the Cannon AFB facility.

A number of units have undergone soil surface sampling. Where sampling has been performed and sufficient data is available for evaluation, additional sampling is desirable but not essential. However, during the PR and VSI, several (unsampled to date) units appear to warrant surface soil sampling to determine if there has been a release of hazardous wastes or constituents to the environment. These are:

<u>SWMU NO.</u>	<u>UNIT NAME</u>
31	AGE Maintenance Shop Pad
73	Storm Water Drainage and Retention Pond Area
81	Solvent Disposal Site
111	Unlined Pit
118	Melrose Bombing Range Unexploded Ordnance Open Burn Treatment Pit

Mr. Tom Clark  
July 29, 1987  
Page 2

It is recommended that in areas where prior sampling has been performed and release evident, deeper sampling be undertaken by the facility to ascertain whether hazardous constituents have breached the upper caliche zone.

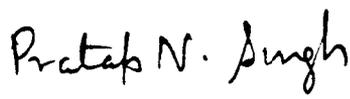
Groundwater data was minimal and should be provided by the facility, particularly in the vicinity of areas with higher potential for release such as areas where a hydraulic head is placed on underlying stratum. The following areas are of particular concern:

<u>SWMU NO.</u>	<u>UNIT NAME</u>
73	Storm Water Drainage and Retention Pond
85	Storm Water Collection Point
89	Engine Test Cell Evaporation Pond
101	Wastewater Treatment Lagoons
103	Wastewater Playa Lake

The largest Playa Lake (SWMU No. 103) receives wastewater from the Wastewater Treatment Lagoons (SWMU No. 101). Effluent from this unit is being sold to the neighboring farmer for irrigation purposes. This transfer of water off-base could potentially be a release pathway, and the practice should be reconsidered.

Sincerely,

  
for Lee Deets  
Technical Director

  
for Don R. Beasley  
Program Director

Enclosure

cc: A. Pearce, EPA OSW  
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109. UNIT NAME: Fire Department Training Area No. 4

Unit Description: This unit is an unlined fire training area in the Southeast Area of the Air Force Base, near SWMU Nos. 107, 113, and 56. The area is circular, about 400 feet in diameter with a slight slope towards the center (Ref. 6). A mock aircraft is situated on a concrete pad in the center of the area. Subsurface fuel lines from the underground POL Tank No. 2336 (SWMU No. 110) connect to various points on the aircraft. Recovered JP-4 fuel is pumped from the storage tank to the aircraft prior to practice burns. Runoff from the area is currently collected in an Oil/Water Separator No. 2336 (SWMU No. 112) adjacent to the site. Prior to 1985, runoff was diverted to an Unlined Pit (SWMU No. 111) (Ref. 6 and 47).

This site was reportedly used from 1961 to 1974 as a fuel truck cleaning area in which residual fuels were drained onto the ground, and the fuel tanks were then cleaned at the site. This practice ended about 1974 when the fire training exercises were initiated. For the fire department training exercises, the ground was saturated with water prior to applying commingled wastes or recovered JP-4 fuel onto the ground; however, presaturation was not practiced when fuel trucks were cleaned at the site prior to 1974 (Ref. 6).

Soil borings indicate the topsoil in the Fire Training Area is about 4.5 feet of silty sand. A caliche horizon containing abundant sand and silt layers extends to a depth of 45 feet (Ref. 46). This unit was identified as Site No. 9 in the IRP Phase I study (Ref. 6).

Date of Start-Up: Use of this unit as a fire training area began in 1974. The site was reportedly used as a fuel truck cleaning area between 1961 and 1974 (Ref. 6).

Date of Closure: The unit is active (Ref. 47).

109. (Cont'd.)

## Fire Department Training Area No. 4

## Wastes Managed:

From 1974 to 1975, commingled waste oils, solvents, and recovered JP-4 fuels were burned at the site; however, since 1975, only recovered JP-4 fuel has been burned at this site. For each exercise, occurring twice a month, about 300 gallons of wastes have been burned (Ref. 6).

## Release Controls:

The unit is not lined. Runoff is currently collected in Oil/Water Separator 2336 (SWMU No. 112) (Ref. 47).

## Release History:

Between 1961 and 1974, the tank truck residual fuels that did not volatilize would have percolated into the ground. From 1974 to the present, during burn exercises, most of the commingled wastes and recovered JP-4 fuel would have been consumed in the fires; however, some minor percolation into the ground has probably occurred. It is not known what quantities of fuels and commingled wastes have percolated into the ground; however, it is estimated that during the pre-1974 practice, up to 4,000 gallons percolated into the ground (Ref. 6).

During 1985, two deep soil borings were drilled at this site to evaluate the impact of past and ongoing activities and to define the site-specific hydrogeologic conditions. Five samples from the soil borings were analyzed. Results of the analysis are summarized in Table 109 and Figure 109 following this page. Sampling at this unit found no purgeable halocarbons or volatile hydrocarbons. Elevated levels of lead (39 mg/kg) and oil and grease (110 mg/kg and 280 mg/kg) were detected in the area where runoff was diverted to an Unlined Pit (SWMU No. 111) in the past. The Unlined Pit was replaced with an Oil/Water Separator (SWMU No. 112) in 1985 (Ref. 46).

Table 109

Results of Analysis of Soil Samples for  
Fire Department Training Area No. 4

sample #	Depth	O&G*	Pb*	Purgeable Organic Compounds (EPA 8010/8020) (ug/kg)
9A-2A**	10.5-11.5'	280	5.3	ND
9A-1	5.5-7.0'	ND	4.1	ND
9A-2	10.5-11.5'	110	39.0	ND
9B-1	4.0-5.5'	ND	4.5	ND
9B-2	9.0-10.5'	ND	3.7	ND
9B-3	43.0-45.0'	37	1.3	ND

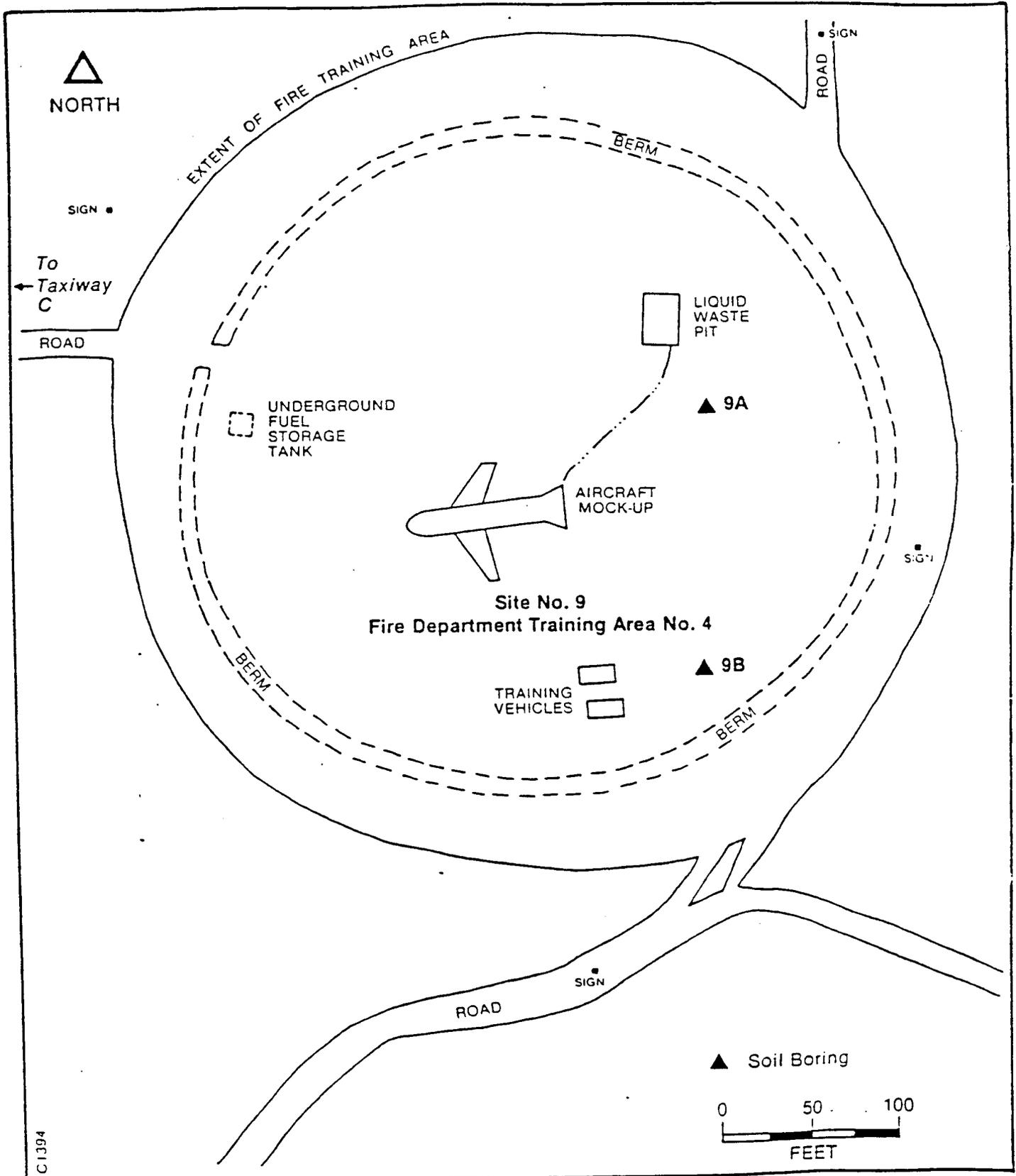
\*all values in mg/kg, except as noted

\*\*duplicate analysis

ND = not detected, detection limits and analytical techniques are listed in  
Appendix A

Source: Reference 46

Figure 109  
Soil Boring Locations  
at Fire Department Training Area No. 4



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110. UNIT NAME: Underground Waste Oil Tank No. 2336

Unit Description: This unit is an underground 2,000-gallon storage tank, located at the active Fire Department Training Area No. 4 (SWMU No. 11) (Ref. 6). The tank, which is connected to various points on the mock aircraft, is used to store recovered JP-4 fuel prior to burning in the fire training exercises. About 300 gallons of JP-4 fuel is used to ignite a practice burn. The tank, of unknown construction, collects recovered JP-4 fuel from Oil/Water Separator No. 2336 (SWMU No. 112) (Ref. 47). The majority of the recovered JP-4 fuel that is stored in the tank, however, is collected in bowzers and 55-gallon drums from various locations on the base, and is transported to the Fire Department Training Area for disposition in the tank (Ref. 6).

Date of Start-Up: Use of this unit began in 1975 (Ref. 6).

Date of Closure: The unit is active (Ref. 47).

Wastes Managed: The tank contains recovered JP-4 fuel collected from Oil/Water Separator No. 2336 (SWMU No. 112) and other locations on the Air Force Base (Ref. 6 and 47).

Release Controls: No release controls were observed during the VSI (Ref. 47).

Release History: No releases have been documented (Ref. 47).

111. UNIT NAME: Unlined Pit

Unit Description: This unit was an unlined pit adjacent to the active Fire Department Training Area No. 4 (SWMU No. 109). Runoff from the area, including recovered JP-4 fuel, collected in the pit prior to 1985 (Ref 6). The soil at the bottom of the pit provided some natural filtration but did not prohibit downward migration of liquid waste. During the VSI, the site of this unit was observed covered with soil and sparse vegetation, occupying an area 10 feet by 20 feet. The pit is no longer used, as it was replaced by an Oil/Water Separator No. 2336 (SWMU No. 112) in the same location (Ref. 47).

Date of Start-Up: Use of this unit began in 1975 (Ref. 6).

Date of Closure: The unit was closed in 1985 (Ref. 47).

Wastes Managed: JP-4 fuel and Aqueous Fire-Forming Foam (AFFF) was collected in this unit (Ref. 6 and 47).

Release Controls: No release controls were observed during the VSI (Ref. 47).

Release History: In 1985, soil borings were drilled at the site of the Fire Training Area No. 4 (SWMU No. 109). The results of the sampling analysis are discussed in the Release History of SWMU 109 and in Table 109 and Figure 109. Elevated levels of lead (39 mg/kg) and oil and grease (110 mg/kg and 280 mg/kg) were detected in the area of the Unlined Pit (Ref. 46).

112. UNIT NAME: Oil/Water Separator No. 2336

Unit Description: This unit is an underground tank of unknown capacity located adjacent to Fire Department Training Area No. 4 (SWMU No. 109) in the Southeastern Area of the Air Force Base. The unit may overlay the same area as the Unlined Pit (SWMU No. 111), which was used to collect runoff from the fire training area until 1985, when the Oil/Water Separator was installed. The unit recovers JP-4 fuel from the runoff which contains an aqueous fire-fighting foam residue. The recovered JP-4 fuel is conducted to Tank No. 2336 (SWMU No. 110). The effluent is discharged to a field. The unit is self-contained with a hinged cover (Ref. 6 and 47).

Date of Start-Up: 1985 (Ref. 47).

Date of Closure: The unit is currently active (Ref. 47).

Wastes Managed: The unit recovers JP-4 fuel from the fire training runoff. The fire-fighting foam is a fluorinated synthetic hydrocarbon (Ref 6 and 47).

Release Controls: The unit is self-contained with a hinged cover (Ref. 6 and 47).

Release History: No releases from this unit have been documented; however, the unit may overlay the same area of the Unlined Pit (SWMU No. 111) for which 1985 soil sampling analyses showed elevated levels of lead, oil and grease (Ref 46).

109. UNIT NAME

Fire Department Training Area No. 4

Soil/Groundwater:

The potential for release to soil is high due to the past disposal of hazardous wastes and the unlined nature of the unit. The potential for release to groundwater is lower. The caliche layers could possibly act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer.

Surface Water:

The potential for release to surface water is high due to the surface disposal of wastes.

Air:

The potential for release to air is low due to the fact that this unit has not been used in 13 years.

Subsurface Gas:

The potential for generation of subsurface gas is low due to the method of disposal.

Suggested  
Further Actions:

Construct a berm to reduce runoff from the unit.

110. UNIT NAME

Underground Waste Oil Tank No. 2336

## Soil/Groundwater:

The potential for release to soil is high due to the unit's being located underground. The potential for release to groundwater is lower. The caliche layers could possibly act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer.

## Surface Water:

The potential for release to surface water is low due to the location of the unit being underground; surface drainage does not flow in the direction of the nearest surface water body--the Playa Lake Stormwater Collection Point (SWMU No. 85).

## Air:

The potential for release to air is low due to the nature of the unit.

## Subsurface Gas:

The potential for generation of subsurface gas is high due to the nature of the unit.

Suggested  
Further Actions:

Determine the integrity of the unit.

111: UNIT NAME

## Unlined Pit

## Soil/Groundwater:

The potential for release to soil is high due to the unlined nature of the unit. The potential for release to groundwater is lower. The caliche layers could possibly act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer.

## Surface Water:

The potential for release to surface water is low due to the location of the unit.

## Air:

The potential for release to air is low due to the presence of a soil cover.

## Subsurface Gas:

The potential for generation of subsurface gas is high due to the nature of the wastes.

Suggested  
Further Actions:

Conduct soil sampling to determine if contamination exists.

112. UNIT NAME Oil/Water Separator No. 2336 (Central Area of Base)

Soil/Groundwater: The potential exists for release to soil depending upon the integrity of the unit. In addition, spills may occur during unit cleaning. The potential for release to groundwater is lower. The caliche layers could possibly act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer.

Surface Water: Potential for release is low. The site is not near any surface water bodies and is protected from heavy rain runoff by the hinged cover.

Air: Because the unit has a hinged cover, there is no potential for release to air during operation. However, during unit cleaning, the cover is lifted, resulting in a moderate potential for release to the ambient air.

Subsurface Gas: The unit is located below ground, and the integrity of the unit is unknown; thus, there is a potential for subsurface gas generation.

Suggested Further Actions: Consider assessing the integrity of the unit; the unit has been in place since 1960.

86. UNIT NAME: Engine Test Cell

Unit Description: This unit is an enclosed tank located near a runway in the Central Area of the base. The dimensions are approximately 50 feet by 10 feet by 20 feet tall. The cell rests on a concrete slab. Aircraft engines are cleaned with steam removing residual lubricating and synthetic oils and dirt (Ref. 47). This unit was identified as Site No. 11 in the IRP Phase I study due to the known disposal of hazardous material, the observed contamination in the adjacent Overflow Pit, and the site location, within 300 feet of potable water Well No. 9. (Ref. 6).

Date of Start-Up: This unit was built in 1965 (Ref. 6).

Date of Closure: The unit is active (Ref. 47).

Wastes Managed: Washdown water from aircraft engine cleaning containing lubricating and synthetic oils and dirt (Ref. 47).

Release Controls: This unit is self-contained. Wastewater is now channeled to an Oil/Water Separator No. 5114 (SWMU No. 90)(Ref. 47). Prior to that it was channeled to the Former Overflow Pit (SWMU No. 87) (Ref. 6).

Release History: During the VSI, moisture and black discoloration was observed on the concrete and gravel surrounding the unit (Ref. 47). Results from sampling are presented in Table 86 and Figure 86 following this page.

Table 85Results of Analysis of Soil Samples for  
Engine Test Cell Area

Sample #	Depth	O&G*	Pb*	Purgeable Organic Compounds** (EPA 8010/8020)
11A-1	1.0-2.0'	ND	1.5	ND
11A-2	5.0-7.0'	ND	4.0	ND
11B-1	2.0-4.0'	ND	4.8	ND
11B-2	5.5-7.0'	ND	2.0	ND
11B-3	46.5-47.5'	ND	2.0	ND
QA-1***	5.0-7.0'	ND	4.3	ND

\*all values in mg/kg

\*\*concentrations in ug/kg

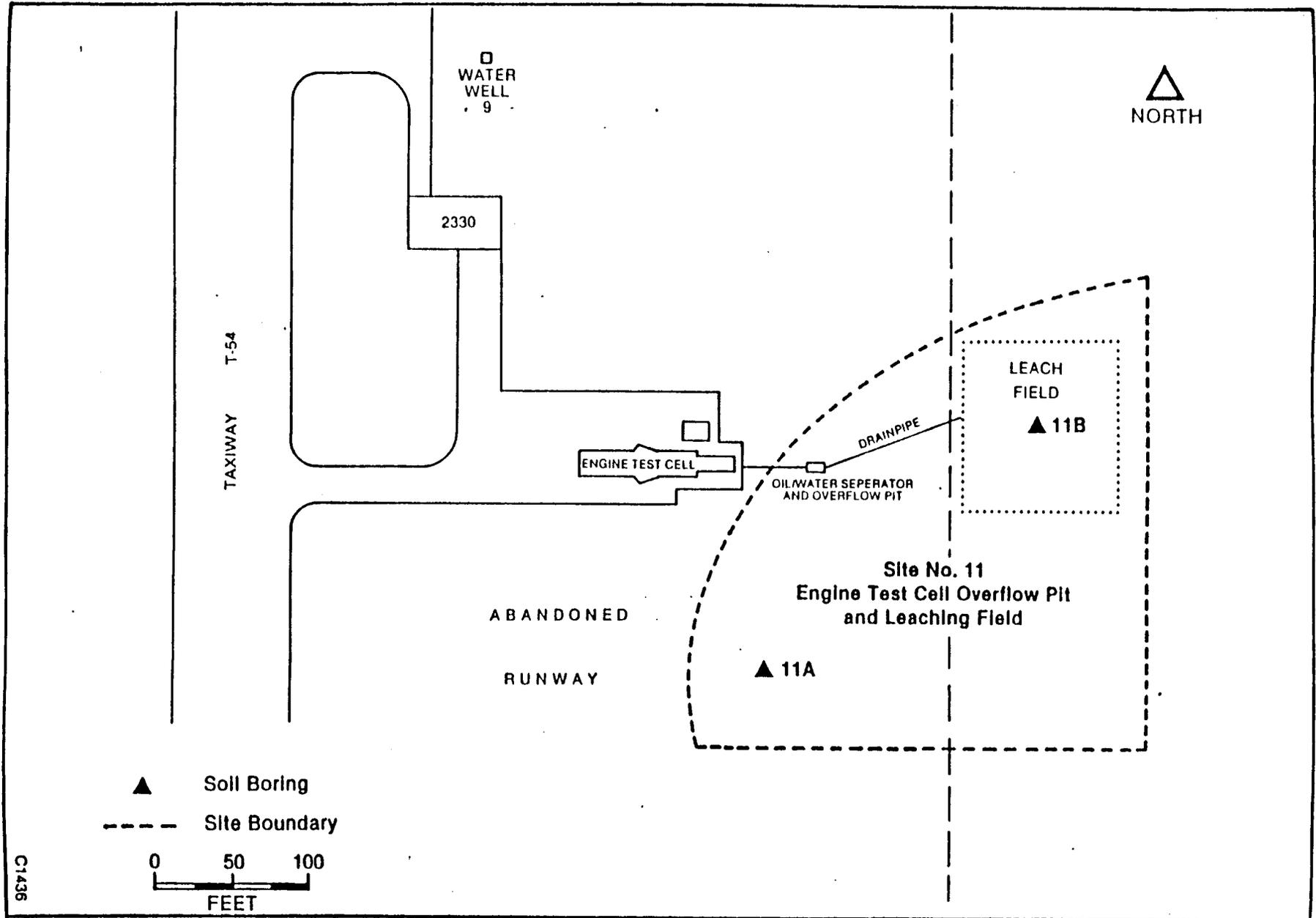
\*\*\*duplicate of 11A-2

ND = not detected, detection limits and analytical techniques are listed in  
Appendix A

Source: Reference 46

Figure 86

## Soil Boring Locations in Engine Test Cell Area



.87. . UNIT NAME:

Former Overflow Pit

## Unit Description:

This unit was an unlined surface impoundment, 6 to 8 feet in diameter and filled with 5 to 6 feet of liquid. The pit site is located in the Central Area of the Air Force Base. The pit was excavated to receive overflow from the Engine Test Cell washwaters (Ref. 6). This area is now covered with soil and overflow is directed to Oil/Water Separator No. 5114 (SWMU No. 90) which is nearby (Ref. 47).

Subsurface drainage from this unit is typically to the southeast towards low catchment areas (Ref. 6).

## Date of Start-Up:

This unit was excavated in 1982 (Ref. 6).

## Date of Closure:

Use of this unit ceased in 1985 (Ref. 46).

## Wastes Managed:

The pit held wash water containing, in part, a black liquid with a hydrocarbon odor (Ref. 6).

## Release Controls:

The unit was unlined when in use (Ref. 47).

## Release History:

During the 1985 inspection the soil appeared to wet and muddy from recent discharges from the Engine Test Cell (Ref. 46). In 1982, the open pit reportedly contained 5 to 6 feet of black liquid with a hydrocarbon odor being released to the air (Ref. 6).

88. UNIT NAME: Former Leaching Field

Unit Description: This unit was a leaching field that received washdown wastewaters from the Engine Test Cell (SWMU No. 86). The estimated area of the leach field is 10,000 square feet. In 1985, use of the leaching field was discontinued because of partial clogging with oils from the Oil/Water Separator (SWMU No. 90) (Ref. 47). An Evaporation Pond (SWMU No. 89) was installed in 1985 and may overlap the former Leaching Field that received water from the Oil/Water Separator (SWMU No. 190).

Date of Start-Up: This unit was built in 1965 (Ref. 6).

Date of Closure: Use of this unit ceased in 1985 (Ref. 46).

Wastes Managed: The leaching field received washdown wastewater from the Engine Test Cell and oils released from the Oil/Water Separator (Ref. 6).

Release Controls: This unit had no known release controls (Ref. 47).

Release History: During 1985, two deep soil borings were installed to evaluate the environmental impact of this site. From the five samples analyzed, no contaminants were detected. However, the information provided from only two boreholes is not considered adequate to evaluate the potential environmental impacts associated with this site (Ref. 46).

89. UNIT NAME:

Evaporation Pond

Unit Description:

This unit is a concrete, sloped sides impoundment used for evaporating Engine Test Cell washwater located in the Central Area, adjacent to the Engine Test Cell (SWMU No. 86). The unit's bottom area is 60 by 60 square feet and is lined with bentonite clay. The top of the impoundment is 90 x 90 square feet. The depth of the unit is 6 feet. The Evaporation Pond may overlies and overlap the former Leaching Field (SWMU No. 88). During the VSI, a black carbonaceous film was present near the POL discharge inlet.

Date of Start-Up:

This unit became active in 1985.

Date of Closure:

This unit is currently active.

Waste Managed:

Washwater containing carbonaceous black constituents.

Release Controls:

The unit is lined with concrete and bentonite.

Release History:

Not known.

90. UNIT NAME: Oil/Water Separator No. 5114

Unit Description: This unit is an underground 100-gallon tank located in the Central Area, adjacent to the Engine Test Cell (SWMU No. 86). The unit, of unknown construction, recovers JP-4 fuel from the effluent from the Engine Test Cell. The recovered JP-4 fuel is conducted to Tank No. 5114 (SWMU No. 91) and the effluent is discharged to the Evaporation Pond (SWMU No. 89). Prior to 1985, the effluent was discharged to the Leaching Field (SWMU No. 88). The unit is self-contained with a hinged cover (Ref. 6 and 47).

Date of Start-Up: 1965 (Ref. 6).

Date of Closure: The unit is currently active (Ref. 47).

Wastes Managed: The unit recovers JP-4 fuel from effluent from the Engine Test Cell (Ref. 6 and 47).

Release Controls: The unit is self-contained with a hinged cover (Ref. 6 and 47).

Release History: No releases from this unit have been documented (Ref. 6 and 47).

91. UNIT NAME: Recovered Fuel Tank No. 5114

Unit Description: This unit is an aboveground 5,000-gallon tank located in the Central Area, near the Engine Test Cell (SWMU No. 86). The unit is of unknown construction. The unit collects recovered JP-4 fuel from Oil/Water Separator No. 5114 (SWMU No. 90) (Ref. 6 and 47).

Date of Start-Up: 1967 (Ref. 6 and 47).

Date of Closure: The unit is currently active (Ref. 6 and 47).

Wastes Managed: The unit collects recovered JP-4 fuel from Oil/Water Separator No. 5114 (SWMU No. 90) (Ref. 6 and 47).

Release Controls: The unit has no known release controls (Ref. 6 and 47).

Release History: No releases from this unit have been reported (Ref. 6 and 47).

86., UNIT NAME

Engine Test Cell (Central Area of Base)

Soil/Groundwater:

The potential for release to soil is high due to the fact that releases from this unit were observed. The potential for release to groundwater is lower. The caliche layers could possibly act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer.

Surface Water:

The potential for release to surface water is low due to the location of the unit.

Air:

The potential for release to air is low due to the fact that the unit is self-contained.

Subsurface Gas:

The potential for generation of subsurface gas is low due to the location aboveground.

Suggested  
Further Actions:

Conduct soil sampling to determine if contaminants have been released from the unit.

87. UNIT NAME

Former Overflow Pit (Central Area of Base)

## Soil/Groundwater:

The potential for release to soil is high due to the unlined nature of the unit. The potential for release to groundwater is lower. The caliche layers could possibly act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer.

## Surface Water:

The potential for release to surface water is low due to the fact that the unit is no longer in use.

## Air:

The potential for release to air is low due to the presence of a soil cover.

## Subsurface Gas:

The potential for generation of subsurface gas is low due to the nature of wastes disposed.

Suggested  
Further Actions:

Conduct additional soil sampling to determine if contaminants exist in the soil.

88. UNIT NAME

Former Leaching Filed - Engine Test Cell (Central Area of Base)

## Soil/Groundwater:

The potential for release to soil is high. The potential for release to groundwater is lower. The caliche layers could possibly act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer.

## Surface Water:

The potential for release to surface water is low due to the fact that the unit is no longer in use.

## Air:

The potential for release to air is low due to the presence of a soil cover.

## Subsurface Gas:

The potential for generation of subsurface gas is low due to past disposal of hydrocarbon wastes.

## Suggested

## Further Actions:

Conduct additional soil sampling to determine if contaminants exist in the soil.

89. UNIT NAME

Evaporation Pond--Engine Test Cell  
(Central Area of Base)

## Soil/Groundwater:

The potential for release to soil is high. The potential for release to groundwater is moderate. The caliche layers act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer. However, the caliche layer may not be continuous. Furthermore, the presence of a hydraulic head increases the potential for downward migration of hazardous constituents.

## Surface Water:

The potential for release to surface water is low due to the fact that the unit is not located near a surface water body.

## Air:

The potential for release to air is low due to the nature of the wastes disposed.

## Subsurface Gas:

The potential for generation of subsurface gas is low due to the location of the unit aboveground.

Suggested  
Further Actions:

No further action suggested at this time. Conduct soil sampling to establish if contaminants exist in the soil.

90. UNIT NAME Oil/Water Separator No. 5114 (Central Area of Base)

Soil/Groundwater: The potential exists for release to soil depending upon the integrity of the unit. In addition, spills may occur during unit cleaning. The potential for release to groundwater is lower. The caliche layers could possibly act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer.

Surface Water: The potential for release is low. The site is not near any surface water bodies and is protected from heavy rain runoff by the hinged cover.

Air: Because the unit has a hinged cover, there is no potential for release to air during operation. However, during unit cleaning, the cover is lifted, resulting in a moderate potential for release to the ambient air.

Subsurface Gas: The unit is located below ground, and the integrity of the unit is unknown; thus, there is a potential for subsurface gas generation.

Suggested Further Actions: Consider assessing the integrity of the unit; the unit has been in place since 1965.

91. UNIT NAME Recovered Fuel Tank No. 5114 (Central Area of Base)

Soil/Groundwater: The potential for release to soil and groundwater is dependent upon the integrity of the unit. Based on inspection of the aboveground unit, the potential for release is low.

Surface Water: The potential for release to surface water is low due to integrity of the unit, as well as its location.

Air: For aboveground tanks, the potential for release to air is dependent upon the integrity of the tanks.

Subsurface Gas: For aboveground tanks, there is no potential for subsurface gas generation.

Suggested Further Actions: Consider determining the integrity of unit on a regular basis, and providing internal and external protection for all the unit.

85.

UNIT NAME:

Storm Water Collection Point

## Unit Description:

This unit is a naturally occurring playa used as an unlined surface impoundment to receive stormwater runoff from the flightline as well as small spills of fuel. The 15-foot deep playa, which occupies about nine acres in area, is in the Southwest Area of the Air Force Base near crossing jet runways, and 800 feet from a potable water well. The basin of the unit is composed of silt and clay with organic debris, the thickness of the clay and organic debris is unknown. This site was identified as Site No. 12 in the IRP Phase I study because of the suspected disposal of small amounts of hazardous materials and the existence of a drinking well (No. 6) within 800 feet (Ref. 6).

## Date of Start-Up:

This unit has been active since 1943 (Ref. 6).

## Date of Closure:

The unit is active (Ref. 47).

## Wastes Managed:

The playa received storm water runoff from the flight line areas. Large pieces of broken concrete, from apron and runway demolition, have also been disposed in the playa. It is likely that fuels from minor spills, oils, and similar POL materials such as PD-680, a petroleum distillate cleaning solvent, contained in the storm water have reached the site. In addition, washwater from the Aircraft Washrack Oil/Water Separator (SWMU No. 38) is discharged through the storm sewers to this unit (Ref 6). It possible that other Oil Water Separators discharged to this unit also but no information is available at this date. In 1981, an analysis of a sample of the washrack discharge revealed the effluent to be primarily water with a very thin layer of a hydrocarbon, similar to PD-680 solvent with lead and total chromium present in low concentrations (80 ppb and 212 ppb, respectively) (Ref. 6).

## Release Controls:

The unit is unlined. No release controls were observed during the VSI (Ref. 47).

85. (Cont'd.)

## Storm Water Collection Point

## Release History:

During 1985, three 5-foot deep, hand-augered boreholes were made and samples were taken at depths of one foot and five feet. Results from the sampling are presented in Table 85 and Figure 85 following this page. The samples contained no purgeable halocarbons or volatile hydrocarbons. Generally, no elevated levels of oil and grease or concentrations of metals were detected. However, increasing levels of lead are concentrated towards the center of this unit (Ref. 46).

Table 85

Results of Analysis of Soil Samples  
for Stormwater Collection Point

Sample Number	Depth	Parameter												Purgeable Organics** Zn (EPA 8010/8020)	
		Ag	As	Ba	Cd	Cr	Cu	Fe	Hg	Ni	O/C	Pb	Se		
(concentrations in mg/kg)															
ST-1	3.0-4.0'	0.40	1.6	48	0.28	5.5	3.5	5500	0.17	3.3	ND	5.3	ND	9.9	ND
ST-2	3.0-4.0'	ND	1.8	70	1.2	18.0	7.7	6900	0.20	4.4	ND	33.0	ND	46.0	ND
ST-3	3.0-4.0'	ND	1.5	110	2.3	28.0	12.0	7700	0.21	6.1	40	74.0	ND	57.0	ND
ST-1a	3.0-4.0'	ND	3.1	48	ND	3.4	4.2	3900	0.17	3.2	ND	5.3	1.3	9.0	ND

\*duplicate analysis

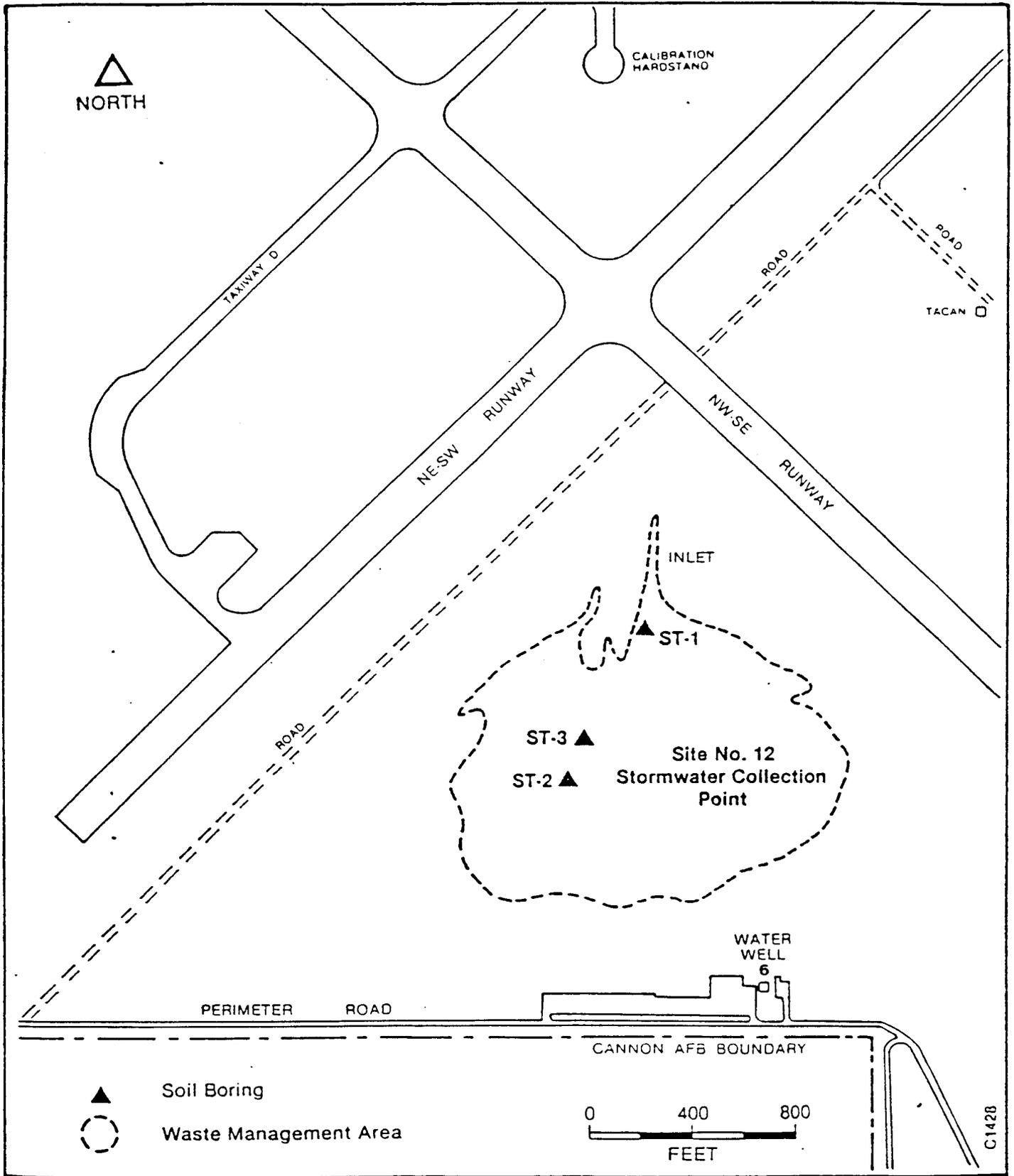
\*\*concentrations in ug/kg

ND = not detected, detection limits and analytical techniques are listed in Appendix A

Source: Reference 46

Figure 85

Soil Boring Locations at Stormwater Collection Point



85., UNIT NAME

Storm Water Collection Plant (Southwest Area of Base)

Soil/Groundwater:

The potential for release to soil is high due to the unlined nature of the unit. The potential for release to groundwater is moderate. The caliche layers act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer. However, the caliche layer may not be continuous. Furthermore, the presence of a hydraulic head increases the potential for downward migration of hazardous constituents.

Surface Water:

The potential for release to surface water is low due to the fact that this unit does not discharge to any other surface water body.

Air:

The potential for release to air is high due to the possible volatilization of organic contaminants.

Subsurface Gas:

The potential for generation of subsurface gas is low due to the location of the unit.

Suggested  
Further Actions:

Elevated lead levels were found in soil borings from this unit in 1985; conduct surface water sampling to determine the source of contamination.

9.5., UNIT NAME:

Northeast Storm Water Drainage Area

Unit Description:

This unit is an open field which receives water from Cantonment Area oil/water separators and runoff water from the runways and storm water drains located in the Eastern Area of the Air Force Base. This area has recently been identified by the IRP for further evaluation in Phase IV due to known discharge from Oil/Water Separators Nos. 194, 195, and 196 (SWMU Nos. 38, 39, and 46). The area identified by facility representatives is a ditch, 40 feet wide, extending from the end of the northeast runway beneath the base perimeter road to a field leading to the base boundary. During the VSI, the area appeared heavily vegetated and water ponded in a shallow depression (Ref. 47).

Date of Start-Up:

Runoff from the runways has been received by this drainage way since 1953 (Ref. 47). The oil/water separators presumably began discharging to this area when they were installed, in 1969 (Ref. 6).

Date of Closure:

This unit is currently active (Ref. 47).

Wastes Managed:

Wash from Oil/Water Separators Nos. 194, 195 and 196 (Aircraft Maintenance Hangers and Corrosion Control/Fuel Systems Shop (SWMU Nos. 38, 39 and 46)). This includes alkaline based aircraft cleaning compounds containing 5% by weight ethylene glycol n-mono butyl ether. Runoff water from the runways and the northeast storm water drains is also discharged to this unit.

Release Controls:

No release controls were observed during the VSI (Ref. 47).

Release History:

No releases from this unit have been reported (Ref. 47).

95. UNIT NAME

Northeast Storm Water Drainage Area

Soil/Groundwater:

Release potential to soil is high due to the unlined nature of the unit. The potential for release to groundwater is lower. The caliche layers could possibly act as an aquitard and inhibit downward migration of hazardous constituents to the aquifer.

Surface Water:

The potential for release to surface water is low due to the fact that the unit does not discharge into any other surface water body.

Air:

The potential for release to air is low due to the nature of the unit.

Subsurface Gas:

The potential for generation of subsurface gas is low due to the nature of the unit.

Suggested Further  
Actions:

Conduct soil, surface water and sediment sampling to determine presence of hazardous constituents.