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John P. Cahill
Commissioner

JAN 11 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

RE: Draft Final Record of Decision for Landfill # 1;
Griffiss Air Force Base (ID No. 633006)

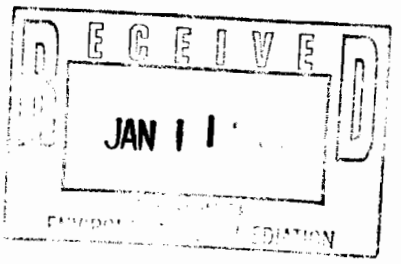
The New York State Department of Environmental Conservation (NYSDEC), in conjunction with the New York State Department of Health (NYSDOH), has reviewed the referenced Record of Decision (ROD) and finds it to be acceptable.

The final ROD should include a statement indicating the NYSDEC's acceptance, and a signed copy should be sent to the USEPA Region II Administrator for signature.

If you have any questions or comments on this matter, please contact Mr. Sal Ervolina, of my staff, at (518) 457-4349.

Sincerely,

Michael J. O'Toole, Jr.
Director
Division of Environmental Remediation



c: R. Caspe, USEPA
R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
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S. Dimeo
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bc: M. O'Toole (2)
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Sal please prepare Ltr for Tom's sig. Ted Tom RPS

Ltr RPS
OK, I concur with ROD
Pls have concurrence memo to Feds prepared
1/4/00

John P. Cahill
Commissioner

MEMORANDUM

To: Michael J. O'Toole, Director, Division of Environmental Remediation
From: Tom Quinn, Assistant Director, Division of Environmental Remediation
Subject: Record of Decision for Landfill #1; Griffiss AFB (ID No. 633006)

JAN - 4 2000

Attached is a copy of the draft final Record of Decision (ROD) for the referenced site, which is located on the former Griffiss Air Force Base, Oneida County, New York.

The following is a brief summary of the site and ROD:

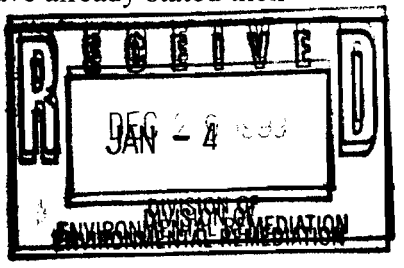
The **Landfill # 1** area of concern (AOC) is a 20-acre landfill which was active from 1960 to 1973. The site was filled using the trenching method, and the wastes disposed over the years included ash from their coal-fired steam plant, industrial wastes (drummed and un-drummed waste oils and solvents), C&D materials and general refuse. The site is currently covered with native soils and is well vegetated and partially reforested, though exposed wastes are periodically noted. There is a groundwater plume coming from the site which is primarily composed of petroleum constituents (e.g., trimethylbenzene @ 100 ppb, xylene @ 110 ppb, etc), as well as a few chlorinated compounds at lower levels (e.g., chlorobenzene @ 11 ppb) and several metals well-above standards. Of greater concern is the site's leachate discharges to the adjacent Six Mile Creek, as well as the site's effect on a nearby tributary to that creek. The leachate, which manifests itself in the form of a natural spring, flows to the creek at a rate that has been measured to be as high as 7 gpm. This spring/leachate seep contains PCB and several pesticides at levels which indicate it to be a significant source of contaminant loading to the stream (e.g., PCB @ 1 ppb in the discharge, Silvex @ 5 ppb, etc.). Surface water in the adjacent tributary to Six Mile Creek also contains PCBs at levels which are known to bioaccumulate in fish (e.g., a combined value of different congeners at well over 1 ppb), though no direct source of this contamination has been found. Though it is not conclusive that these problems are the sole source of contaminated fish gathered from downstream locations (e.g., fish carrying a 13 ppm body burden of PCBs), it is clear that they are at least contributing.

Record of Decision: The ROD for this site was formulated using the "presumptive remedy" approach; i.e., the investigation looked for hot-spots within the landfill mass (with only limited success; e.g., a handful of drums were gathered). Following this step, it was decided that the best course of action was to cap the landfill in accordance with current Part 360 landfill closure regulations, as well as to install a cutoff trench on the southwest portion of the site to intercept both leachate and shallow groundwater before it reaches the creek. This water is to be treated with carbon and discharged back into the stream. The Air Force has also committed to post-closure monitoring of the groundwater and the surface water/stream environment and implementing institutional controls to preclude consumption of groundwater, as well as to ensure the caps integrity.

Issues: The USEPA has tentatively approved this ROD through the Director's office pending minor changes to the responsiveness summary and the inclusion of cost information. Staff has seen these changes and agree that they enhance the response and ROD in general, though they are not substantive and should not delay our approval.

Recommendation: Both the NYSDOH and the Division of Fish and Wildlife have already stated their concurrence. I recommend concurring with the ROD.

cc: S. Ervolina (w/attach.)
M. Chen (w/attach)
W. Daigle (w/attach)



Record of Decision for the Landfill 1 Area of Concern at the Former Griffiss Air Force Base Rome, New York

October 1999

Prepared for:

U.S. ARMY ENGINEER DISTRICT, KANSAS CITY
601 East 12th Street
Kansas City, MO 64106-2896

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List of Acronyms

AFB	Air Force Base
AFBCA	Air Force Base Conversion Agency
AOC	Area of Concern
ARAR	Applicable or Relevant and Appropriate Requirement
ATSDR	Agency for Toxic Substances and Disease Registry
BGS	below ground surface
BOD	biological oxygen demand
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DFAS	Defense Finance and Accounting Services
DoD	Department of Defense
EPA	United State Environmental Protection Agency
FFA	Federal Facility Agreement
GPR	ground-penetrating radar
HI	Hazard Index
HQ	Hazard Quotient
IRP	Installation Restoration Program
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEADS	Northeast Air Defense Sector
NPL	National Priorities List
NYANG	New York Air National Guard
NYCRR	New York Code of Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
PCB	polychlorinated biphenyl
RAB	Restoration Advisory Board
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision
SAC	Strategic Air Command
SAR	Small Arms Range
SPDES	New York State Pollution Discharge Elimination System
SVOC	semivolatile organic compound

List of Acronyms (Cont.)

TCLP	Toxicity Characteristic Leaching Procedure
TOC	total organic carbon
VOC	volatile organic compound

1 Declaration

1.1 Site Name and Location

The Landfill 1 Area of Concern (AOC) is located at the former Griffiss Air Force Base (AFB) in Rome, Oneida County, New York.

1.2 Statement of Basis and Purpose

This Record of Decision (ROD) presents the presumptive remedy alternative as the selected remedial action for Landfill 1 AOC at the former Griffiss AFB. This alternative has been chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The Air Force Base Conversion Agency (AFBCA), The United States Environmental Protection Agency (EPA), and the New York State Department of Environmental Conservation (NYSDEC) have adopted this ROD through joint agreement. Information supporting this decision is contained in the administrative record file for this site.

1.3 Assessment of the Site

Actual or threatened release of hazardous substances from the AOC, if not addressed by implementing the response action selected in this ROD, may present a potential threat to public health, welfare, or the environment.

1.4 Description of Selected Remedy

The selected remedy for the Landfill 1 AOC is the Presumptive Remedy, which was developed in accordance with EPA Presumptive Remedy Guidance for Military Landfills, dated April 29, 1996, for the expeditious cleanup of sites that are similar in character to a large number of CERCLA sites that have already been remediated. Presumptive remedies are preferred technologies for common categories of sites based on historical patterns of remedy selection and EPA's scientific and engineering evaluations of performance data on technology implementation. The remedy addresses the threats to human health and the environment that are posed by exposure to soil, sediment, surface water, and groundwater at the site. The major components of the selected remedy include:

- Implementation of institutional controls in the form of deed restrictions of the main landfill boundary and the contaminated groundwater plume area to prevent exposure to the contaminated landfill mass and groundwater;
- Collection of groundwater/leachate from a trench located at the landfill toe;
- Treatment of collected groundwater/leachate by carbon adsorption and discharge of treated water into Six Mile Creek. All water to be discharged to the creek will be in compliance with the New York State Pollution Discharge Elimination System (SPDES) requirements;
- Installation of an impermeable cover in accordance with 6 NYCRR Part 360 landfill closure regulations, dated November 26, 1996;
- Maintenance of the impermeable cover and long-term monitoring of the groundwater, surface water, and sediment in accordance with 6 NYCRR Part 360 landfill post-closure regulations, dated November 26, 1996;
- Monitoring the groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site to evaluate the effectiveness of the presumptive remedy. Any rare plants, significant communities or wetlands disturbed during the remedial action will be restored; and

- Evaluation of site conditions at least once every five years to ensure that the remedy is protective of human health and the environment.

1.5 Declaration Statement

The AFBCA, EPA, and NYSDEC have determined that the selected remedy meets the requirements for remedial action set forth in CERCLA, Section 121, because it:

- Protects human health and the environment;
- Provides a level or standard of control of the contaminants that attains, at a minimum, the legally applicable or relevant and appropriate requirements (ARARs) under federal and state laws;
- Is cost-effective;
- Utilizes permanent solutions, alternative treatment technologies, and resource recovery technologies to the maximum extent practicable;
- Satisfies the statutory preference for remedies that employ treatment(s) to reduce the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants at a site to the extent that it requires treatment of collected groundwater/leachate; and
- Includes a review of the remedial action, which is to be conducted five years after commencement of the remedial action, to ensure that the remedy continues to provide adequate protection to human health and the environment.

1.6 Signature of Adoption of the Remedy

On the basis of the remedial investigations (RIs) performed at the Landfill 1 AOC and the baseline risk assessment, the presumptive remedy is the selected remedy for the Landfill 1 AOC. The selected remedy meets the requirements for remedial action set forth in CERCLA, Section 121.

Albert F. Lowas, Jr.
Director
Air Force Base Conversion Agency

Date

Jeanne M. Fox
Regional Administrator
United States Environmental Protection Agency, Region 2

Date

2 Decision Summary

2.1 Site Name, Location, and Description

Regional Site Description

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a groundwater recharge zone.

Landfill 1 Area of Concern

Landfill 1 is an approximately 19.6-acre area located in the north-central portion of the former Griffiss AFB (see Figures 1 and 2). The bottom and sides of the landfill are unlined but three surface portions were capped in the 1970s and regraded and recapped in 1984 with natural soils and clay. The thickness of the existing landfill soil cover ranges from 1 to 4 feet. The landfill is bounded by the installation boundary on the north side, regulated wetlands and a tributary of Six Mile Creek on the east side, Six Mile Creek and regulated wetlands on the west side, and woodlands on the south side. The central

portion of Landfill 1 consists of planted trees; the northeastern area of the landfill is vegetated with grasses; and the remaining areas are planted with red pine, white spruce, scotch pine, American cedar, larch, black walnut, and evergreens. Two areas of the Landfill 1 AOC are considered significant natural communities by the New York State Natural Heritage Program. These areas consist of: (1) a white-cedar-dominated rich sloping fen wetland adjacent to the wetlands on the east side; and (2) an undisturbed hemlock hardwood swamp located in a mature forest adjacent to the northeast corner of the site.

The Landfill 1 AOC is located in an area of variable topography, with 45 feet of relief occurring primarily in the western portion of the site, adjacent to Six Mile Creek. Most of the landfill drains southeast toward a tributary of Six Mile Creek; the western portion drains to the west toward the Six Mile Creek flood plain and adjacent wetland area.

Landfill 1 rests at the toe of a sloping plane of low permeability bedrock. Information obtained from groundwater monitoring wells at the site indicates that the water table slopes 2% to the southwest toward Six Mile Creek. Leachate seeps emerging from several points along the base of the slope leading to the wetlands adjacent to Six Mile Creek have been observed at Landfill 1 since 1982.

The uppermost soils of the native geology, from ground surface to 2.5 feet below ground surface (BGS), consist of clayey sand to silty fine sand. Deeper soils consist predominantly of fine to medium, variably silty and gravelly sand.

2.2 Site History and Investigation Activities

The Former Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that

year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the Base Realignment and Closure Act in 1993 resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998 when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Landfill 1 was operated primarily as a trench-and-cover landfill from 1960 to 1973. Early cells were constructed in an east-west orientation and were from 40 to 50 feet wide and 300 to 500 feet long. Wastes were disposed in the landfill to depths of 15 to 18 feet. According to historical records, wastes received by the landfill included fire debris in the western portion, steam plant ash in the eastern portion, unlabeled 55-gallon drums, partially filled cans of an unknown crystalline chemical, and miscellaneous debris containing metallic and sheetrock components.

Numerous studies and investigations under the U.S. Department of Defense (DoD) Installation Restoration Program (IRP) have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These

investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, Agency for Toxic Substances and Disease Registry (ATSDR); base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the National Priorities List (NPL) on July 15, 1987. On August 21, 1990, USAF, EPA, and NYSDEC entered into a Federal Facility Agreement (FFA) under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of Areas of Concern on base; a scope of work for an RI; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a baseline risk assessment; a community relations plan; an RI report; a work plan and the report for a supplemental investigation; and a Landfill Cover Investigation Report. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996, and the final SI report was delivered on July 24, 1998. The Final Landfill Cover Investigation Report was delivered on December 8, 1997.

This ROD for remedial action is based on an evaluation of potential threats to human health and the environment due to contamination in the soil, sediment, surface water, and groundwater media at the Landfill 1 AOC and adjacent areas. During the RI, a site-specific baseline risk assessment (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. In the RI report, the results of the risk assessment were compared to available standards and

guidance values using federal and state environmental and public health laws that were identified as potentially applicable or relevant and appropriate requirements (ARARs) at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), sediments, or air. Therefore, other non-promulgated federal and state advisories and guidance values, referred to as To-Be-Considereds (TBCs), and background levels of the contaminants in the absence of TBCs, were considered. This comparison was used in the selection of the preferred remedial action.

Initial Site Investigations

Initial site investigations were performed in 1981 and 1982. Visually identified wastes at the site included unlabeled 55-gallon drums, decomposed cardboard drums, and several open burning areas with partially filled cans of an unknown crystalline chemical (the cans and some of the drums were later removed at an unknown date). Rust-tinted seeps were observed at the base of the slope heading toward wetlands adjacent to Six Mile Creek, and iron, zinc, and toluene were identified in the 1981 and 1982 samples.

As part of this preliminary investigation, nine groundwater monitoring wells were installed at Landfill 1 and were sampled in January and February of 1982. A tenth well was installed in January 1990. In May 1991, samples collected from five of the wells indicated the presence of four organic compounds that exceeded the current state standards for groundwater. In 1992 and 1993, the Air Force conducted a baseline investigation of the chemical contamination of site groundwater. As part of the investigation, all ten wells at Landfill 1 were sampled on a quarterly basis for one year. NYSDEC groundwater standards for several volatile organic compounds (VOCs), manganese, zinc, lead, cadmium, and glycols were exceeded.

Remedial Investigation

In 1994, an RI was performed. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any remedial action was necessary to prevent potential threats

to human health and the environment. The RI included a geophysical survey consisting of a magnetometry survey and ground-penetrating radar (GPR) survey; a passive soil gas survey; sampling and analysis of surface soil, surface water, sediment, leachate and fish tissue analysis (collected during the Six Mile Creek Remedial Investigation); the installation of four additional groundwater monitoring wells; and the collection and analysis of groundwater samples from up to 13 monitoring wells (two wells were not sampled due to high turbidity and potential grout contamination, and another well was resampled and analyzed for specific chemicals).

Geophysical Surveys. The geophysical survey results indicated several anomalies representing eight disposal trenches and discrete disposal locations. Of these anomalies, GPR profiles indicated that two strong subsurface reflections were buried metallic objects.

Passive Soil Gas Survey. The passive soil gas survey indicated the presence of chlorinated solvents and petroleum fuel constituents.

Fish Analyses. Several species of fish were collected and analyzed for hazardous constituents as part of the Six Mile Creek AOC. Pesticides/Polychlorinated biphenyls (PCBs) were among the chemicals of potential concern detected in the composite whole-body fish tissue samples taken from the brown trout, creek chub, and white sucker. The detected concentrations of pesticides/PCBs ranged from 0.165 mg/kg (for the creek chub taken upstream of the site) to 13.5 mg/kg (creek chub taken approximately 4000 feet downstream of the site). The presence of pesticides/PCBs found in the whole-body fish tissue samples (which were similar to the contaminants found in the leachate samples from Landfill 1) was considered in the selection of the preferred remedial action.

Surface Soil Investigation. Seven surface soil samples collected during the RI were analyzed for chemicals potentially present in Landfill 1. One VOC, 13 semivolatile organic compounds (SVOCs), seven pesticides, and 21 metals were detected. The

concentrations of three SVOCs and five metals exceeded the most stringent criterion (see Table 1).

Groundwater Investigation. Analysis of groundwater samples indicated the presence of 23 VOCs, nine SVOCs, 11 pesticides, and 23 metals. The concentrations of eight VOCs, one pesticide, and 12 metals exceeded the most stringent criterion (see Table 2).

Leachate Investigation. Groundwater has also been observed seeping as leachate from the southwestern end of the landfill. The leachate samples collected during the RI contained 18 VOCs, 10 SVOCs, 24 pesticides, one PCB, and 14 metals. The compounds that exceeded groundwater effluent standards (6 NYCRR 703.6) and Class GA groundwater standards (6 New York Code of Rules and Regulations [NYCRR] 703.5) are identified in Table 3.

Surface Water Investigation. Analysis of surface water samples indicated the presence of two VOCs, 13 SVOCs, 11 pesticides/PCBs, and nine metals. The concentrations of six SVOCs, two pesticides, five PCBs, and three metals exceeded the most stringent criterion (see Table 4).

Sediment Investigation. Analysis of the sediment samples collected for the RI indicated the presence of 8 VOCs, 20 SVOCs, 21 pesticides/PCBs, and 23 metals. The concentrations of two VOCs, 13 SVOCs, 14 pesticides/PCBs, and seven metals exceeded the most stringent criterion (see Table 5).

Supplemental Investigations

An RI supplemental investigation was performed in 1997 for Landfill 1 to investigate two significant subsurface geophysical anomalies detected during the RI and to analyze the surrounding soils and contents of a partially buried drum located in Landfill 1 just north of the Small Arms Range (SAR). No drums were found in the test pits, and scrap steel appeared to be the cause of the significant geophysical anomalies.

Because no drums were found, no samples were collected at these pits. The partially buried drum mentioned above was labeled "Lube Oil, Sinclair REF-1" and contained a black, very viscous, grease-like material. The drum contents were sampled for toxicity characteristic leaching procedure (TCLP) VOCs and SVOCs, PCBs, and Resource Conservation and Recovery Act (RCRA) characteristics to determine methods of disposal. The partially buried drum and surrounding stained soils were excavated and disposed of at a permitted facility in January 1998. Verification soil sampling for VOCs, SVOCs, pesticides/PCBs, and metals following the drum and stained soil removal indicated no residual contamination from the drum.

A Landfill Cover Investigation performed in 1997 included the following tasks: historical records search, field survey, aerial photographic survey, auger investigation, permeability sample collection, and a hydrologic evaluation of landfill performance model analysis. The investigation further defined the areal extent of the landfill and the landfill boundary and revealed that the thickness of the existing landfill soil cover ranges from one to four feet. In addition, several exposed empty drums were observed that were later excavated and removed. Visual inspection and verification sampling using a photoionization detector following excavation of soil surrounding the drums indicated no residual contamination.

2.3 Highlights of Community Participation

The final proposed plan and a fact sheet for the Landfill 1 AOC indicating Presumptive Remedy as the selected remedial action were released to the public on **July 16, 1999**. The document was made available to the public in both the administrative record file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository maintained at the Jervis Public Library. The notice announcing the availability of this document was published in the *Rome Sentinel* on **July 19, 1999.** A public comment period lasting from July 20, 1999, to August 19, 1999, was set up to encourage public participation in the remedial action selection process. In addition, a public meeting was held on August 10, 1999. At this meeting, representatives from AFBCA, EPA, and NYSDEC answered questions about issues at the AOC and the Presumptive Remedy proposal under consideration. A response to the comments

received during this period is included in the Responsiveness Summary, which is part of this Record of Decision (see Section 3).

2.4 Scope and Role of Site Response Action

The scope of the Presumptive Remedy Alternative for the Landfill 1 AOC addresses the concerns for human health and the environment. Three portions of the landfill (approximately 6 acres) were originally capped in the 1970s; in 1984, the same portions were regraded with locally available soils and clay. No other response actions have been taken at this site. The Presumptive Remedy will bring the landfill cap into compliance with NYSDEC's standards of November 1996 and will address the contaminated groundwater/leachate at the site.

2.5 Summary of Site Risks

Site risks were analyzed based on the extent of contamination at the Landfill 1 AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils, sediments, surface water, and groundwater at the site. The results of this assessment were considered in the cleanup goal selection process.

Human Health Risk Assessment

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Landfill 1 AOC could pose health risks to individuals under current and proposed future land uses if no remediation occurs. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario:

- Hazard identification-identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration;

- Exposure Assessment-estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these

exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed;

- Toxicity Assessment-determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and

- Risk Characterization-summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and non-cancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soil, sediments, surface water, and groundwater at the site were considered chemicals of potential concern with the exception of inorganics detected at concentrations less than twice the mean background concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5 % of the total samples (unless they were known human carcinogens). Petroleum hydrocarbons as a class were not selected as chemicals of concern in the risk assessment, but the individual toxic constituents (e.g., benzene, toluene, and ethylbenzene) were evaluated. The presence of petroleum hydrocarbons as a class of contaminants was considered in the selection of the preferred remedial action.

The current and anticipated future land use designations for the Landfill 1 AOC are open space and wetlands. The human health risk assessment evaluated exposure to potential residential, agricultural, recreational, and occupational (landscape worker and future industrial worker) populations that may be exposed to chemicals detected in the site media. The various exposure scenarios for each population are described in Table 6.

Intake assumptions, which are based on EPA guidance, are more fully described in the RI.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Landfill 1 AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values.

For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds 1. Once either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as the point of departure for determining remediation goals for alternatives.

Because carcinogenic risks are based on total lifetime exposure, the calculated risk to the adult residential, agricultural, and recreational receptor (30-year exposure assumption versus a 6-year exposure assumption for a child) was used; therefore, only the carcinogenic risks to the adults were presented in the RI report. Additional specific exposure assumptions are described in the RI report.

The total carcinogenic risk to an adult resident and an adult agricultural receptor was calculated as 3 in 10,000 (3×10^{-4}), exceeding EPA's target lifetime excess cancer risk range as a result of the risk posed by ingestion of groundwater.

The total carcinogenic risk for an adult recreational receptor was calculated as 9 in 1,000,000 (9×10^{-6}), which is within the EPA's target risk range.

The total carcinogenic risk for landscape workers (25-year exposure assumption) was calculated as 9 in 10,000,000 (9×10^{-7}), which is below the EPA's target range. The total carcinogenic risk for an industrial worker (25-year exposure assumption) exposed to groundwater was 6 in 100,000 (6×10^{-5}), which is within the EPA's target risk range.

For noncarcinogenic risks, the child is the receptor generally assumed to have the greatest estimated risk; therefore, HIs were calculated for the adult, adolescent, youth, and child. The total HIs for the future residential adult, adolescent, youth, and child were calculated as 8, 9, 10, and 20, respectively, all exceeding the threshold level of 1. Ingestion of groundwater contaminated with manganese, cadmium, and arsenic contributed the majority of the risk. The HIs for all other exposure pathways for receptors of all ages were below the threshold level of 1.

The total HIs for adult, adolescent, youth, and child agricultural receptors were calculated as 8, 9,10, and 20, respectively, due to the ingestion of groundwater contaminated with manganese, cadmium, and arsenic. The HIs for all other exposure pathways for receptors of all ages were below the threshold level of 1.

The total HIs for the current and future recreational adult, adolescent, youth, and child were calculated as 0.06, 0.06, 0.1, and 0.4, respectively, all less than the threshold level of 1, indicating that adverse noncarcinogenic health effects are not expected to occur.

The total HI for a landscape worker was 0.02, which is below the threshold level of 1. Therefore, potential adverse noncarcinogenic health effects are not expected to occur. The total HI for an industrial worker exposed to groundwater was 2, which exceeds the threshold level. Ingestion of groundwater contaminated with manganese was the greatest contributor to the risk.

The results of the human health baseline risk assessment indicate that chemicals detected in air, surface soil, groundwater, surface water, and sediments likely do not

present an unacceptable risk to potentially exposed populations as long as groundwater is not used for drinking water. The quantitative evaluation of risk is subject to several conservative assumptions and should not be considered an absolute measure of risk.

Uncertainties exist in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and health protective assumptions throughout the entire risk assessment process results in an assessment that is protective of human health and the environment. Examples of uncertainties associated with the risk assessment for the Landfill 1 AOC include: (1) Chemical samples for the groundwater and leachate were collected from the suspected source of contamination rather than through random sampling, which may result in a potential overestimate of risk for those pathways; (2) The noncarcinogenic risks associated with dermal contact with soil and sediment were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (3) The models used in the RI are likely to overestimate exposure point concentrations in air, which would cause an overestimation of risk for the inhalation pathway; (4) Inhalation reference doses and cancer slope factors were not available for many chemicals detected in site soils and groundwater which would result in a potential underestimation of risk for the inhalation pathway; and (5) The model used in the RI to estimate exposure point concentrations in crops irrigated with groundwater may under- or overestimate risk through the crop ingestion pathway.

Ecological Risk Assessment

A baseline risk assessment for ecological receptors at the Landfill 1 AOC was conducted during the RI. The environmental evaluation modeled risks to raccoons, shrews, and American woodcocks from exposures to surface soil, surface water, and sediment.

The HQs indicative of risks to the raccoon were calculated to be below 1; therefore, the potential for adverse effects to this ecological receptor is considered to be insignificant. The HQ for the short-tailed shrew exceeded 1 for one out of over 100 chemicals (4 chloro-2-methyl phenoxyacetic acid [MCPA], HQ = 6.6). For the American

woodcock, the HQ exceeded 1 for two chemicals (MCPA, HQ =3.6; and strontium, HQ = 1.2). These values indicate a potential for adverse effects.

Modeling of bioaccumulation to higher order species was not performed, which tends to underestimate the risk to ecological receptors. Also, the risks to ecological receptors in impacted areas (e.g., Six Mile Creek) were not considered in this AOC's risk assessment but were considered in the selection of the preferred remedial action.

There are no plant or animal species at the former base that are considered to be threatened or endangered by the U.S. Department of the Interior. However, whorled-mountain mint, a listed New York State threatened plant species, has been identified adjacent to the wetlands along Six Mile Creek.

Actual or threatened release of contaminants from the AOC, if not addressed by implementing the response action selected in this ROD, may present a potential threat to public health, welfare, or the environment.

2.6 Remedial Action Objectives

The following are the remedial action objectives developed for this site based upon the use of the presumptive remedy guidance and the site data:

- Consolidation of various debris and waste areas into the main landfill boundary in order to reduce the area to be capped and the potential for nearby wildlife and human populations to be exposed to the landfill mass;
- Significantly reduce infiltration of rain water and snow-melt water through the landfill mass in order to minimize the potential for leachate generation and groundwater contamination;
- Collection and treatment of groundwater/leachate in order to reduce or eliminate the discharge of contaminants to the environment; and
- Monitoring groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site to evaluate the effectiveness of the presumptive remedy.

2.7 Description and Evaluation of Remedial Action Alternatives

CERCLA regulations mandate that a remedial action must be protective of human health and the environment, cost effective, and utilize permanent solutions and treatment technologies to the maximum extent practicable. These regulations also establish a preference for remedial actions that employ, as a principal element, treatment to permanently and significantly reduce the volume, toxicity, or mobility of contaminants at a site. As part of the presumptive remedy approach, the proposed plan evaluated a no action scenario as dictated by CERCLA and compared it to the presumptive remedy alternative. A summary of the two alternatives is presented below.

No Action Alternative

CERCLA requires that the no action alternative be compared with other alternatives. Under the No Action Alternative, no remedy would be implemented at the Landfill 1 AOC. The site would remain as it is now and there would be no monitoring of contaminants in the groundwater. Contaminated groundwater would continue to seep as leachate from the west side of the landfill possibly contaminating Six Mile Creek. No institutional controls restricting habitation or use would be established. Costs and construction time are not associated with this alternative.

Presumptive Remedy Alternative

The Presumptive Remedy Alternative includes (1) implementation of institutional controls in the form of deed restrictions of the main landfill boundary and the contaminated groundwater plume area to prevent exposure to the contaminated landfill mass and groundwater; (2) collection of groundwater/leachate from a trench located at the landfill toe; (3) treatment of collected groundwater/leachate by carbon adsorption and discharge of treated water into Six Mile Creek; (4) installation of an impermeable cover in accordance with 6 NYCRR Part 360 landfill closure regulations, dated November 26, 1996; (5) maintenance of the impermeable cover and long-term monitoring of the groundwater, surface water, and sediment in accordance with 6 NYCRR Part 360 landfill post-closure regulations, dated November 26, 1996; and (6) monitoring the groundwater and stream environment downgradient of the site to evaluate the effectiveness of the

presumptive remedy. Any rare plants, significant communities or wetlands disturbed during the remedial action will be restored. Construction costs will be in the range of $5 million to $7 million, and operation and maintenance (O & M) costs will be approximately $30,000 per year. The project duration will be 9 to 12 months.

2.8 Summary of Comparative Analysis

Remedial alternatives are assessed on the basis of both a detailed and a comparative analysis pursuant to the NCP. The detailed analysis of Landfill 1 consisted of (1) an assessment of the individual alternatives against nine evaluation criteria and (2) a comparative analysis focusing upon the relative performance of each alternative against the criteria. In general, the following "threshold" criteria must be satisfied by an alternative for it to be eligible for selection:

1. Overall protection of human health and the environment addresses whether a remedy provides adequate protection and describes how risks posed through each exposure pathway (based on a reasonable maximum exposure scenario) are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

2. Compliance with ARARs addresses whether a remedy would (1) meet all of the ARARs or (2) provide grounds for invoking a waiver.

In addition, the following "primary balancing" criteria are used to make comparisons and identify the major trade-off among alternatives:

3. Long-term effectiveness and permanence refers to the ability of a remedy to maintain reliable protection of human health and the environment over time once cleanup goals have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.

4. Reduction of toxicity, mobility, or volume via treatment refers to a remedial technology's expected ability to reduce the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants at the site.

5. Short-term effectiveness addresses (1) the period of time needed to achieve protection and (2) any adverse impacts on human health and

the environment that may be posed during the construction and implementation periods until cleanup goals are achieved.

6. Implementability refers to the technical and administrative feasibility of a remedy, including the availability of materials and services needed.

7. Cost includes estimated capital, operation and maintenance, and present-worth costs.

Finally, the following "modifying" criteria are considered fully after the formal public comment period on the Proposed Plan is complete:

8. State acceptance indicates whether, based on its review of the RI and the Proposed Plan, the State supports or opposes the preferred alternative and/or has identified any reservations with respect to the preferred alternative.

9. Community acceptance refers to the public's general response to the alternatives described in the Proposed Plan and the RI reports. Factors of community acceptance include support, reservation, or opposition by the community.

A comparative analysis of the two alternatives based on the nine evaluation criteria follows:

1. Overall Protection of Human Health and the Environment

   The No Action alternative would not contribute to protection of human health and the environment. The groundwater is not currently being used for domestic purposes; therefore it does not currently pose a threat to human health. However, ARARs would continue to be exceeded in the aquifer, which would pose a risk should the groundwater be used for domestic purposes in the future. In addition, groundwater would continue to discharge into Six Mile Creek at the west side of the landfill. While specific human health and environmental hazards have not been documented from this release, the groundwater discharging as leachate has been found to contain a variety of organic compounds at very low levels that would continue to discharge into the creek.

   The Presumptive Remedy alternative would actively reduce concentrations in the aquifer to help prevent future exposures to contaminants and thus provide future benefit to human health and the

environment in future potential exposure scenarios. Furthermore, the discharge of contaminated groundwater into Six Mile Creek would be halted, thus preventing future adverse impacts on the creek from this release.

2. Compliance with ARARs

   With no treatment of contaminated groundwater and leachate, the No Action alternative would not comply with the groundwater ARARs.

   The Presumptive Remedy alternative will comply with ARARs. By actively recovering contaminated groundwater from the aquifer, great strides will be made to reduce the concentrations in the aquifer to below ARARs. Because groundwater will be collected immediately downgradient of the landfill, ARARs may continue to be exceeded in groundwater immediately beneath the aquifer. However, the location of the collection trench will prevent contaminated groundwater from passing under Six Mile Creek and contaminating groundwater west of the creek as well as achieving compliance ARARs in this portion of the aquifer. The carbon adsorption treatment system will be fully capable of meeting action-specific ARARs and the spent carbon is not expected to be considered hazardous waste. Because the collection would be located adjacent to a wetland and construction activities may impact the wetland, location-specific ARARs for wetlands may apply. Wetland construction permits would likely be necessary to comply with location-specific ARARs.

3. Long-term Effectiveness and Permanence

   The No Action alternative would not treat or contain contaminant migration and, therefore, would not be effective in the long-term.

   Groundwater treatment by carbon adsorption does not represent a completely permanent solution to contamination at the site, as the presumed sources of groundwater contamination would likely remain within the landfill. However, the combination of capping and groundwater collection present the most aggressive approach to this contamination short of landfill excavation, which was not considered due to the large size of the landfill. Landfills are typically not excavated and removed to other disposal areas unless specific sources of contamination are present. Thorough investigations during the RI and SI demonstrated that no distinct sources of contamination are present in the landfill. Thus, the approach adopted by the presumptive remedy alternative represents the greatest long-term effectiveness appropriate for the AOC.

4. Reduction of Toxicity, Mobility, or Volume through Treatment

   The no action alternative provides no treatment or containment of contaminant migration, therefore, it does not result in any reduction in toxicity, mobility, or volume.

   The Presumptive Remedy alternative through its carbon adsorption treatment provides a high level of toxicity reduction because it treats all compounds that would otherwise discharge from the landfill as leachate. Compounds adsorbed to carbon would be thermally destroyed when the spent carbon is regenerated by the supplier.

5. Short-term Effectiveness

   Because there would be no remedial actions associated with the No Action alternative, no short-term impacts would be realized.

   The Presumptive Remedy alternative is considered to be effective in the short-term. Construction of the trench may result in some minor disruptions to wetland habitat. However, the areal extent of this disruption would be limited and re-establishment of the aquatic and benthic communities would be expected. Clearing and grubbing of the landfill would result in the loss of about 20 acres of upland habitat. This area is currently mostly well-vegetated, with both transition vegetation and mature stands of forest.

6. Implementability

   There would be no limitations to implementing the No Action alternative.

   There would be no significant impediments to implementing the Presumptive Remedy alternative.

7. Cost

   There would be no costs associated with the No Action alternative.

   Capital costs for implementation of the Presumptive Remedy will be $5 million to $7 million. O & M costs will be approximately $30,000 per year.

8. Agency Acceptance

   AFBCA, NYSDEC, and EPA have mutually agreed to select the Presumptive Remedy alternative. The Presumptive Remedy alternative satisfies the threshold criteria and ensures compliance with applicable regulations.

9. Community Acceptance

   Community acceptance of the Presumptive Remedy alternative was assessed at the public meeting and during the public comment period. The Restoration Advisory Board (RAB) supported selection of the Presumptive Remedy Alternative.

2.9 Description of the Selected Remedy

The selected remedial action alternative for the Landfill 1 AOC is the Presumptive Remedy. This alternative was chosen because it has been demonstrated to be effective for similar military landfills and is known to be both cost-effective and easy to implement. The threshold criteria are satisfied by the Presumptive Remedy. The Presumptive Remedy includes the following actions.

1. Implementation of institutional controls in the form of deed restrictions of the main landfill boundary and the contaminated groundwater plume area to prevent exposure to the contaminated landfill mass and groundwater.

2. Preparation of the landfill surface prior to providing cover materials. The landfill cover will be cleared and grubbed, and low areas will be backfilled. The landfill surface also will be regraded to prevent future erosion or ponding. Any rare plants, significant natural communities, or wetlands disturbed during the remedial action will be restored.

3. Decommissioning of monitoring wells located within the construction limits.

4. Collection of groundwater/leachate from a trench located at the landfill toe. Groundwater flow will be collected in a trench and then pumped to a treatment facility. Groundwater from the collection trench will enter a vault, where a pump will move the groundwater up to the treatment facility.

5. Treatment of collected groundwater by a carbon-adsorption system. A liquid-phase, activated-carbon system will remove contaminants of concern in the leachate. The treated water will be discharged on site to Six Mile Creek. All water to be discharged will be in compliance with the SPDES requirements.

6. Installation of an impermeable cover in accordance with 6 NYCRR, Part 360, landfill closure regulations, dated November 26, 1996. The cover at Landfill 1 will consist of a foundation layer, gas-venting layer, geomembrane, drainage layer, geotextile, barrier protection layer, and topsoil layer. The foundation layer will consist of borrow soils placed to establish the final contour and slope requirements. Other component details include: a passive gas-venting layer with trenches and gas vents; a 40-mil-thick geomembrane that will serve as the impermeable layer required by 6 NYCRR 360; a six-inch-thick drainage layer placed above the geomembrane primarily to drain water from the overlying soil; a geotextile placed above the drainage layer to restrict the movement of fine particles; and an 18-inch-thick barrier protection layer consisting of borrow soils placed above the geotextile to support vegetative growth and prevent penetration of the geomembrane. Six inches of topsoil will be placed above the barrier protection layer to support vegetation.

7. Maintenance of the impermeable cover and long-term monitoring of the groundwater, surface water, and sediment in accordance with 6 NYCRR, Part 360, landfill post-closure regulations dated November 26, 1996.

8. Monitoring the groundwater and stream environment (which may include, but is not limited to, sediment, surface water, and biota) downgradient of the site to evaluate the effectiveness of the presumptive remedy.

9. Evaluation of site conditions at least once every five years.

2.10 Statutory Determinations

The selected remedy must meet the statutory requirements of CERCLA, Section 121, which are itemized in Section 1.5 of this ROD and described below.

Protection of Human Health and the Environment

The selected remedy would actively reduce concentrations of contaminants in the groundwater, thus helping to prevent future exposures. The risks from potential future

exposure levels will be reduced to within 10^{-4} to 10^{-6}, the acceptable range within which EPA manages carcinogenic risk, and the hazard indices for noncarcinogens will be reduced to less than 1. In addition, the discharge of contaminated groundwater/leachate into Six Mile Creek will be halted, thus preventing future adverse impacts on the creek, the wildlife, and the environment from this source.

Compliance with ARARs

The selected remedy alternative will comply with chemical-specific ARARs for groundwater (see Table 2).

The carbon-adsorption treatment system will meet action-specific ARARs (technology- or activity-based requirements for remedial actions).

Because the collection trench would be located adjacent to a wetland and construction activities may impact the wetland, location-specific ARARs (restrictions placed on the concentration of hazardous substances or the conduct of activity solely because they occur in special locations) for wetlands may apply. Wetland construction permits requirements will be followed, as required, to comply with the location-specific ARARs.

Cost-Effectiveness

The cost of the remedy is typical for the scope of the remedial action.

Utilization of Permanent Solutions and Alternative Treatment Technologies to the Maximum Extent Practicable

Groundwater treatment by carbon adsorption does not represent a completely permanent solution to contamination at the site, as the presumed sources of groundwater contamination would likely remain within the landfill. However, the combination of capping and groundwater collection present the most aggressive approach to this contamination short of landfill excavation, which was not considered due to the large size of the landfill. Landfills are typically not excavated and removed to other disposal areas unless specific sources of contamination are present. Thorough investigations during the RI and SI demonstrated that no distinct sources of contamination are present in the

landfill. Thus, the approach adopted by the selected remedy represents the greatest long-term effectiveness appropriate for this AOC.

Preference for Treatment as a Principal Element

The groundwater treatment system meets the statutory preference for treatment as a principal element. The contaminated groundwater will be treated by the carbon-adsorption system, and measures to improve the landfill cover will also benefit groundwater quality.

2.11 Documentation of Significant Changes

No significant changes have been made to the selected remedy from the time the proposed plan was released for public comment.

Table 1
COMPOUNDS EXCEEDING STANDARDS OR GUIDANCE VALUES
LANDFILL 1 AOC
SURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	110 J - 270 J	1/7	224[a]
Benzo(a)pyrene	16 J - 240 J	5/7	61[a]
Dibenzo(a,h)anthracene	55 J - 75 J	2/7	14[a]
Metals (mg/kg)			
Chromium, hexavalent	0.26 - 2.1	5/7	0.45[b]
Chromium, total	6.4 J - 25.2	1/7	22.6[b]
Copper	27.1 - 443 J	7/7	43[b]
Molybdenum	5.8 - 15 J	3/7	ND[b]
Thallium	0.48 - 0.94	1/7	0.9[b]

[a] NYS-recommended soil cleanup objective.
[b] Background screening concentration.
Key:
J = Estimated concentration.
ND = Nondetect.

Table 2
COMPOUNDS EXCEEDING STANDARDS OR GUIDANCE VALUES
LANDFILL 1 AOC
GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
VOCs (µg/L)			
1,4-Dichlorobenzene	0.044 J - 7.2	1/13	4.7[a]
Benzene	0.16 J - 6	4/13	0.7[a]
Chlorobenzene	0.34 J - 11	1/13	5[a]
Ethylbenzene	0.49 J - 12	1/13	5[a]
Isopropylbenzene	0.19 J - 12	2/13	5[a]
1,2,4-Trimethylbenzene	1.8 - 100	4/13	5[a]
1,3,5-Trimethylbenzene	1.1 - 92	4/13	5[a]
Xylenes, total	1.8 - 110	3/13	5[a]
Pesticides/PCBs (µg/L)			
Dieldrin	0.001 J - 0.002 J	2/12	ND[a]
Metals (mg/L)			
Aluminum	0.097 - 141	5/12	0.05[b]
Antimony	0.00106 J - 34.9	1/12	0.003[c]
Barium	0.023 - 49	1/12	1[a]
Beryllium	0.29	1/12	0.003[c]
Cadmium	0.097 - 7.6	2/12	0.01[a]
Chromium, total	0.13 - 18.6	2/12	0.05[a]
Copper	0.01 - 5.8	2/12	0.2[a]
Iron	0.17 - 219	11/12	0.3[a]
Manganese	0.16 - 13.7	12/12	0.05[b]
Nickel	0.07 - 0.23	1/12	0.1[d]
Sodium	3.6 - 51.1	5/12	20[a]
Zinc	0.011 - 32.9	2/12	0.3[a]

[a] NYSDEC Class GA groundwater standard.
[b] Federal secondary maximum contaminant level.
[c] NYSDEC Class GA groundwater guidance value.
[d] Federal maximum contaminant level.
Key:
J = Estimated concentration.
ND = Nondetect.

Note: The calculated 95% upper confidence limit (UCL) levels are presented in the RI report.

Table 3
COMPOUNDS EXCEEDING STANDARDS OR GUIDANCE VALUES
LANDFILL 1 AOC
LEACHATE SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
VOCs (µg/L)			
1,2,4 Trimethylbenzene	4.9 - 320	1/3	5[ab]
1,3,5 Trimethylbenzene	2.1 - 250	1/3	5[ab]
1,4 Dichlorobenzene	0.06 J - 20	2/3	3[ab]
Benzene	1.3	1/3	1[ab]
Chlorobenzene	5 J - 9.4 J	2/3	5[ab]
Ethylbenzene	0.45 J - 110	1/3	5[ab]
Xylenes, Total	2.1 - 600	1/2	5[ab]
Pesticides/PCBs (µg/L)			
Aldrin	0.007 J - 0.015 J	2/4	ND[ab]
Endrin	0.001 J	1/4	ND[ab]
gamma BHC (lindane)	0.007 J	1/4	ND[b]
Aroclor 1242	1	1/3	0.09[ab]
Silvex (2,4,5-TP)	0.26 J - 5.6 J	2/5	0.26[ab]
p,p'-DDE	0.009 J	1/4	ND[b]
p,p'-DDT	0.005 J	1/4	ND[b]
Metals (mg/L)			
Iron	9.82 - 26.5	3/3	0.3[b]
Manganese	0.248 - 0.85	2/3	0.3[b]

[a] NYSDEC groundwater effluent standard (6 NYCRR 703.6).
[b] NYSDEC Class GA groundwater standard (6 NYCRR 703.5)
Key:
J = Estimated concentration.
ND = Nondetect.

Table 4
COMPOUNDS EXCEEDING STANDARDS OR GUIDANCE VALUES
LANDFILL 1 AOC
SURFACE WATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/L)			
Anthracene	0.0029 J - 0.031 J	2/3	0.003[a]
Benzo(a)anthracene	0.014 J - 0.031 J	2/3	0.003[a]
Chrysene	0.014 J - 0.032 J	3/3	0.003[a]
Fluorene	1.1 J	1/3	0.003[a]
Phenanthrene	0.091 J	1/3	0.003[a]
Pyrene	0.054 J	1/3	0.003[a]
Pesticides/PCBs (µg/L)			
Dieldrin	0.001 J	1/5	0.000071[a]
Hexachlorobenzene	0.001 J - 0.002 J	3/5	0.00072[a]
2,2,3,4,6-Pentachlorobiphenyl	0.046 J	1/3	0.000001[b]
2,2,4,4,5,6-Hexachlorobiphenyl	0.013 J - 0.036 J	3/3	0.000001[b]
2,2,4,4-Tetrachlorobiphenyl	0.034 J - 0.058 J	2/3	0.000001[b]
2,3-Dichlorobiphenyl	1 J	1/3	0.000001[b]
2,4,5-Trichlorobiphenyl	0.038 J	1/3	0.000001[b]
Metals (mg/L)			
Iron	0.21 - 0.68	2/3	0.3[b]
Lead	0.002	1/3	0.001[a]
Manganese	0.006 - 0.084	1/3	0.05[a]

[a] Federal ambient water quality criterion for protection of human health.
Reference: Quality Criteria for Water, EPA 440/5-86-001 (May 1, 1986).
[b] NYSDEC Class C surface water standard.
Key:
J = Estimated concentration.

Table 5
COMPOUNDS EXCEEDING STANDARDS OR GUIDANCE VALUES
LANDFILL 1 AOC
SEDIMENT SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
VOCs (µg/kg)			
Benzene	4 J - 6 J	2/19	0.6*[a]
Chlorobenzene	16 J	2/19	3.5*[b]
SVOCs (µg/kg)			
3-Methylphenol	290 J	1/19	0.5[b]
3-Methylphenol (P-cresol)	240 J	1/19	0.5[b]
Acenaphthylene	62 J - 69 J	2/19	44[c]
Benzo(a)anthracene	110 J - 660	3/19	1.3*[a]
Benzo(a)pyrene	130 J - 500 J	5/19	1.3*[a]
Benzo(b)fluoranthene	40 J - 1100	7/19	1.3*[a]
Benzo(k)fluoranthene	30 J - 550 J	5/19	1.3*[a]
Bis(2-ethylhexyl)phthalate	22 J - 9400 J	8/19	199.5*[b]
Chrysene	210 J - 800	3/19	1.3*[a]
Fluoranthene	15 J - 1300	2/19	600*[c]
Indeno(1,2,3-cd)pyrene	72 J - 240 J	3/19	1.3*[a]
Phenanthrene	12 J - 320 J	4/19	120*[b]
Pyrene	72 J - 1300	1/19	665[c]
Pesticides/PCBs (µg/kg)			
2,4-Dichlorobiphenyl	25 J - 66 J	3/19	0.0008*[a]
alpha Endosulfan	6.6	1/18	0.03*[b]
alpha Chlordane	0.94 J - 3.2	2/18	0.001*[a]
beta Endosulfan	9 J	1/18	0.03*[b]
BHC (Hexachlorcyclohexane)	0.82 J - 5.6	3/18	0.06*[b]
Dieldrin	3.7 J - 7.1 J	3/18	0.1*[a]
Endrin	2.1 J - 5.8 J	3/18	0.8*[a]
gamma Chlordane	1.1 J - 7.4	3/18	0.001*[a]
Malathion	50	1/18	0.02*[b]
Methoxychlor	3.6 J - 11 J	4/18	0.6*[b]
Aroclor 1260	190 J - 790	2/18	0.0008*[a]
p,p'-DDD	2 J - 540	8/18	0.01*[a]
p,p'-DDE	0.97 J - 250	9/18	0.01*[a]
p,p'-DDT	3.4 J - 1,000	8/18	0.01*[a]
Metals (mg/kg)			
Antimony	19.9	1/19	2.0[d]
Arsenic	1.3 - 76.8	9/19	6[d]
Copper	2.7 - 28.3	4/19	16[d]
Lead	8.5 - 209	9/19	31[d]
Manganese	30.8 - 11,600	7/19	460[d]
Mercury	0.44	1/19	0.15[d]
Nickel	6.4 - 23	2/19	16[d]

* Criterion expressed as µg per gram of organic carbon; sediment concentrations adjusted based on sample-specific total organic carbon before comparison reported in "Frequency of Detection Above Most Stringent Criterion" column.

[a] NYSDEC criterion for protection of human health -bioaccumulation.

[b] NYSDEC criterion for protection of benthic aquatic life.

[c] Federal guidance value, National Oceanic and Atmospheric Administration.

[d] State criterion for metals in sediment.

Key:
J = Estimated concentration.

Note: The calculated 95% upper confidence limit (UCL) levels are presented in the RI report.

Table 6
LANDFILL 1 AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

RESIDENTIAL AND AGRICULTURAL RECEPTORS	RECREATIONAL RECEPTOR	LANDSCAPE WORKER	INDUSTRIAL WORKER
Adult, Child, Youth, Adolescent	**Adult, Child, Youth, Adolescent**	**Adult**	**Adult**
• Ingestion of groundwater • Dermal contact with groundwater • Inhalation of VOCs from groundwater • Ingestion of crops irrigated with groundwater	• Inhalation of airborne chemicals • Inhalation of fugitive dust from surface soil • Incidental ingestion of surface soil • Dermal contact with surface soil • Incidental ingestion of surface water • Dermal contact with surface water • Incidental ingestion of sediments • Dermal contact with sediments	• Incidental ingestion of surface soil • Inhalation of fugitive dust from surface soil • Dermal contact with surface soil • Inhalation of airborne chemicals	• Ingestion of groundwater • Dermal contact with groundwater • Inhalation of VOCs from groundwater

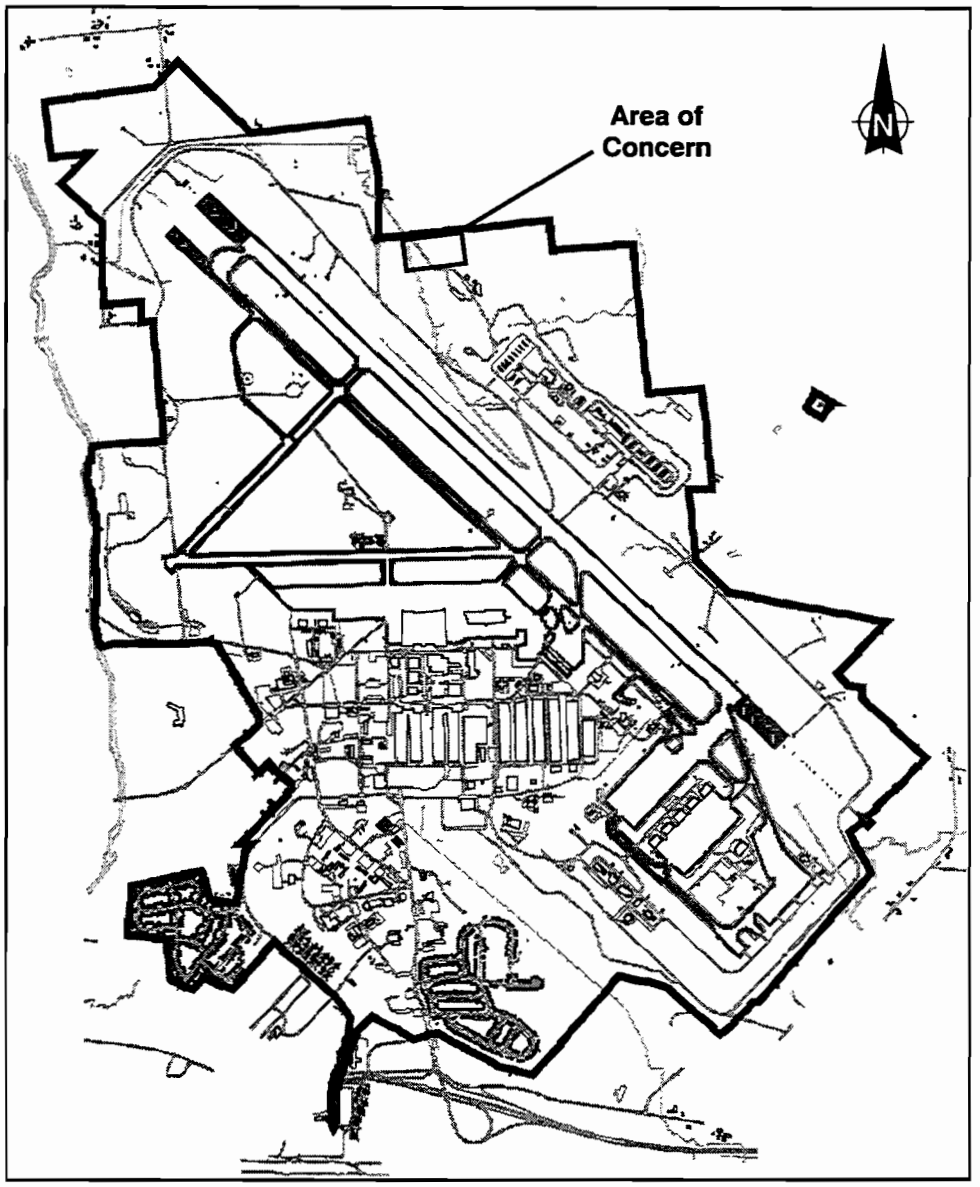


Figure 1: Landfill 1 AOC Location Map

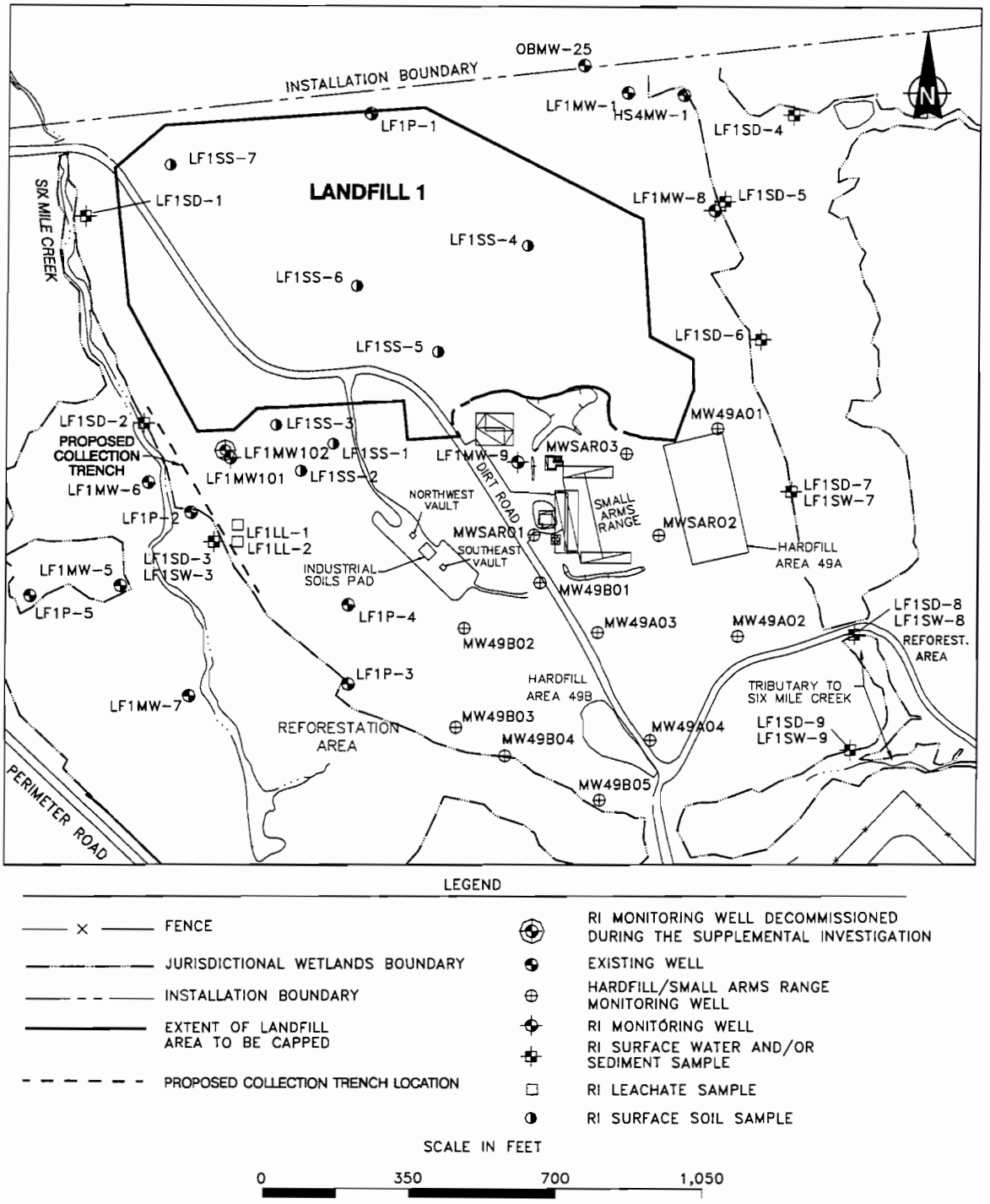


Figure 2: Landfill 1 AOC Site Map

3 Responsiveness Summary

On Tuesday July 20, 1999, AFBCA, following consultation with and concurrence of the EPA and NYSDEC, released for public comment the proposed plan for remedial action at Landfill 1 AOC at the former Griffiss Air Force Base. The release of the proposed plan initiated the public comment period, which concluded on August 19, 1999.

During the public comment period, a public meeting was held on Tuesday August 10, 1999, at 5:00 p.m. at the former base chapel located at 525 Kirkland Drive. A court reporter recorded the proceedings of the public meeting. A copy of the transcript and attendance list are included in the Administrative Record. The public comment period and the public meeting were intended to elicit public comment on the proposal for remedial action at the site.

This document summarizes and provides responses to the verbal comments received at the public meeting and the written comments received during the public comment period.

Comment #1 (oral)

Following a description of the proposal to treat leachate and discharge it to Six Mile Creek in accordance with standards established by the SPDES requirements, one commentor asked if the AFBCA was aware that a lot of children still swim and play in the Six Mile Creek.

Response #1

The AFBCA is aware that children swim and play in the creek. The discharge criteria established by the NYSDEC in the SPDES requirements represent stringent standards that are protective of human health and the environment. The proposed remedial action will improve the creek environment.

Comment #2 (oral)

One commentor asked about Landfill 7 which is still draining into Six Mile Creek.

Response #2

Separate proposed plans are being developed for both Landfill 7 and Six Mile Creek.

Comment #3 (oral)

One commentor indicated that the Restoration Advisory Board had an independent consultant review the proposed plan for Landfill 1. The consultant's report is available in the public record. The commentor stated, "Basically, the report says that the approach put forth by the BCA is reasonable and, under current-day expectation for the technology of how to treat landfills, is acceptable." The commentor indicated, however, that the report "is not without dissent, and other members of the Board do not agree."

Response #3

Yes, in the report, the consultant states, "The remedies selected for the Landfill 1 AOC are standard industry responses and technologies and should adequately address the environmental risks associated with the site. In fact, there are redundant levels of protection in the remedy."

Comment #4 (oral)

A dissenting member of the Restoration Advisory Board voiced two concerns. a) "Number one is that there are some unknown substances in this landfill that are leaching out." The commentor states that, based on a report by the Department of Health, State of New York, "there are some farms in the nearby vicinity of Griffiss that have dairy cows that have significant amounts of dioxin and furans in their milk." The commentor further states that the report was issued to "see if there was a relationship between the dioxin in the milk and the garbage-burning plants that was in existence in the past near Griffiss. Overall, the results suggest, but do not prove, that the incinerator or emissions of some chemicals may have had an impact on the chemical levels in the milk around some of the incinerators. So it's saying that it suggests, but it didn't prove. Well, that means maybe there is some other source or other sources. And maybe this landfill or other landfills on the Base may have been a source for these dioxins and furans that are in the food chain in significantly higher amounts." The commentor suggests that the presence of dioxins and furans should be checked. b) As a second concern, the commentor believes that "capping an unlined landfill doesn't make any sense at all. I think it's been proven that we need lined landfills with leachate collection systems...I look at it as a pacifier...and I'm not sure that it's good enough. I think that the material should be removed and placed in a lined landfill with a proper leachate collection system."

Response #4

a) The purpose of the Department of Health study referred to was to determine (as quoted from the study) "if air contaminant emissions from municipal solid waste incinerators can be detected in cow's milk and other environmental media at nearby dairy farms." The investigators did not initiate the study because high concentration of dioxins and furans had been detected in the milk. The results of the study did not demonstrate significant impacts and the report observed that all of the results for dioxins and furans, metals and chlorobenzenes in milk and environmental media were similar to levels in background samples reported by other investigators. Nevertheless, the proposed remedy will reduce or eliminate both known and unknown substances from leaching to the creek.

b) Capping the landfill as it exists now is expected to reduce the amount of rain water/snow melt that infiltrates the landfill, comes into contact with the waste, and creates leachate. Capping, installation of a leachate treatment system and long-term monitoring of environmental media is often the preferred remedy for unlined landfills due to the chemical exposure potential (both to the workers and the nearby residents due to wind dispersion and runoff), potential for release of contaminants and creation of more leachate when the existing cap must be removed, physical hazards, and costs associated with waste excavation and reburial. It has been estimated that to excavate a 21-acre landfill, it would probably take approximately 22,000 dump truck loads of outgoing material and at least half that again for incoming clean fill. At a rate of 10 trucks per day, excavating the landfill may take about 10 years. The selected remedy for the Landfill 1 AOC is a Presumptive Remedy, which was developed in accordance with EPA Presumptive Remedy Guidance for Military Landfills, dated April 29, 1996, for the expeditious cleanup of sites that are similar in character to a large number of CERCLA sites that have already been remediated.

Comment #5 (written)

One commentor asked if the leachate/groundwater collection system will be a covered underground collector or an open trench because "open collection trenches are inappropriate for the collection of landfill leachate."

Response #5

At a minimum, the trench will be covered by a grate, but it will most likely be a completely subsurface design.

Comment #6 (written)

One commentor is concerned that the proposed treatment method, carbon adsorption, is not an acceptable treatment method for biological contaminants that may be present in the leachate. The commentor further states that "the leachate should, after carbon treatment, be collected and transported to a municipal sewage treatment facility for final treatment before being discharged."

Response #6

The final design of the treatment system will address biological contaminants (e.g. biological oxygen demand [BOD], total organic carbon [TOC], etc.). All water to be discharged to the creek will be in compliance with the SPDES requirements. If necessary, the final design will include pretreatment and post-treatment components so that standards can be achieved.

Comment #7 (written)

One commentor expressed the following concerns: a) Landfill 1 is not actually being cleaned up. "Everything is still there in the ground. To me, cleaning it properly means digging up the toxic chemicals and removing them to a hazardous waste landfill." b) The water from the higher elevation will flow through the landfill because the sides won't be lined and each spring as the water table rises, it will dissolve the water soluble toxins. c) Collecting the leachate will be a challenge due to seepage from several areas and since seepage has been going on for many years, the damage has already been done. d) In the late 60s there were turtles, frogs and lots of wildlife but now the creek is just dead; the color of the creek indicates something is amiss. e) "Too many people have had their health and well being affected by these toxic chemicals flowing from GAFB via Six Mile Creek." f) The only way to have a decent cleanup is that "those responsible for doing the cleanup should be made to live in the affected area." g) The commentor requests that signs be posted warning people not to swim, fish, or wade in Six Mile Creek.

Response #7

a) As stated in Response #4 b): Capping, installation of a leachate treatment system and long-term monitoring of environmental media is often the preferred remedy for unlined landfills due to the chemical exposure potential (both to the workers and the nearby residents due to wind dispersion and runoff), potential for release of contaminants and creation of more leachate when the existing cap must be removed, physical hazards, and costs associated with waste excavation and reburial. It has been estimated that to

excavate a 21-acre landfill, it would probably take approximately 22,000 dump truck loads of outgoing material and at least half that again for incoming clean fill. At a rate of 10 trucks per day, excavating the landfill may take about 10 years. The selected remedy for the Landfill 1 AOC is a Presumptive Remedy, which was developed in accordance with EPA Presumptive Remedy Guidance for Military Landfills, dated April 29, 1996, for the expeditious cleanup of sites that are similar in character to a large number of CERCLA sites that have already been remediated.

b) Any leachate seeping from the landfill will be significantly stopped by the collection trench thereby preventing its entry into Six Mile Creek. It should also be noted that while some of the waste materials in the landfill are in direct contact with the groundwater table, the bulk of waste is well above.

c) The leachate collection system will most likely be designed to capture all of the leachate going toward Six Mile Creek thereby reducing or eliminating any further degradation of the creek.

d) Recently, several government agencies, including NYSDEC and the United States Fish and Wildlife Service, evaluated the aquatic life in Six Mile Creek and determined that the habitat is of a relatively high quality for fish and wildlife. Fish and frogs were observed and there was evidence of wildlife that would eat the fish and use the creek. The cloudiness and orange-staining of some portions of the creek may be due to elevated colloidal iron, which is present in the Landfill 1 leachate. This discoloration was considered during the selection of this presumptive remedy. A separate proposed plan will be issued for Six Mile Creek.

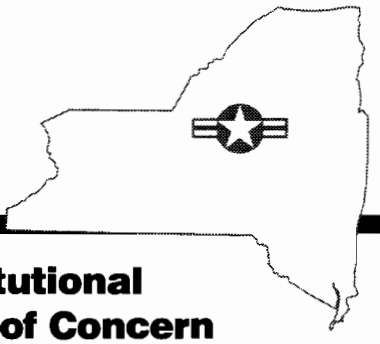
e) While no documented cases of illness from exposure to chemicals in Six Mile Creek are known to us, the AFBCA nonetheless recognizes that any exposure can cause concern. We believe the remedy selected for Landfill 1 will aid in the reduction of contaminant loading to the creek and, in conjunction with future remedies at other sites along the creek, will restore the entire length of the stream to a condition approximating that which existed prior to the establishment of the base. As a final note, please understand that chemical sampling of off-base portions of the creek have never indicated an unacceptable risk to humans was present, rather, the bulk of the actions being taken are targeted at environmental receptors.

f) The remedial action objectives have been designed to reduce exposure to nearby wildlife and human populations; minimize the potential for leachate generation and groundwater contamination; reduce or eliminate the discharge of contaminants to the environment and establish long-term monitoring to evaluate the effectiveness of the presumptive remedy.

g) If necessary, NYSDEC would require that signs be posted restricting the use of the creek. Presently there are no NYSDEC fish advisories for Six Mile Creek.

Proposed Plan

BUILDING 20 AOC

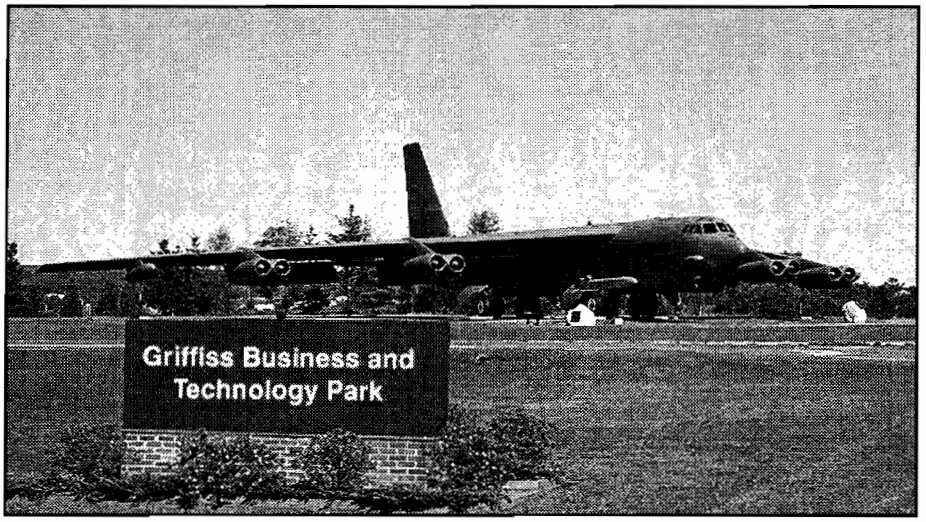


Former Griffiss Air Force Base
Rome, New York
Public Comment Period
XXXXX X, 2001 - XXXXX X, 2001

December 2000

Air Force Recommends Institutional Controls at Building 20 Area of Concern

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This ***proposed plan*** is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). The Air Force recommends institutional controls in the form of land use restrictions for industrial/commercial use for the Building 20 ***Area of Concern***. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use.

The document has been prepared in accordance with public participation requirements of the ***Comprehensive Environmental Response, Compensation, and Liability Act of 1980,*** *as amended,* ***the National Contingency Plan***, and the former Griffiss Air Force Base (AFB) ***Federal Facility Agreement***. In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies."

This plan is intended to elicit public comments on the proposal to provide institutional controls at the site. The final decision or ***Record of Decision*** will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Building 20 AOC.
- The proposed plan to provide institutional controls at Building 20 AOC.
- How you can participate in the final decision process for Building 20 AOC.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone***.

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priority List.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world.

On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of AOCs on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a baseline risk assessment; a community relations plan; and an RI report. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The draft Closure Certification Report for Interim Remedial Action was delivered on May 24, 2000.

This proposed plan for institutional controls is based on an evaluation of potential threats to human health and the environment due to contamination in the soil and groundwater and the performance of interim remedial actions at the Building 20 AOC.

During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. The risk assessment for this site evaluated an industrial use scenario. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

BUILDING 20 AREA OF CONCERN

Building 20 is located in the south-central portion of the base along the southern margin of the industrial complex (see Figure 1). It is bounded by Perimeter Road to the west and Ellsworth Road to the south (see Figure 2). Building 20 is the locomotive roundhouse, which was used to store and service diesel locomotives at the former base. Operations at Building 20 began in 1943. During operations, lubricants and diesel locomotive parts were used and stored in the roundhouse. PCB-containing hydraulic fluids were used in the locomotives.

In the northwest corner of Building 20, a sump collects surface runoff from floor drains located in Building 20. Liquid collected in the sump is pumped to the sanitary sewer, which ultimately discharges to the Rome publicly owned treatment works. A concrete conduit for steam lines is connected to the sump. The conduit runs north from the sump to the north wall of Building 20 where steam service enters the building. Sometime in the past, the steam service was rerouted overhead and the concrete conduit was abandoned. It is not known whether the conduit was subsequently plugged.

Building 20 is located on an area of the base that is topographically level, with about 3 feet of relief occurring in the surrounding area. The area around Building 20 is grassy to the south and predominantly paved to the north. The building is not located near any major surface water drainage features. Surface water runoff from the site is collected by the former base's storm drainage system. Storm drains run south to north on both the east and west sides of Building 20, carrying runoff to Six Mile Creek, which ultimately drains to the New York State Barge Canal.

Building 20 AOC is located on a groundwater divide; groundwater on the west side of the AOC flows to the west toward Three Mile Creek and on the east side groundwater flows east to Rainbow Creek.

The upper 2 feet of soil consists of fine-to-medium sand with silt and/or gravel. Subsurface soils and soils below the concrete inside the building and below the asphalt outside the building consisted primarily of fine to medium sand with variable silt and gravel ranging from 2 to 20 feet below ground surface (BGS).

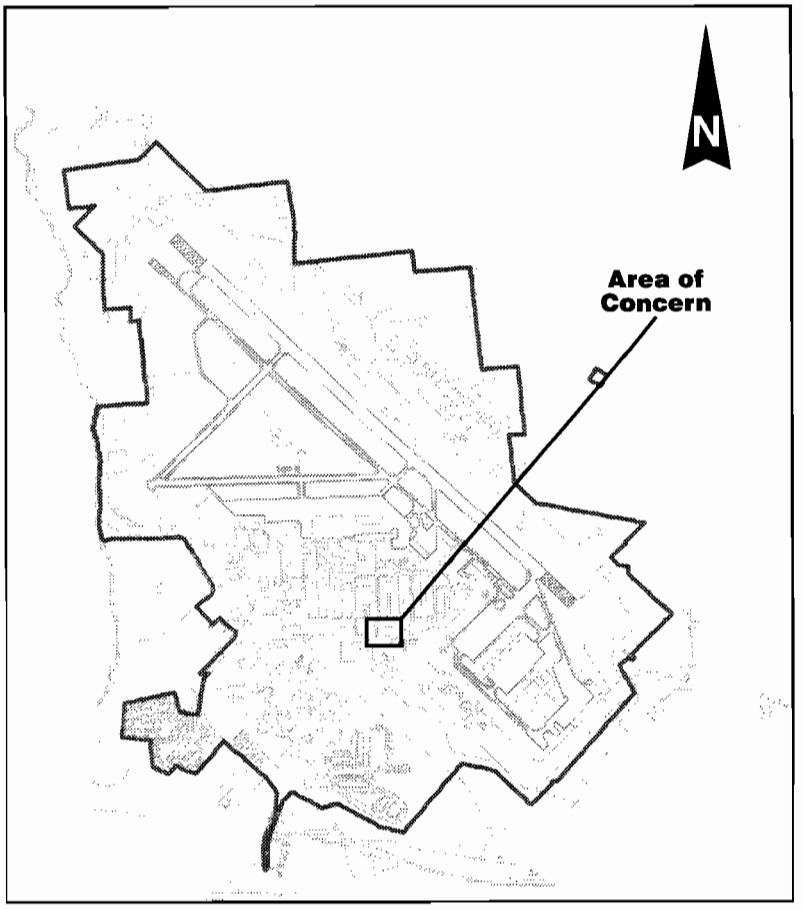


Figure 1: Building 20 AOC is located in the south central portion of the former Griffiss AFB.

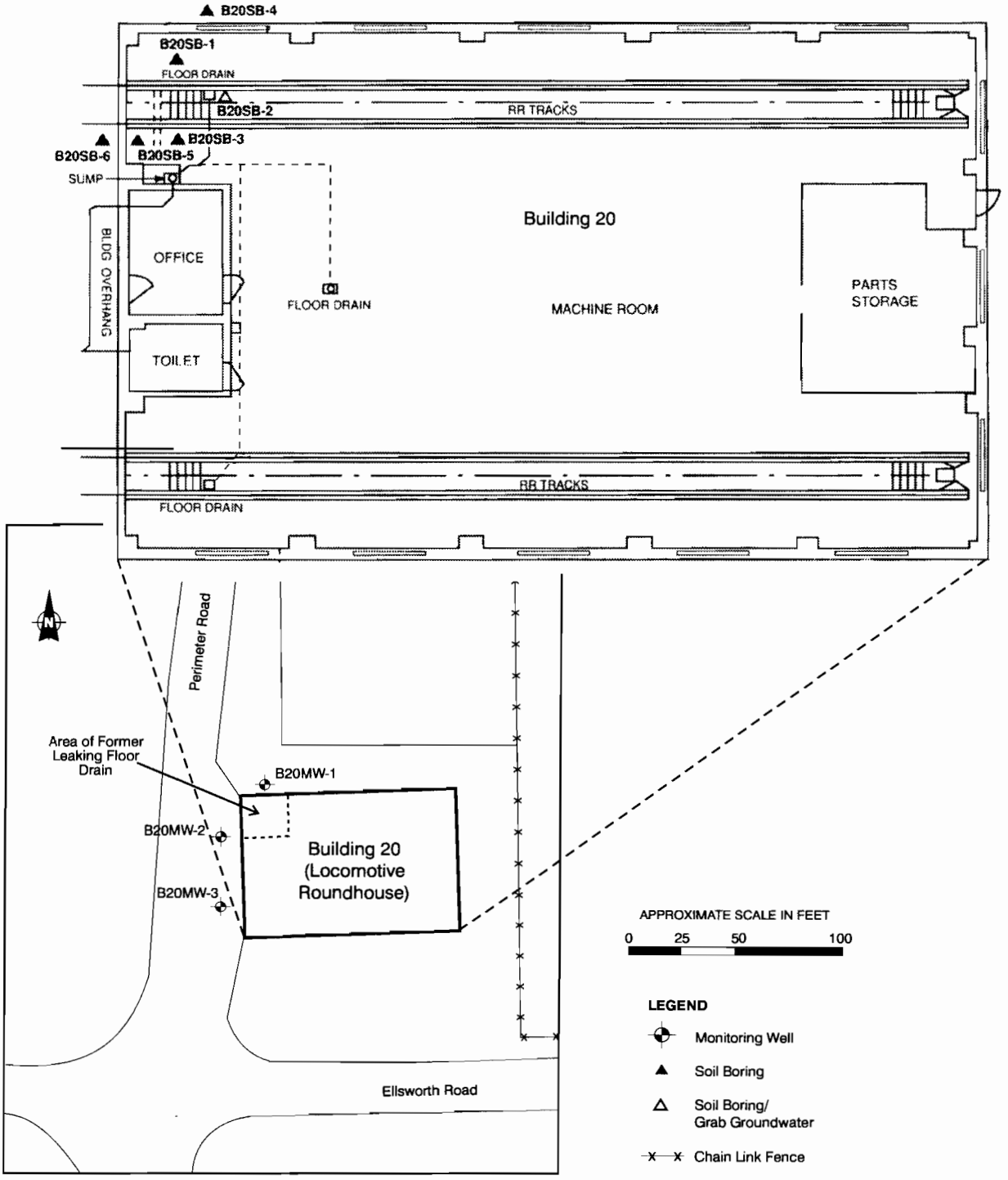


Figure 2: Building 20 AOC

SUMMARY OF SITE ACTIVITIES

Investigations

In 1985, soil was removed as part of steam tunnel entrance work at the northwest corner of Building 20. The construction contractor encountered a concrete conduit that housed a previously abandoned steam line. Upon penetration of the foundation, approximately 150 to 200 gallons of a free flowing oily liquid entered the excavation. It was determined that a floor drain system within the building and connected to the sanitary sewer system had developed a break which allowed waste fluids to leak into a cavity beneath the floor.

All recoverable liquid, contaminated soil, concrete, and debris encountered were containerized into 55-gallon drums (16 drums of liquids and 141 drums of solids). Subsequent analysis of the excavated material reported 109 parts per million (ppm) ***PCBs***, 700 ppm lead, and 446,000 ppm oil and grease. This material was properly disposed of by the Air Force in 1987.

In 1986, subsurface investigations at the northwest corner of Building 20 were performed. Five soil borings were advanced through the concrete floor inside the building, soil samples were collected at 2-foot intervals to groundwater (encountered at 8 feet BGS), and one grab groundwater sample was collected from each soil boring. One monitoring well B20MW-1 was also installed. The sampling results revealed residual hydrocarbon contamination in all borings and residual metals near the surface in the northwest and southwest corners of the building.

In 1992, as part of the 1992/1993 quarterly sampling program, B20MW-1 was sampled for four consecutive quarters. Three ***volatile organic compounds***, one ***semivolatile organic compound***, and ten metals were detected. Glycols were detected in two of the four quarters of sampling.

In 1994, an RI was performed. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any further remedial action was necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions. The RI included the drilling of six soil borings; the collection of 19 soil samples for on-site field screening analysis (four of which were confirmed off-site); the collection of one grab groundwater sample from one of the soil borings; and the installation and sampling of two groundwater wells (B20MW-2 and B20MW-3) and sampling of the one existing well (B20MW-1).

PCBs
(polychlorinated biphenyls) a group of synthetic organic chemicals with varying harmful effects. Humans come in contact with PCBs by breathing air, ingesting soil or water, and through dermal contact with soil or water containing PCBs.

Volatile Organic Compounds (VOCs)
a group of organic compounds that have a tendency to vaporize readily.

Semivolatile Organic Compounds (SVOCs)
a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

No analytes were detected in the field screening of the one grab groundwater sample collected for the RI. Analysis of the groundwater samples indicated the presence of four VOCs, 17 SVOCs, eight pesticides, 21 metals, and petroleum hydrocarbons. The concentrations of six SVOCs, one pesticide, seven metals, and petroleum hydrocarbons exceeded the most stringent criterion for groundwater (see Table 1).

Analysis of the soil samples collected during the RI field screening indicated the presence of two SVOCs, and eight metals. Three metals were detected at concentrations above the potential TBCs and background screening levels. Analysis of the confirmatory soil samples analyzed off site revealed the presence of five VOCs, 18 SVOCs, five pesticides, one PCB, 23 metals and petroleum hydrocarbons. The concentrations of five SVOCs and four metals exceeded potential TBCs or background screening concentrations for soil (see Table 2).

Table 1
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 20 AOC
GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/L)			
Benzo(a)anthracene	0.2 J - 0.3 J	2/4	0.002 [a]
Benzo(a)pyrene	0.2 J	2/4	ND
Benzo(b)fluoranthene	0.2 J - 0.4 J	2/4	0.002 [b]
Benzo(k)fluoranthene	0.08 J - 0.09 J	2/4	0.002 [b]
Chrysene	0.3 J - 0.4 J	2/4	0.002 [b]
Indeno(1,2,3-cd)pyrene	0.04 J - 0.09 J	2/4	0.002 [b]
Pesticides/PCBs (µg/L)			
Dieldrin	0.005 J	1/4	0.004 [a]
Metals (mg/L)			
Aluminum	0.66 - 1.02	2/3	0.05 [c]
Antimony	0.0142 J	1/3	0.003 [a]
Chromium	0.0142 J - 0.114 J	1/3	0.05 [a]
Iron	0.088 J - 2.65	2/3	0.3 [a]
Manganese	0.088 - 0.816	3/3	0.05 [c]
Sodium	36.8 - 384	3/3	20 [a]
Thallium	0.00045 J - 0.005 J	1/3	0.0005 [b]
Wet Chemistry (mg/L)			
Petroleum Hydrocarbons	0.09 J - 0.13 J	3/3	0.1 [a]

[a] NYSDEC Class GA groundwater standard; June 1998

[b] NYSDEC Class GA groundwater guidance values; June 1998

[c] Federal secondary maximum contaminant level

Key:
J = Estimated concentration*
ND = Nondetect
U = Analyte not detected

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

Table 2
COMPOUNDS EXCEEDING GUIDANCE VALUES
BUILDING 20 AOC
SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	31,000 J	1/4	224 [a]
Chrysene	38,000 J	1/4	400 [a]
Fluoranthene	130 J - 55,000	1/4	50,000 [a]
Phenanthrene	130 J - 75,000	1/4	50,000 [a]
Pyrene	100 J - 73,000 J	1/4	50,000 [a]
Metals (mg/kg)			
Calcium	1,950 - 74,800	2/4	23,821 [b]
Chromium	9.8 - 27.7 J	1/4	22.6 [b]
Silver	0.61 J - 6.4 J	1/4	1.1 U [b]
Sodium	196 - 598	1/4	259 [b]

[a] NYS-recommended soil cleanup objective

[b] Background screening concentration

Key:
J = Estimated concentration*
U = Analyte not detected

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the Building 20 AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils and groundwater at the site. The results of this assessment and the interim remedial action (see page 10) were considered when formulating this proposed paln for institutional controls.

Human Health Risk Assessment

Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Building 20 AOC could pose health risks to individuals under current and proposed future land use. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification—identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment—estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment—determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization—summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soils and groundwater at the site were considered chemicals of potential concern with the exception of inorganics detected at concentrations less than twice the mean background concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). As a class, petroleum hydrocarbons were not included as a chemical of concern; however, the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated.

The current land use designation for the Building 20 AOC is industrial. In accordance with the Griffiss Redevelopment Planning Council redevelopment scenario, the future land use designation is commercial/administrative. The human health risk assessment evaluated exposure to potential utility and construction workers that may be exposed to chemicals detected in the soils and industrial workers that may be exposed to groundwater. The various exposure scenarios for each population are described in Table 3. Intake assumptions, which are based on EPA guidance, are more fully described in the RI.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Building 20 AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

Table 3
BUILDING 20 AOC
RISK ASSESSMENT
EXPOSURE SCENARIOS

UTILITY AND CONSTRUCTION WORKERS	INDUSTRIAL WORKER
• Incidental ingestion of soils • Inhalation of fugitive dust • Dermal contact with soils	• Ingestion of groundwater • Dermal contact with groundwater • Inhalation of VOCs from groundwater

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. Once either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as the point of departure for determining remediation goals for alternatives.

Results of Site-Specific Health Risk Assessment

Potential risks from exposure to COPCs at the Building 20 AOC were evaluated for utility, construction, and industrial workers during the RI, prior to the interim remedial action. The potential carcinogenic and noncarcinogenic risks from exposure to soil and groundwater are summarized below.

Carcinogenic Risk

The total carcinogenic risk associated with exposure by utility workers to subsurface soil is 1×10^{-6}, which is at the low end of the EPA's target risk range. The pathway-specific risks for utility workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were 1×10^{-6}, 3×10^{-10}, and 5×10^{-9}, respectively.

The total carcinogenic risk associated with exposure by construction workers to subsurface soil is 2×10^{-6}, which is within the EPA's target risk range. The pathway-specific risks for construction workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were 2×10^{-6}, 8×10^{-11}, and 1×10^{-9}, respectively.

The total carcinogenic risk associated with exposure by industrial workers to contaminants in groundwater is 1×10^{-4}, which is equal to the upper end of the EPA's target risk range. The pathway-specific risks for industrial workers from incidental ingestion of groundwater, inhalation of VOCs released from groundwater, and dermal contact with groundwater were 5×10^{-5}, 4×10^{-9}, and 6×10^{-5}, respectively. The risks from incidental ingestion of groundwater contaminated with arsenic and dermal contact with groundwater contaminated with benzo(a)pyrene were the greatest contributors to the risk.

Noncarcinogenic Risk

The total HI for potential utility workers exposed to subsurface soil was 0.001. This cumulative HI is below the acceptable level of 1.

The total HI calculated for potential construction workers exposed to subsurface soil was 0.05. This cumulative HI is below the acceptable level of 1.

The total HI for potential industrial workers exposed to groundwater was 2.0. This HI is above the acceptable level of 1. The calculated hazard indices for industrial workers from incidental ingestion of groundwater, inhalation of VOCs released from groundwater, and dermal contact with groundwater were 2.0, 2×10^{-6}, and 0.01 respectively. The exposure pathway presenting the greatest potential noncarcinogenic hazard was from the incidental ingestion of groundwater contaminated with thallium, manganese, antimony, and arsenic. None of the four contributors to the hazard index of 2 have the same target organ. Thus, the hazard index separated by target organ does not exceed the benchmark value of 1.

Toxicity values were not available for 2-methylnaphthalene, acenaphthylene, benzo(g,h,i)peryline, phenanthrene, coumaphos, and chloroneb and, therefore, the risk arising from exposure to these compounds was assessed qualitatively. Possible exposures to the site concentrations of these compounds are unlikely to pose a health hazard for occupational receptors potentially performing intrusive activities at this site.

The results of the human health baseline risk assessment indicate that chemicals in soil should not present a risk to current and future utility, construction, and industrial workers. The only potentially unacceptable risk was to industrial receptors from incidental ingestion of groundwater (HI equal to 2), which is an unlikely scenario. Quantitative evaluation of risk is subject to several conservative assumptions and should not be considered an absolute measure of risk.

Uncertainties

Uncertainties exist in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and health-protective assumptions throughout the entire risk assessment process results in an assessment that is protective of human health and the environment. Examples of uncertainties associated with the risk assessment for this AOC include (1) Chemical samples were collected from the suspected source of contamination rather than through random sampling, which may result in a potential overestimation of risk; (2) The HIs associated with dermal contact with soil were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (3) The models used in the RI are likely to overestimate exposure point concentrations in air, which would cause an overestimation of risk for the inhalation pathway; (4) Toxicological criteria were not available for all chemicals found at the site, which may result in an underestimation of risk; (5) Construction at the site was assumed to occur over a one year period. Since construction may take less time to complete, this would result in an overestimation of risk; (6) It was assumed that groundwater would be used for industrial purposes in the future, however this is unlikely since the site has ready access to existing water supplies at the former base and in the city of Rome. This would result in an overestimation of risk.

Ecological Risk Assessment

A baseline risk assessment for ecological receptors at the Building 20 AOC was conducted during the RI. Since Building 20 is located in a highly developed portion of the base, no complete exposure pathways for ecological receptors were identified. Contamination that may be associated with the site is expected to be well below ground surface and ecological receptors are not expected to be found at these depths. In addition, the future land use designation is expected to remain industrial. Therefore, potential exposures related to this AOC are not expected to exist.

Although certain state-listed endangered plants and animals have been on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

INTERIM REMEDIAL ACTION

In 1998, following the RI and baseline risk assessment an interim remedial action was performed to remove contaminated soil beneath the floor near the northwest corner of the building (see Figure 3). The work consisted primarily of saw cutting and removal of concrete, soil excavation, confirmation sampling, transportation and off-site disposal of excavated materials, grouting of abandoned pipelines, plugging and capping of existing floor drains and sumps, backfilling, and concrete restoration. A brief summary of this remedial action is provided below.

Remedial action work activities began on August 12, 1998. Equipment was mobilized, work zones were established, and the floor was saw cut in the area of the large excavation in the northwest corner of the building. The concrete was removed and stockpiled on a bermed liner. On the following day, the concrete floor was saw cut around the floor drains and the concrete removed. All pipes leading to the northwest and south bay sumps were removed, plugged, and grouted and the sumps were plugged and capped. Contaminated soil was excavated from the northwest corner and added to the concrete stockpile on the bermed liner. The estimated volume of soil removed from the excavation was 2.1 cubic yards.

Confirmatory samples were taken after the removal action was completed to verify the effectiveness of this interim remedial action. The results of the confirmatory soil samples were compared to the project cleanup goals and NYSDEC TAGM 4046 guidance values. The confirmatory sample results were acceptable and the project goals were met. After the project goals were met, the excavated area was backfilled with clean material and the concrete floor slab replaced.

On October 16, 1998, the stockpiled material was loaded for transport to Seneca Meadows for disposal.

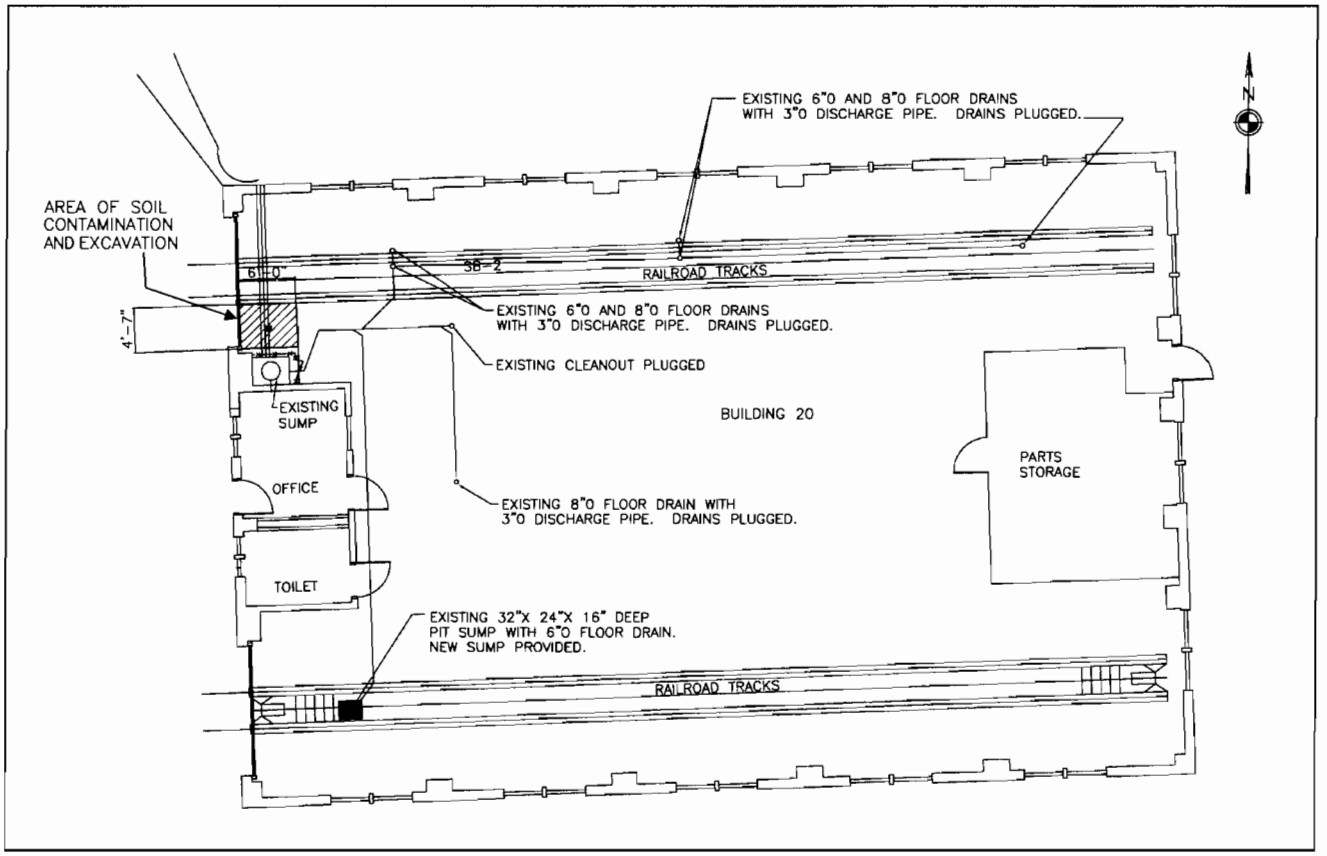


Figure 3: Building 20 Interim Remedial Action

DESCRIPTION OF THE PREFERRED ALTERNATIVE

Institutional controls in the form of land use restrictions for industrial/commercial use is proposed for the Building 20 AOC. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. The transfer documents will contain the following restrictions to ensure that the reuse of the site is consistent with the risk assessment:

- The property will be industrial/commercial use unless permission is obtained from the EPA, NYSDEC, and the New York State Department of Health; and
- The owner or occupant of the property shall not extract, utilize, consume, or permit to be extracted any water from the aquifer below the ground surface within the boundary of the property unless such owner or occupant obtains prior written approval from the New York State Department of Health.

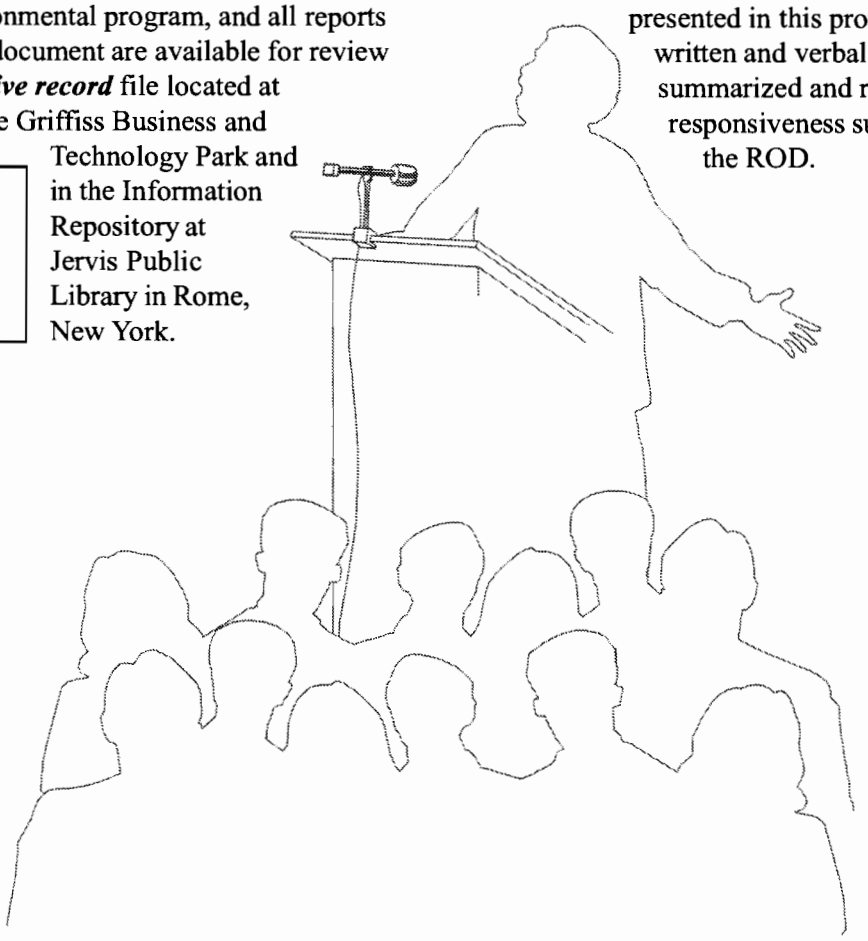
Following the interim remedial action, the majority of the chemicals detected at this AOC do not exceed standards and guidance values and the known source of the groundwater contamination has been removed. In addition, the baseline risk assessment for industrial/commercial use indicates that the levels of contamination present in the soils and groundwater prior to remediation fell within or below EPA's acceptable carcinogenic risk range and pose no noncarcinogenic risk to the utility and construction workers, and just a slight noncarcinogenic risk to the industrial worker from ingestion of groundwater, which is a very unlikely pathway. Therefore, the concentrations of chemicals in the soil and groundwater following the remedial action and the baseline risk assessment demonstrate that the site contaminants pose no current or potential threat to public health or the environment.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to provide institutional controls at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' no further action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the no further action alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 14 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by XXXX X, 2001.

Public Comment Period

The agencies have set a public comment period from XXXX X, 2001, to XXXX X, 2001, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for X:XX pm, XXXXXX, XXXX X, 2001, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Building 20

Problem Identification/ Records Search: 1981

↓

Problem Confirmation and Quantification: 1982

↓

Field Investigation: 1985

↓

Griffiss AFB added to National Priorities List: 1987

↓

Health Assessment: 1988

↓

EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

↓

Griffiss designated for realignment by BRAC: 1993 and 1995

↓

ATSDR Health Assessment: 1995 Addendum: 1996

↓

Remedial Investigation Report Draft-final: December 1996

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Closure Certification Report Draft: February 2000

↓

Institutional Controls Proposed Plan Draft-Final: December 2000

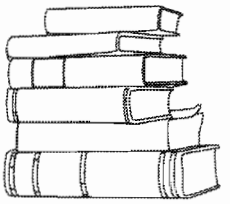
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Institutional Controls Proposed Plan Final: XXXX 2000

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Public Comment Period: XXXX X, 2001 - XXXX X, 2001

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

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Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Building 20 AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Building 20 AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Building 20
AOC at the former
Griffiss AFB,
and to solicit
your comments.

Proposed Plan

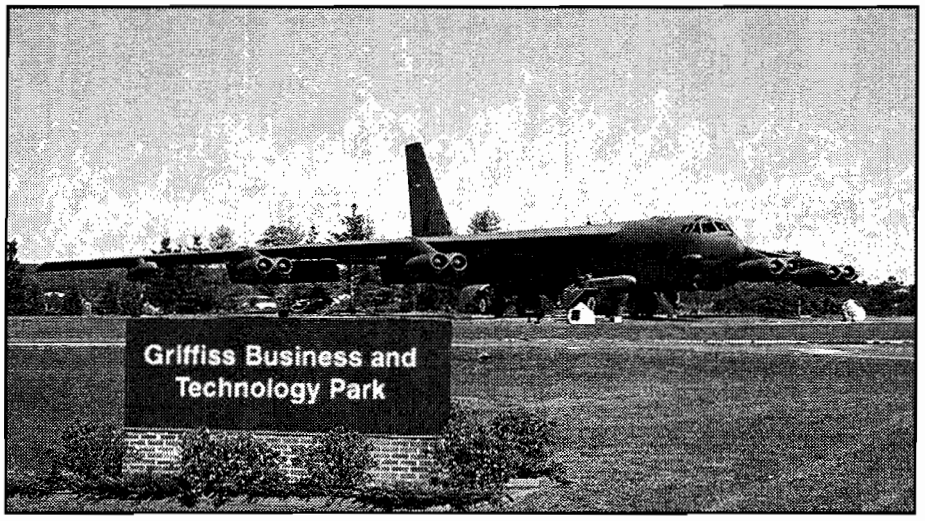
BUILDING 112 AOC

Former Griffiss Air Force Base
Rome, New York
Public Comment Period
XXXXX X, 2001 - XXXXX X, 2001

December 2000

Air Force Recommends No Further Action with Land Use Restrictions at Building 112 Area of Concern

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This ***proposed plan*** is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). The Air Force recommends no further action with land use restrictions for industrial/commercial use at the Building 112 ***Area of Concern***. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use.

The document has been prepared in accordance with public participation requirements of the ***Comprehensive Environmental Response, Compensation, and Liability Act of 1980,*** *as amended,* ***the National Contingency Plan***, and the former Griffiss Air Force Base (AFB) ***Federal Facility Agreement***. In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies."

This plan is intended to elicit public comments on the proposal to take no further action with land use restrictions at the site. The final decision or ***Record of Decision*** will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Building 112 AOC.
- The proposed plan to take no further action with land use restroctions at Building 112 AOC.
- How you can participate in the final decision process for Building 112 AOC.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone.***

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priority List.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world.

On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of AOCs on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a baseline risk assessment; a community relations plan; and an RI report. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The draft Closure Certification Report for Interim Remedial Action was delivered on May 24, 2000.

This proposed plan for no further action with land use restrictions at the Building 112 AOC is based on an evaluation of potential threats to human health and the environment due to contamination in the soil, sediment, and groundwater media and the performance of interim remedial action.

During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs) and sediments. Therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

BUILDING 112 AREA OF CONCERN

Building 112 is the High Power Laboratory located in the central, industrialized area of the former Griffiss AFB (see Figure 1). The following four sites comprise the Building 112 AOC: a drywell, the rooftop transformer spill area, the loading dock area, and the ***PCB*** dump area (see Figure 2).

PCBs
(polychlorinated biphenyls) a group of synthetic organic chemicals with varying harmful effects. Humans come in contact with PCBs by breathing air, ingesting soil or water, and through dermal contact with soil or water containing PCBs.

The drywell was discovered directly adjacent to the east side of Building 112 in 1992 during the construction of a new building entrance. The drywell appeared to be comprised of gravel and is approximately 3 feet by 2 feet in dimension. The depth and use of the drywell is unknown. The area surrounding the drywell is flat and covered by grass.

The Building 112 rooftop transformer area was the location of a transformer rupture and leak. Remedial activities were implemented at this location in 1984.

The loading dock area consists of a paved ramp and surrounding area that leads to the southwest entrance of Building 112. This area was historically used for the storage of PCB containers. The area surrounding the ramp is paved.

The PCB dump area consists of the area between the south wall of Building 112 and beyond a fenced substation south of Building 112. This was an area of reported discharge of PCB fluids in the past. An area on the south side of Building 112 was used until 1994 to store PCB transformers after their removal from service. This location was comprised of a fenced-in gravel area 16 by 44 feet in dimension. Two aboveground storage tanks (ASTs) located adjacent to and east of the transformer storage area, were used to store the PCB insulating oils and are surrounded by a concrete dike.

The topography at the Building 112 AOC is generally flat with less than 5 feet of topographic relief across the site. Groundwater has been encountered at depths ranging from 4 feet to 15 feet BGS and flows south to southwest.

Site soils in the area consist of predominantly brown, silty, fine to coarse sand and gravel.

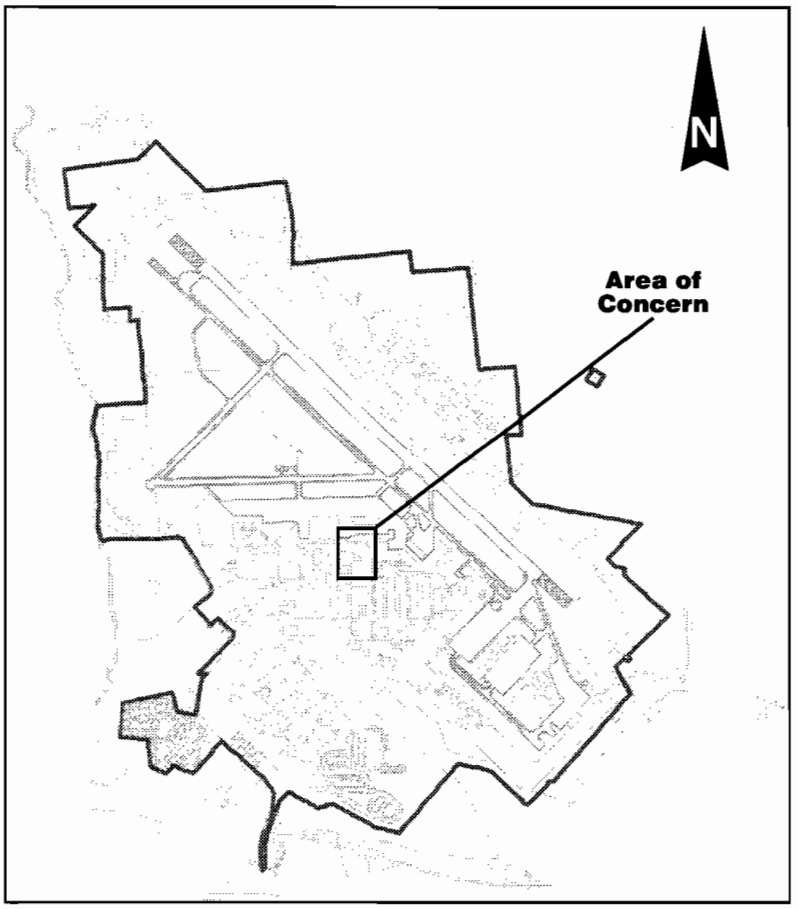
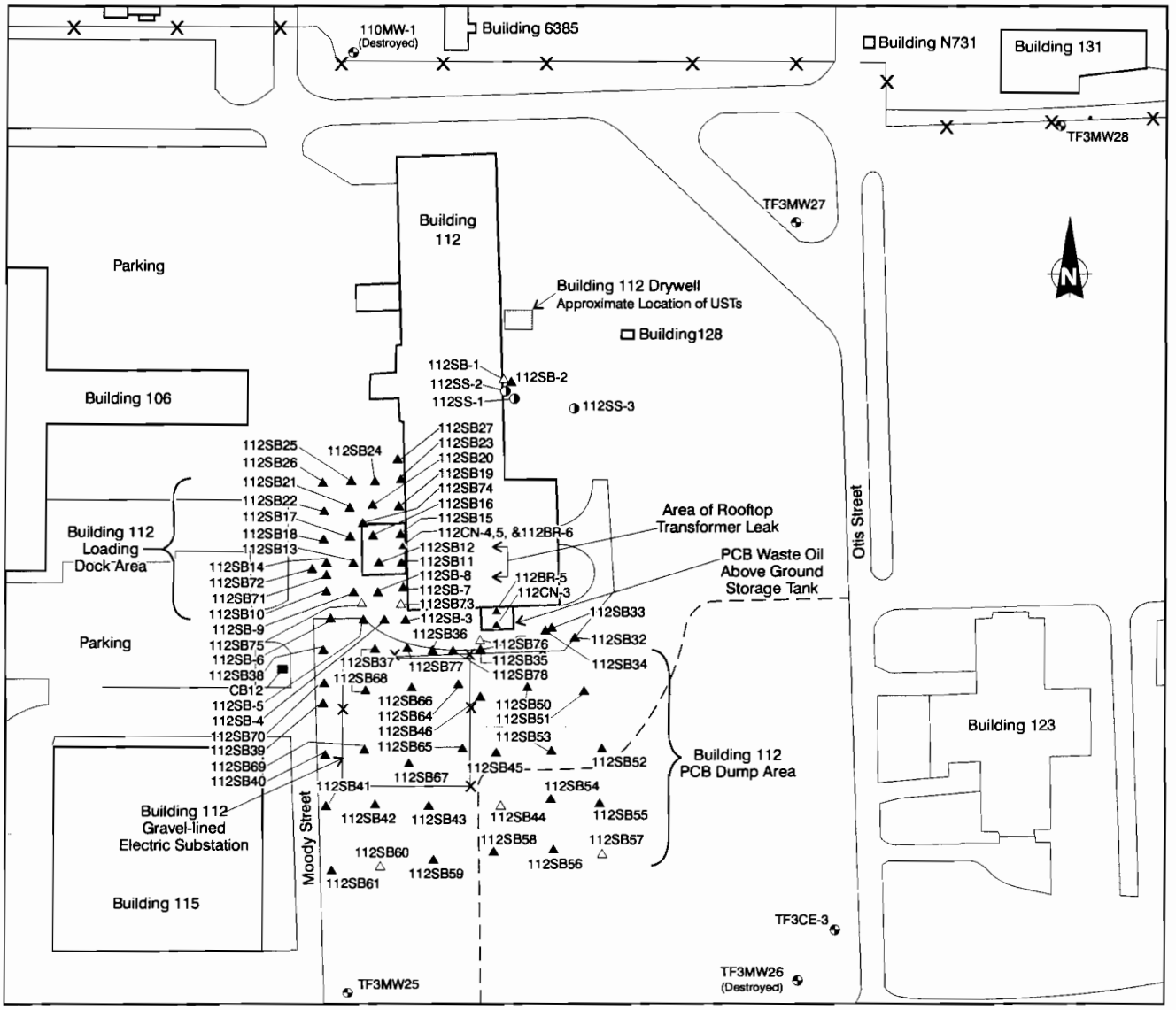


Figure 1: Building 112 AOC is located in the central industrialized portion of the former Griffiss AFB.



SCALE IN FEET

0 50 100 200

LEGEND

- Monitoring Well
- Soil Boring
- Soil Boring/Grab Groundwater Sample
- Surface Soil Sample
- Catch Basin Sample
- Bulk Material Sample (CN - Concrete) (BR - Brick)
- Chain Link Fence

Figure 2: Building 112 AOC

SUMMARY OF SITE ACTIVITIES

In 1994, an RI was performed at the Building 112 AOC. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any remedial action was necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions. RI activities at this AOC included sampling and analysis of soil, groundwater, and sediment at various locations in the four designated areas--drywell, rooftop transformer spill area, loading dock area, and PCB dump area--as described below.

Semivolatile Organic Compounds (SVOCs) a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

Drywell

No previous investigations were performed at the drywell location. RI activities were performed to characterize the drywell and evaluate whether past use of the drywell had resulted in contamination of the environment. Analysis of the surface soil samples at the drywell indicated the presence of 21 ***semivolatile organic compounds***, 11 pesticides/PCBs, and 22 metals. The concentrations of five SVOCs, one pesticide/PCB, and five metals exceeded the most stringent criterion (see Table 1).

Table 1
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 112
SURFACE SOIL SAMPLES (DRYWELL)

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	300 J - 990 J	5/5	224 [a]
Benzo(a)pyrene	240 J - 770 J	5/5	61 [a]
Benzo(b)fluoranthene	290 J - 1,300 J	1/5	1,000 [a]
Chrysene	340 J - 1,100 J	3/5	400 [a]
Dibenzo(a,h)anthracene	42 J - 68 J	3/5	14 [a]
Pesticides/PCBs (µg/kg)			
PCB-1260 (Aroclor 1260)	460	1/3	90 [b]
Metals (mg/kg)			
Cadmium	1.9 -11.6	3/3	1.1 [c]
Copper	30.7 - 89.9	2/3	43 [c]
Lead	75.8 - 225	3/3	36 [c]
Mercury	0.23 J	1/3	0.1 [a]
Zinc	76.2 - 257	2/3	120 [c]

[a] NYS-recommended soil cleanup objective

[b] Proposed RCRA corrective action levels

[c] Background screening concentration

Key:

J = Estimated concentration.*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

Volatile Organic Compounds (VOCs)
a group of organic compounds that have a tendency to vaporize readily.

Analysis of the subsurface soil samples at the drywell indicated the presence of two ***volatile organic compounds***, nine SVOCs, one pesticide/PCB, and 21 metals. The concentrations of two SVOCs, one pesticide/PCB, and four metals exceeded the most stringent criterion (see Table 2).

Loading Dock and PCB Dump Area

Investigations performed in 1981 and 1982 indicated the presence of PCBs in soil surrounding the loading dock area at depths up to 40 inches. The RI expanded upon the previous investigations to evaluate the nature and extent of PCB contamination in this area. No previous investigations had been performed at the PCB dump area prior to the RI.

Table 2
COMPOUNDS EXCEEDING GUIDANCE VALUES
BUILDING 112
SUBSURFACE SOIL SAMPLES (DRYWELL)

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	54 J - 230 J	1/7	224 [a]
Benzo(a)pyrene	170 J	1/7	61 [a]
Pesticides/PCBs (µg/kg)			
PCB-1260 (Aroclor 1260)	7.9 J - 311	1/7	90 [b]
Metals (mg/kg)			
Arsenic	3.1 - 10.2	6/7	4.9 [c]
Lead	3.7 - 139	1/7	36 [c]
Mercury	0.03 J - 0.18	1/7	0.1 [a]
Zinc	45 - 147	1/7	120 [c]

[a] NYS-recommended soil cleanup objective

[b] Proposed RCRA corrective action levels

[c] Background screening concentration

Key:

J = Estimated concentration.*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

SUMMARY OF SITE ACTIVITIES (Cont.)

Analysis of the subsurface soil samples at the loading dock and PCB dump area indicated the presence of seven pesticides/PCBs and 23 dioxins and furans. The concentrations of two pesticides exceeded the most stringent criterion (see Table 3).

Analysis of the sediment sample at the Building 112 loading dock area storm water catch basin indicated the presence of one PCB. The concentration of that PCB exceeded the most stringent criterion (see Table 4).

Bulk material samples (brick and concrete) collected at the loading dock indicated low-level PCB contamination (less than 1 mg/kg). In the PCB dump area, PCB contamination was detected in two bulk material samples at concentrations of 89 mg/kg (brick sample) and 0.37 mg/kg (concrete sample).

Rooftop Transformer Spill Area

Remedial activities performed in this area in 1984 included replacement of the transformer and the concrete pad on the roof; removal, containerization, and disposal of the concrete pad and roofing material; and excavation and disposal of contaminated soil. The RI focused on confirming whether the previous remediation of PCBs at the site was adequate because no confirmatory samples had been collected in 1984.

Bulk material samples collected from the rooftop included gravel, roofing material, brick from the walls, and concrete from the transformer pad. Wipe samples from two roof drains were also collected. PCBs were detected at low levels (less than 1 mg/kg) in 19 of 34 bulk material samples and exceeded 1 mg/kg at two locations on the transformer pad. PCBs were not detected on the wipe samples.

Table 3
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 112
SUBSURFACE SOIL SAMPLES (LOADING DOCK AND PCB DUMP AREA)

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Pesticides/PCBs (µg/kg)			
PCB-1254 (Aroclor 1254)	5.4 J - 1,640	1/235	90 [a]
PCB-1260 (Aroclor 1260)	7.5 J - 19,400	81/234	90 [a]

[a] Proposed RCRA corrective action levels

Key:
J = Estimated concentration.

Table 4
COMPOUNDS EXCEEDING GUIDANCE VALUES
BUILDING 112
SEDIMENT SAMPLES (STORM WATER CATCH BASIN)

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Pesticides/PCBs (µg/kg)			
PCB-1260 (Aroclor 1260)	42	1/1	0.0008 [a] *

[a] NYSDEC, Technical Guidance for Screening Contaminated Sediments; Human Health Bioaccumulation, Fresh water. January, 1999. Expressed as micrograms per gram of organic carbon

* Criterion expressed in terms of µg per gram organic carbon

Groundwater

Seven grab groundwater samples were collected from the Building 112 AOC. One sample was collected from the drywell location, two samples were collected from the loading dock area, and four samples were collected from the PCB dump area. Analysis of the grab groundwater samples at the above locations indicated the presence of four SVOCs, 24 pesticides/PCBs, and 21 metals. The concentrations of one pesticide, and 11 metals exceeded the most stringent criterion (see Table 5). With the exception of several metals, the chemicals detected in the surface and subsurface soils were not detected in the groundwater, indicating that the presence of these compounds is limited to the soil at the site.

High Power Laboratory

There is an ongoing project for the characterization, cleanup, and closure of transformer leak sites in the High Power Laboratory area inside Building 112, which was located in the southern portion of the facility under the Resource Conservation and Recovery Act (RCRA). This cleanup consisted of the removal of approximately 530 square feet of PCB-stained concrete flooring from the first floor of the south bay. The draft closure report was forwarded to NYSDEC for concurrence on June 13, 2000, with the recommendation that two additional rounds of groundwater samples be collected and analyzed. The first round was collected on October 27, 2000, and the analysis indicated nondetect for PCBs for all four wells. The collection of the second round of samples is scheduled for January 2001.

Table 5
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 112
GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Pesticides/PCBs (µg/kg)			
Aldrin	0.002 J - 0.008 J	3/7	ND[a]
Metals (mg/L)			
Aluminum	94.7	1/1	0.05[b]
Barium	2.27	1/1	1[a]
Beryllium	0.0098	1/1	0.003[c]
Chromium	0.139	1/1	0.05[a]
Copper	0.855	1/1	0.2[a]
Iron	289	1/1	0.3[a]
Lead	0.133	1/1	0.015[a]
Magnesium	45.8	1/1	35[d]
Manganese	48.7	1/1	0.05[b]
Nickel	0.284	1/1	0.1[a]
Zinc	1.52	1/1	2[d]

[a] NYSDEC Class GA groundwater standard; June 1998
[b] Federal secondary maximum contaminant level
[c] Federal maximum contaminant level
[d] NYSDEC Class GA groundwater guidance values; June 1998

Key:
J = Estimated concentration
ND = Nondetect

Soil Excavation and Tank Containment Area Demolition

Contaminated soil was excavated from the loading dock area (grassy area and ramp area), parking lot area, tank containment area, and PCB dump area. The tank containment area wall and concrete slab were demolished and the material was stockpiled and properly disposed.

Confirmatory soil samples from the parking lot area and the PCB dump area were below the established cleanup goals and the stockpiled material was properly disposed. Confirmatory samples from the loading dock area and the tank containment area were above the cleanup goals for PCBs (Aroclor 1260) and these areas were overexcavated several times. The final confirmatory samples, which achieved the cleanup goals, were collected from the sidewalls and the bottom of the excavation.

Backfilling of individual excavations only occurred after all confirmatory sample results indicated that cleanup goals were achieved, post excavation surveys were completed, and authorization to backfill was granted. At this time, all additional stockpiled material was removed and transported to a disposal facility.

Concrete Scarification of Transformer Pad

Remedial actions at the rooftop transformer pad included scarification of one inch of concrete from the rooftop transformer rupture area. Confirmation wipe samples were collected and analyzed; all sample results were below the project cleanup goals. The material was properly disposed at a hazardous waste disposal facility.

Concrete Scarification of Foundation Walls

In July 1999, contaminated concrete at specified areas in the loading dock grassy area, ramp area, and tank contaminant area was removed and disposed. This work included the use of specialized equipment to scarify the outer one-eighth inch of concrete and collect the concrete and dust in 55-gallon drums through the use of a vacuum system. Confirmation wipe samples collected after scarification yielded results below the project cleanup goals.

All drums were labeled and sealed and were classified as hazardous waste based on the analytical results of soils excavated from areas directly adjacent to the concrete that was scarified. The concrete was then disposed of as hazardous waste at an appropriate disposal facility.

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the Building 112 AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils, soil gas, sediments, surface water, and groundwater at the site. The results of this assessment and the interim remedial action (see page 14) were considered when formulating the no further action with land use restrictions proposal.

Human Health Risk Assessment

Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Building 112 AOC could pose health risks to individuals under current and proposed future land use. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification—identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment—estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment—determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization—summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soils, sediments, and groundwater at the site were considered chemicals of potential concern with the exception of inorganics detected at concentrations less than twice the mean background concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). As a class, petroleum hydrocarbons were not included as a chemical of concern; however, the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated.

As proposed in the Griffiss Redevelopment Planning Council redevelopment scenario, the current and future land use designations for the Building 112 AOC are industrial/commercial. The human health risk assessment evaluated exposure to potential future industrial, construction, landscape, and utility workers. The various exposure scenarios for each population are described in Table 6. Intake assumptions, which are based on EPA guidance, are more fully described in the RI.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Building 112 AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

Table 6
BUILDING 112 AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

INDUSTRIAL WORKER	CONSTRUCTION WORKER	LANDSCAPE WORKER	UTILITY WORKER
• Ingestion of groundwater • Dermal contact with groundwater (during showering) • Inhalation of VOCs from groundwater (during showering)	• Inhalation of fugitive dust from subsurface soil • Incidental ingestion of subsurface soil • Dermal contact with subsurface soil	• Incidental ingestion of surface soil • Inhalation of fugitive dust from surface soil • Dermal contact with surface soil	• Incidental ingestion of subsurface soil • Inhalation of fugitive dust from subsurface soil • Dermal contact with with subsurface soil

SUMMARY OF SITE RISKS (Cont.)

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. Once either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as the point of departure for determining remediation goals for alternatives.

Results of Site-Specific Health Risk Assessment

Potential risks from exposure to COPCs at the Building 112 AOC were evaluated for industrial, construction, landscape, and utility workers during the RI, prior to the interim remedial action. The potential carcinogenic and noncarcinogenic risks from exposure to surface soil, subsurface soil, and grab groundwater at the Building 112 AOC are summarized below.

Carcinogenic Risk

The total carcinogenic risk associated with exposure to contaminants in monitoring well groundwater by industrial workers is $9x10^{-7}$. This value is below EPA's target risk range. The pathway-specific risks from ingestion and dermal exposure to groundwater were $8x10^{-7}$ and $1x10^{-7}$, respectively.

The total carcinogenic risk associated with exposure by construction workers to subsurface soils is $2x10^{-6}$. This value is within EPA's target risk range. The pathway-specific risks for construction workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were $2x10^{-6}$, $7x10^{-9}$, and $3x10^{-7}$, respectively.

The total carcinogenic risk associated with exposure by landscape workers to surface soil was $1x10^{-5}$. This value is within the EPA's target risk range. The pathway-specific risks for landscape workers from incidental ingestion of soil, inhalation of fugitive dust and dermal contact were $7x10^{-6}$, $1x10^{-7}$, and $6x10^{-6}$, respectively.

The cumulative carcinogenic risk associated with exposure by utility workers to subsurface soil is $2x10^{-6}$. This value is within EPA's target risk range. The pathway-specific risks for utility workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were $1x10^{-6}$, $2x10^{-8}$, and $1x10^{-6}$, respectively.

Noncarcinogenic Risk

The total HI for a landscape worker exposed to surface soil at Building 112 AOC is 0.04.

This is below the benchmark value of 1. Of the three potential exposure pathways, the two greatest potential noncarcinogenic hazards were from incidental ingestion of soil and dermal contact with surface soil.

The total HI for utility workers exposed to subsurface soil at the Building 112 AOC is 0.008, which is below the benchmark value of 1. Of the three potential exposure pathways, the greatest potential noncarcinogenic hazard (0.005) was from the incidental ingestion of subsurface soil.

The total HI for construction workers exposed to subsurface soil at the Building 112 AOC is 0.2 which is below the benchmark value of 1. Of the three potential exposure pathways, the greatest potential noncarcinogenic hazard (0.2) was from the incidental ingestion of soil.

The total HI for industrial workers exposed to grab groundwater is 0.05. This is below the benchmark value of 1. The calculated HIs for ingestion of groundwater and dermal exposure to groundwater were 0.05 and 0.002, respectively.

Uncertainties

Uncertainties exists in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and health-protective assumptions throughout the entire risk assessment, results in an assessment that is protective of human health and the environment. Uncertainties associated with the risk assessment for the Building 112 AOC include (1) The HIs associated with dermal contact with soil were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (2) Chemical samples were collected from areas of known contamination which can result in a biased data set that may overestimate risk; (3) Construction at the site was assumed to occur over a one year period. Since construction may take less time to complete, this would result in an overestimation of risk; (4) It was assumed that groundwater would be used for industrial purposes in the future, however, this is unlikely since the site has ready access to the existing water supplies at the former base and in the City of Rome. This would result in an overestimation of risk; and (5) Toxicological criteria were not available for all chemicals found at the site, which may result in an underestimation of risk.

Ecological Risk Assessment

A baseline ecological risk assessment at the Building 112 AOC was conducted during the RI. The assessment modeled risks to the short-tailed shrew and raccoon through exposure to surface soil by ingestion and bioaccumulation through the food chain. Hazard quotients were calculated for each of the indicator species. For the raccoon, the hazard quotients calculated were each less than 1 with the greatest value for 2,3,7,8-TCDD (HQ = 0.0076). For the short-tailed shrew, three of the HQs were greater than 1; 2,3,7,8-TCDD (HQ = 4.3), cadmium (HQ = 1.4), and lead (HQ = 1.1). These values indicate a potential risk for adverse effects.

Modeling of bioaccumulation to higher order species was not performed, nor was the cumulative effect of multiple contaminants considered; this tends to underestimate the risk to ecological receptors.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

INTERIM REMEDIAL ACTION

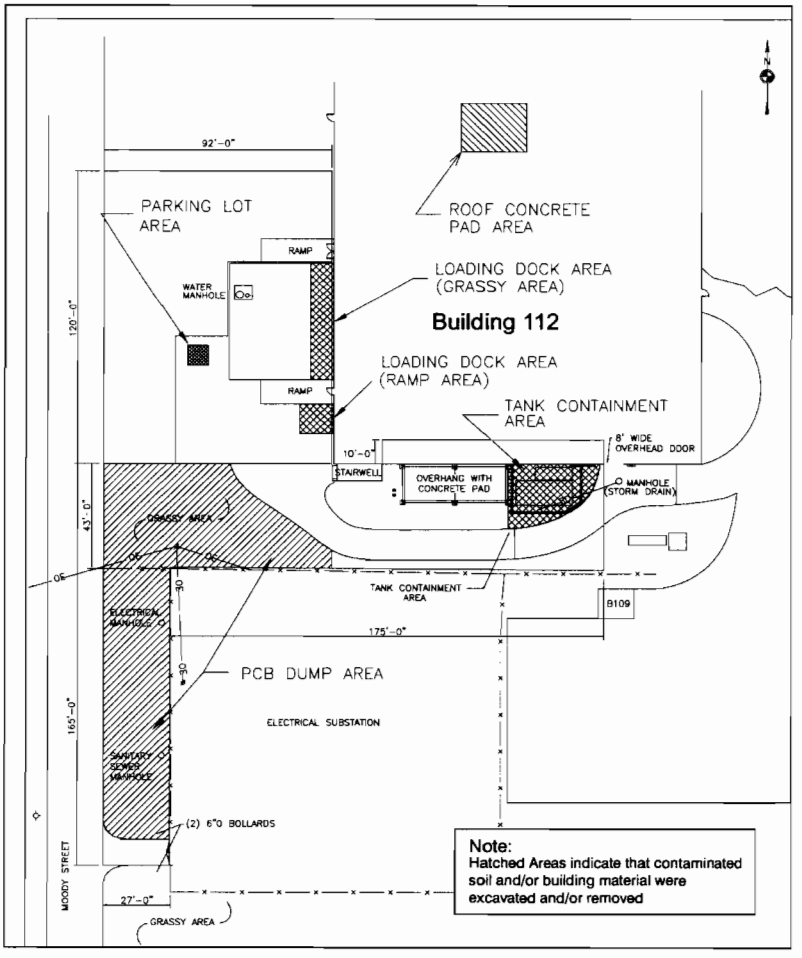
In 1998 and 1999, following the RI and baseline risk assessment, interim remedial action was performed at the Building 112 AOC. The work consisted primarily of soil excavation, confirmation sampling, transportation and off-site disposal of excavated materials, backfilling, restoration of grass, asphalt and concrete areas, scarification, and masonry demolition and repair. Each area of the Building 112 AOC was remediated individually so that all contaminated material would be segregated into its own stockpile. A brief summary of the remedial actions is provided below.

Soil Excavation and Tank Containment Area Demolition

Remedial action work activities began on July 15, 1998. Equipment was mobilized, work zones were established, and excavation was begun in three separate locations: the loading dock grassy area, the loading dock ramp area, and the parking lot area. On the following day, contaminated soil from the PCB dump area was excavated. On July 22, 1998 the demolition of the tank containment area wall and concrete slab began and the excavation of the west side of the parking lot area was extended by an additional five feet. The excavation of soil from the tank containment area was completed on July 27, 1998. Results from confirmatory samples obtained from the loading dock grassy area, loading dock ramp area, and tank containment area were above cleanup limits and these areas were over-excavated on August 5, 1998. New confirmatory samples were obtained for the new depths and sidewalls of the over-excavations. Based on confirmatory sample results that were above cleanup limits, the loading dock grassy area was over-excavated four additional times throughout September and October, 1998. The loading dock ramp area was over-excavated twice, once in September and once in October,1998.

Confirmatory samples were taken after the removal action was completed to verify the effectiveness of this interim remedial action. The results of the confirmatory soil samples were compared to the project cleanup goals of no greater than 1 ppm PCB from 0 to 1 foot BGS and no greater than 10 ppm PCBs at a depth greater than 1 foot. The results were acceptable and the project goals were met. The excavated areas were then backfilled with clean material.

On September 22 and 23, 1998 the excavated materials from the parking lot area and PCB dump area were loaded and transported to Seneca Meadows Landfill for disposal. The remaining stockpiled material from the parking lot area and PCB dump area was loaded and transported to Seneca Meadows Landfill for disposal on October 14, 1998. The total estimated volume of non-hazardous materials excavated and disposed from the PCB dump area and parking lot area were 163.8 and 39.3 cubic yards, respectively.



Building 112 Interim Remedial Action

The non-hazardous stockpiled material initially excavated from the tank containment area was loaded and transported to Seneca Meadows Landfill for disposal on October 23 and 26, 1998. The total estimated volume of initial non-hazardous soil excavated from the tank containment area was 14.2 cubic yards. Based on analytical results, the demolished tank containment area retaining wall was loaded and transported to Oneida-Herkimer Solid Waste Authority and disposed of as construction and demolition debris on October 29, 1998.

On July 6 and 7, 1999 the hazardous stockpiled material from the loading dock areas (grassy and ramp) and the tank containment area was loaded and transported to CWM Chemical Services for disposal. A portion of the brick wall removed from the tank containment area was also transported and disposed of at CWM Chemical Services. The total volume of hazardous materials excavated and disposed from the loading dock grassy area, loading dock ramp area, and tank containment area were 87.4, 63.5, and 21.3 cubic yards, respectively.

Concrete Scarification of Transformer Pad

The roof top transformer pad was prepared for scarification on July 23,1998. One inch of concrete from the rooftop transformer rupture area was scarified and stockpiled. Confirmation wipe samples were collected and analyzed; all sample results were below the project cleanup goals. The stockpiled material was classified as PCB TSCA regulated waste and was disposed of at CWM Chemical Services on July 6 and 7, 1999.

Concrete Scarification of Foundation Walls

On July 12 and 13, 1999 contaminated concrete at specified areas in the loading dock grassy area, loading dock ramp area, and the tank containment area were removed. Specialized cutting equipment operating under shrouds, vacuum equipment, and filters were used to scarify one-eighth of an inch of concrete and collect the concrete chips and dust in 55-gallon drums. The filters, hoses, and shrouds used during the scarification were disposed of in the drums containing the concrete chips and dust. The drums were labeled, sealed, and classified as hazardous waste based upon the analytical results of soils excavated from areas directly adjacent to the concrete that was scarified. The drums were later disposed of at CWM Chemical Services on September 28, 1999.

DESCRIPTION OF THE PREFERRED ALTERNATIVE

No further action for soils with land use restrictions for industrial/commercial use is proposed for the Building 112 AOC. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. The transfer documents will contain the following restrictions to ensure that the reuse of the site is consistent with the risk assessment:

- The property will be industrial/commercial use unless permission is obtained from the EPA, NYSDEC, and the New York State Department of Health; and
- The owner or occupant of the property shall not extract, utilize, consume, or permit to be extracted any water from the aquifer below the ground surface within the boundary of the property unless such owner or occupant obtains prior written approval from the New York State Department of Health.
- The owner or occupant of the property is restricted from relocating soil in the area during any construction activities. Soil below the clean fill must remain on site (and stay covered while stockpiled) and be covered by a minimum of twelve (12) inches of clean fill.

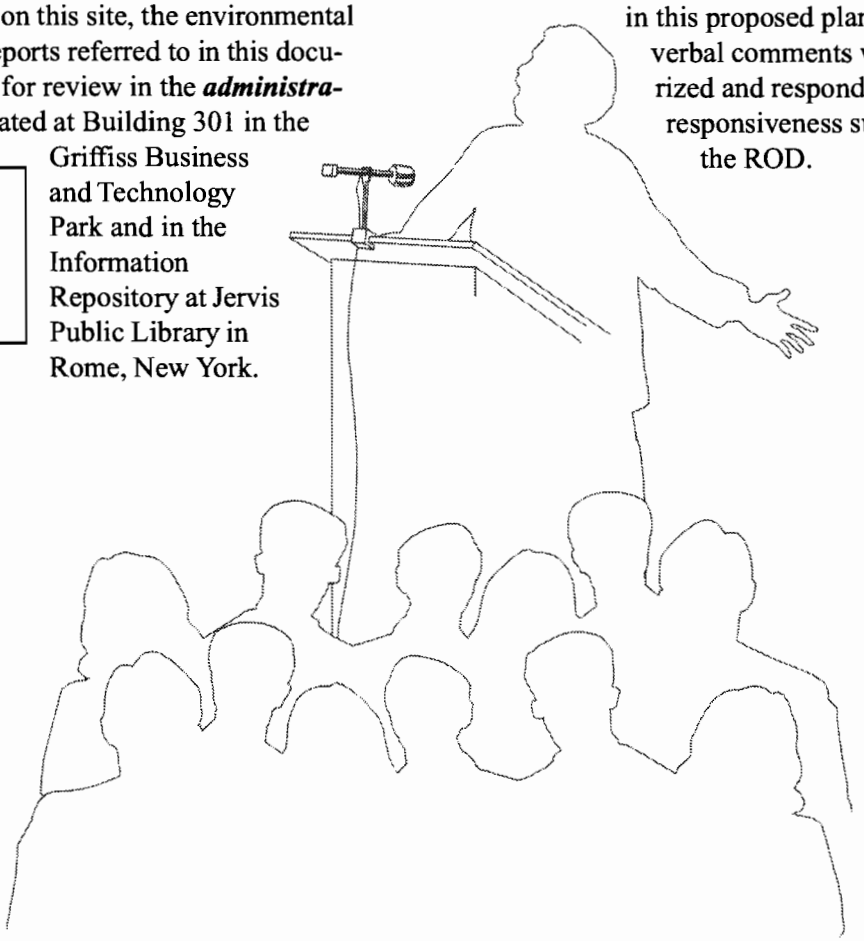
Following the interim remedial action, the majority of the chemicals detected at this AOC do not exceed standards and guidance values and the known source of the groundwater contamination has been removed. In addition, the baseline risk assessment for industrial/commercial use indicates that the levels of contamination present in the soils and groundwater prior to remediation fell within or below EPA's acceptable carcinogenic risk range and pose no noncarcinogenic risk to the industrial, construction, landscape, or utility workers. Therefore, the concentrations of chemicals in the soil and groundwater following the remedial action and the baseline risk assessment demonstrate that the site contaminants pose no current or potential threat to public health or the environment.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take no further action with land use restrictions at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' remedial action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the preferred alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 18 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by XXXX X, 2001.

Public Comment Period

The agencies have set a public comment period from XXXX X, 2001, to XXXX X, 2001, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for X:XX pm, XXXXXX, XXXX X, 2001, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Building 112

Problem Identification/ Records Search: 1981

|

Problem Confirmation and Quantification: 1982

|

Field Investigation: 1985

|

Griffiss AFB added to National Priorities List: 1987

|

Health Assessment: 1988

|

EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

|

Griffiss designated for realignment by BRAC: 1993 and 1995

|

ATSDR Health Assessment: 1995 Addendum: 1996

|

Remedial Investigation Report Draft-Final: December 1996

|

Closure Certification Report Draft: February 2000

|

No Further Action with Land Use Restrictions Proposed Plan Draft-Final: December 2000

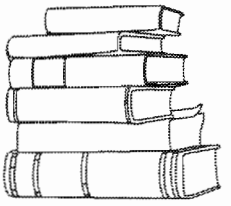
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No Further Action with Land Use Restrictions Proposed Plan Final: XXXXX 2000

|

Public Comment Period: XXXX X, 2001 - XXXX X, 2001

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

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Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Building 112 AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Building 112 AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Building 112
AOC at the former
Griffiss AFB,
and to solicit
your comments.

Proposed Plan

BUILDING 222 AOC

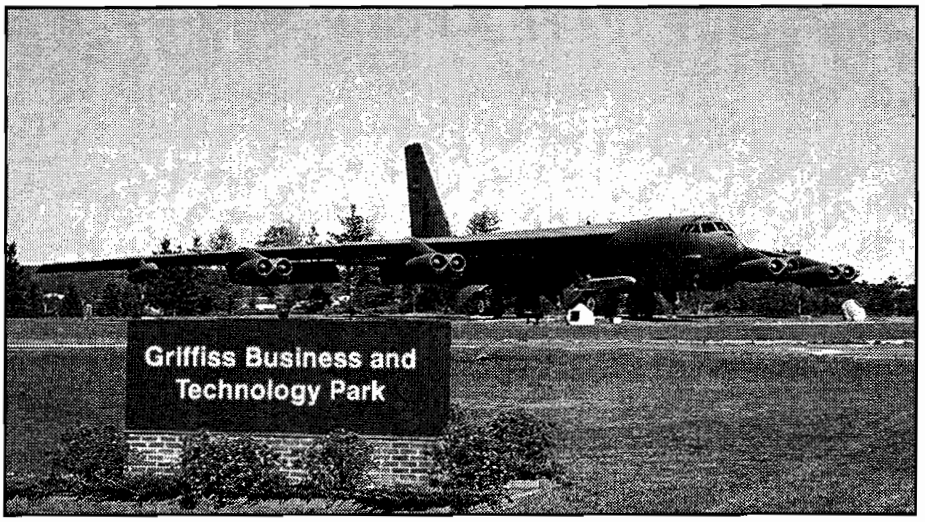
Former Griffiss Air Force Base
Rome, New York

Public Comment Period
XXXXX X, 2001 - XXXXX X, 2001

December 2000

Air Force Recommends No Further Action for Soils with Land Use Restrictions at Building 222 Area of Concern

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This ***proposed plan*** is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). The Air Force recommends no further action for soils with land use restrictions for industrial/commercial use at the Building 222 ***Area of Concern.*** Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. Groundwater at the Building 222 AOC is being further evaluated as part of the On Base Groundwater AOC Tin City operable unit.

The document has been prepared in accordance with public participation requirements of the ***Comprehensive Environmental Response, Compensation, and Liability Act of 1980,*** *as amended,* ***the National Contingency Plan***, and the former Griffiss Air Force Base (AFB) ***Federal Facility Agreement.*** In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies."

This plan is intended to elicit public comments on the proposal to take no further action for soils with land use restrictions at the site. The final decision or ***Record of Decision*** will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Building 222 AOC.
- The proposed plan to take no further action for soils with land use restrictions at Building 222 AOC.
- How you can participate in the final decision process for Building 222 AOC.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level.

Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone***.

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priority List.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of ***Areas of Concern*** on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling analysis plan and a quality assurance project plan; and a baseline risk assessment; a community relations plan; and an RI report. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The draft Closure Certification Report for Interim Remedial Action was delivered on May 24, 2000.

This proposed plan for no further action for soils with land use restrictions is based on an evaluation of potential threats to human health and the environment due to contamination in the soil and groundwater, and the performance of interim remedial actions at the Building 222 AOC.

During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

BUILDING 222 BATTERY ACID DISPOSAL PIT AREA OF CONCERN

Building 222 was located in the west-central portion of the base (see Figure 1). This building was the former truck maintenance facility and entomology laboratory, and is located in an industrial complex referred to informally as "Tin City". A battery acid disposal pit (BADP) was located inside the building in the truck bay area of the building (see Figure 2). The pit was an opening approximately 2 square feet in the concrete floor that was covered with a steel grate. Baking soda-neutralized battery acids were discharged into the BADP from the 1940s to 1984.

Site surface soils consist of dark brown, fine to medium grained sand with gravel to a depth of 2 feet below ground surface (BGS). Subsurface soils consist of brown, fine to medium sandy silt with gravel.

Building 222 is located on an area of the base that is topographically level, with less than 2 feet of relief occurring in the surrounding area. Building 222 is not located near major natural surface water drainage features. Runoff from the site is channeled into the base storm drain system, which discharges to the New York State Barge Canal via Three-Mile Creek. Groundwater flow is toward the south-southeast.

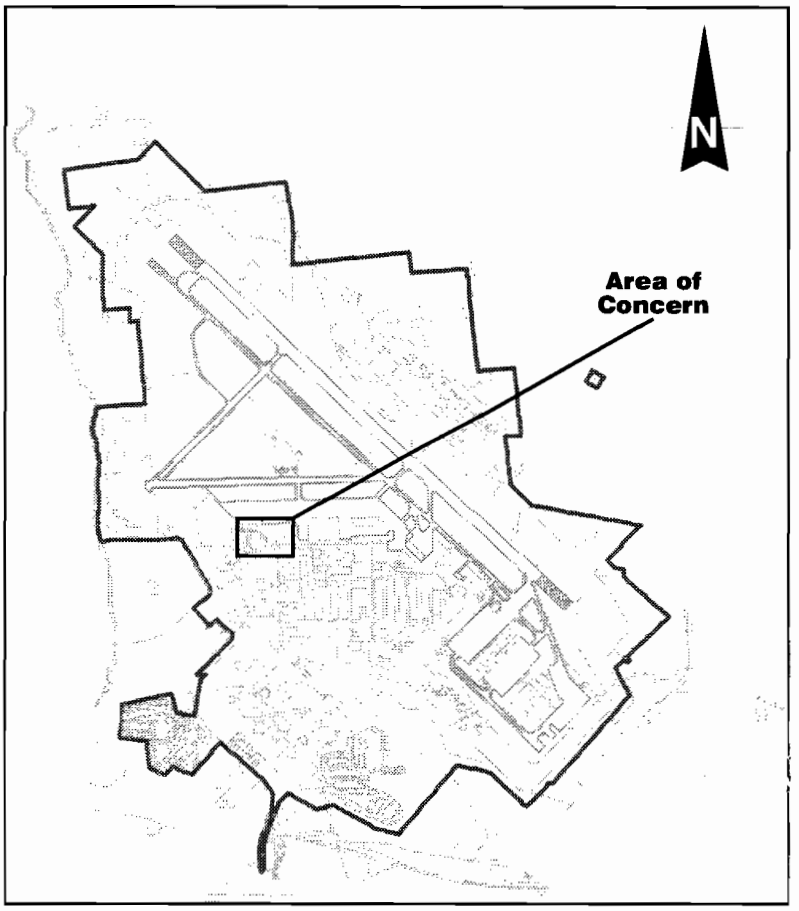


Figure 1: Building 222 AOC is located in the west-central portion of the former Griffiss AFB.

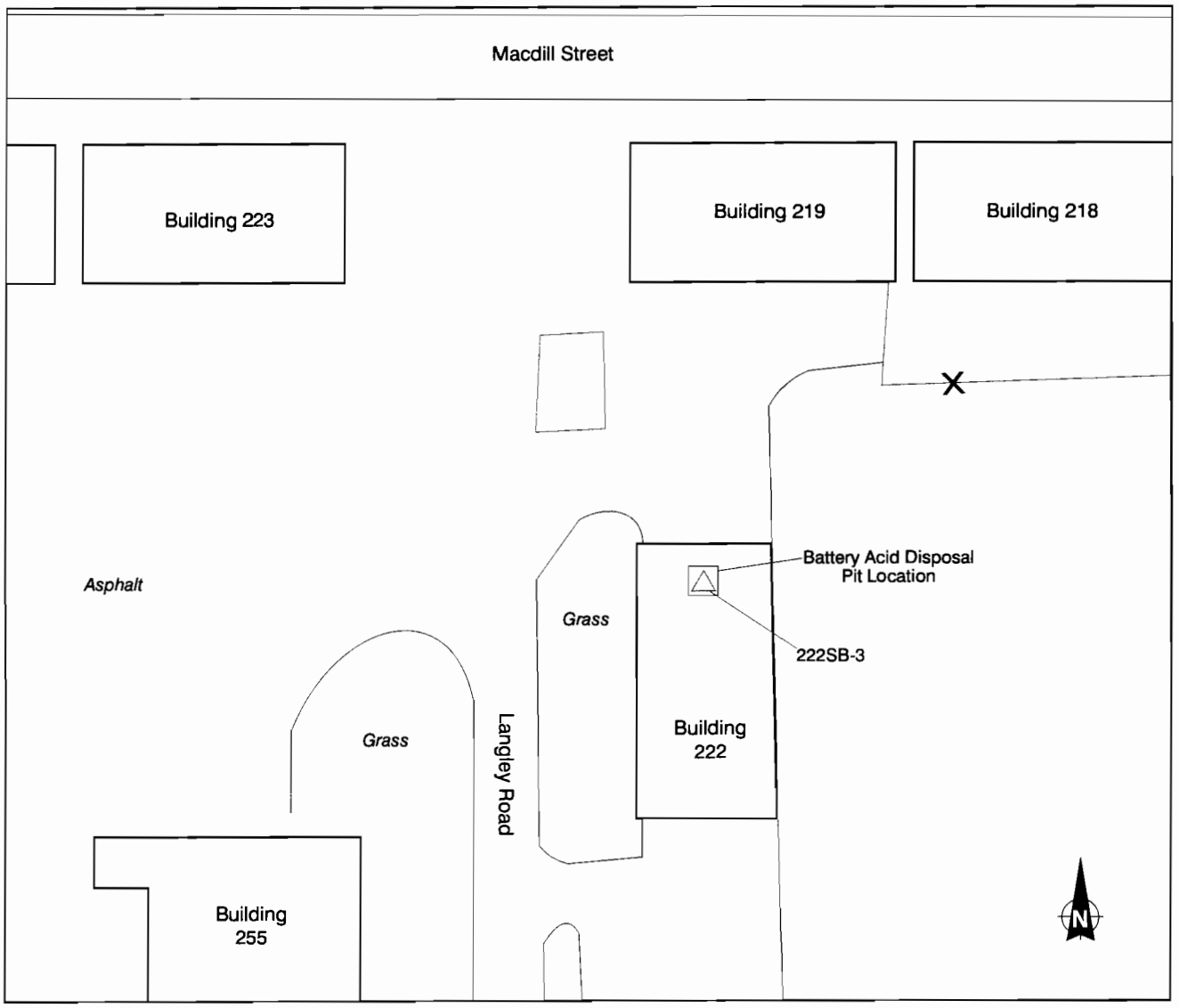


Figure 2: Building 222 AOC

SUMMARY OF SITE ACTIVITIES

Investigations

In 1985, grab samples of residual surface sludge were taken by the Air Force. Elevated concentrations of metals were detected and the contaminated soil was removed. In a later investigation of the BADP, soil borings were installed through the pit to a depth of 12 feet. The material encountered during boring installation consisted of battery sludge of a "greenish-gray sandy texture" to a depth of 10 feet. Natural soil was encountered from 10 to 12 feet. Samples results indicated the presence of lead, copper, zinc, and antimony at elevated concentrations; however, the levels dropped abruptly below 2 feet and tended to decrease with depth. The contaminated soils were removed and the pit was covered with concrete in 1985.

In 1994, an RI was performed. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any remedial action was necessary to prevent potential threats to human health and the environment. The RI included the drilling of one deep soil boring and the sampling and analysis of six soil samples collected from the soil boring at 2-foot intervals from the ground surface to boring completion (18 feet BGS); and one grab groundwater sample.

Analysis of the grab groundwater samples indicated the presence of one ***volatile organic compound***, five ***semivolatile organic compounds***, and 20 metals. Cyanide was also detected in the groundwater at Building 222 but did not exceed potential groundwater ARARs or twice the detected background concentration. The sample was also analyzed for ***PCBs*** and none were detected. The concentrations of 12 metals exceeded potential ARARs in the grab groundwater sample (see Table 1).

Analysis of the soil samples collected during the RI indicated the presence of one VOC, 20 SVOCs, six pesticides, and 10 metals. The concentrations of three SVOCs, two pesticides/PCBs, and 13 metals exceeded potential TBCs or background screening concentrations (see Table 2).

Volatile Organic Compounds (VOCs)
a group of organic compounds that have a tendency to vaporize readily.

Semivolatile Organic Compounds (SVOCs)
a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

PCBs
(polychlorinated biphenyls) a group of synthetic organic chemicals with varying harmful effects. Humans come in contact with PCBs by breathing air, ingesting soil or water, and through dermal contact with soil or water containing PCBs.

Table 1
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 222 AOC
GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Metals (mg/L)			
Aluminum	162	1/1	0.05 [a]
Arsenic	0.07	1/1	0.025 [b]
Beryllium	0.008	1/1	0.003 [c]
Cadmium	0.052	1/1	0.005 [b]
Chromium	0.28	1/1	0.05 [b]
Copper	0.9	1/1	0.2 [b]
Iron	420	1/1	0.3 [b]
Lead	0.096	1/1	0.015 [d]
Manganese	24.9	1/1	0.05 [a]
Nickel	0.58	1/1	0.1 [b]
Sodium	56.3	1/1	20 [b]
Zinc	4.1	1/1	2 [c]

[a] Federal secondary maximum contaminat level
[b] NYSDEC Class GA groundwater standard; June 1998
[c] NYSDEC Class GA groundwater guidances; June 1999
[d] Federal primary maximum contaminat level

Key:
J = Estimated concentration
ND = Non detect

Table 2
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 222 AOC
SUBSURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)pyrene	700 J	1/6	61 [a]
Benzoic acid	31,000	1/6	2,700 [a]
Chrysene	120 J - 1,500 J	1/6	400 [a]
Pesticides/PCBs (µg/kg)			
Dieldrin	320 J	1/6	44 [a]
Heptachlor epoxide	120 J	1/6	20 [a]
Metals (mg/kg)			
Antimony	3.5 - 1,460	2/6	3.4 [b]
Arsenic	2.9 21 J	4/6	4.9 [b]
Cadmium	2.5 - 3	2/6	1.1 [b]
Total chromium	11.1 - 40.7	3/6	22.6 [b]
Copper	44.6 J - 152 J	6/6	43 [b]
Lead	21.4 - 11,500	5/6	36 [b]
Mercury	0.11 J - 1.7 J	4/6	0.1 [a]
Zinc	50.6 J - 446 J	2/6	120 [b]

[a] NYS-recommended soil cleanup objective

[b] Background screening concentration

Key:

J = Estimated concentration*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the Building 222 AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils, soil gas, sediments, surface water, and groundwater at the site. The results of this assessment and the interim remedial action (see page 10) were considered when formulating this no further action proposal for soils with land use restrictions.

Human Health Risk Assessment

Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Building 222 AOC could pose health risks to individuals under current and proposed future land use. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification—identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment—estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment—determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization—summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soils, and groundwater at the site were considered chemicals of potential concern with the exception of inorganics detected at concentrations less than twice the mean background

SUMMARY OF SITE RISKS (Cont.)

concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). As a class, petroleum hydrocarbons were not included as a chemical of concern; however, the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated.

The current land use designation for the Building 222 AOC is industrial. In accordance with the Griffiss Redevelopment Planning Council redevelopment scenario, the future land use designation is commercial/ administrative. The human health risk assessment evaluated exposure to potential current and future occupational workers (current and future utility, construction, and industrial workers that may be exposed to chemicals detected in the site media). The various exposure scenarios for each population are described in Table 3. Intake assumptions, which are based on EPA guidance, are more fully described in the RI.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Building 222 AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. Once either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as the point of departure for determining remediation goals for alternatives.

Table 3
BUILDING 222 AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

UTILITY AND CONSTRUCTION WORKERS	INDUSTRIAL WORKER
• Incidental ingestion of subsurface soil	• Ingestion of groundwater
• Inhalation of fugitive dust from subsurface soil	• Dermal contact with groundwater
• Dermal contact with subsurface soil	• Inhalation of VOCs from groundwater

Results of Site-Specific Health Risk Assessment

Potential risks from exposure to COPCs at the Building 222 AOC were evaluated for utility, construction, and industrial workers during the RI, prior to the interim remedial action. The potential carcinogenic and noncarcinogenic risks from exposure to subsurface soil and groundwater are summarized below.

Carcinogenic Risk

The total carcinogenic risk associated with exposure by utility workers to subsurface soil is 4×10^{-6}, which is within the EPA's target risk range. The pathway specific risks for utility workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were 2×10^{-6}, 2×10^{-9}, and 2×10^{-6}, respectively.

The total carcinogenic risk associated with exposure by construction workers to subsurface soil was 3×10^{-6}, which is within the EPA's target risk range. The pathway specific risks for construction workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were 3×10^{-6}, 5×10^{-10}, and 4×10^{-7}, respectively.

The total carcinogenic risk associated with exposure by industrial workers to contaminants in groundwater was 3×10^{-6}, which is within the EPA's target risk range. The pathway specific risks for industrial workers from incidental ingestion, inhalation of volatiles released from groundwater, and dermal exposure to groundwater were 3×10^{-6}, 2×10^{-9}, and 2×10^{-8}, respectively.

Noncarcinogenic Risk

The total HI for potential utility workers exposed to subsurface soil was 0.6. This cumulative HI is below the acceptable level of 1.

The total HI calculated for potential construction workers exposed to subsurface soil was 20. The calculated HIs for incidental ingestion, dermal contact and inhalation of fugitive dust were 20, 0.06, and 0.001 respectively. Antimony was the greatest risk contributor via the incidental ingestion of soil pathway with a hazard quotient of 17.

The cumulative HI for potential industrial workers exposed to grab ground water was 0.02. This HI is below the acceptable level of 1.

Toxicity values were not available for several contaminants, including 2-ethylnaphthalene, acenaphthylene, benzo(g,h,i)peryline, phenanthrene, and lead, and, therefore, the risk arising from exposure to these compounds was assessed qualitatively. The concentrations of 2-methylnaphthalene, acenaphthylene, benzo(g,h,i)peryline, phenanthrene are all below the most stringent criteria. Lead was detected at concentrations above the most stringent criterion and is classified as a B2 carcinogen (probable human carcinogen). Possible exposures to the site concentrations of these compounds are unlikely to pose a health hazard for occupational receptors potentially performing intrusive activities at this site with the exception of lead. Continuous exposure to lead is expected to cause adverse health effects.

The results of the human health baseline risk assessment indicated that there was a potentially unacceptable risk to occupational receptors from exposure to lead in soils at the Building 222 AOC and a potentially unacceptable risk to the construction work via ingestion of soil. Quantitative evaluation of risk is subject to several conservative assumptions and should not be considered an absolute measure of risk.

Groundwater at the Building 222 AOC is being further evaluated under the On Base Groundwater AOC as part of the Tin City operable unit.

Uncertainties

Uncertainties exists in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and health-protective assumptions throughout the entire risk assessment, results in an assessment that is protective of human health and the environment. Uncertainties associated with the risk assessment for the Building 112 AOC include (1) The HIs associated with dermal contact with soil were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (2) Chemical samples were collected from areas of known contamination which can result in a biased data set that may overestimate risk; (3) Construction at the site was assumed to occur over a one year period. Since construction may

take less time to complete, this would result in an overestimation of risk; (4) Toxicological criteria were not available for all chemicals found at the site, which may result in an underestimation of risk; (5) Construction at the site was assumed to occur over a one year period. Since construction may take less time to complete this would result in an overestimation of risk; and (6) It was assumed that groundwater would be used for industrial purposes in the future, however, this is unlikely since the site has ready access to the existing water supplies at the former base and in the City of Rome. This would result in an overestimation of risk.

Ecological Risk Assessment

A baseline risk assessment for ecological receptors at the Building 222 AOC was conducted during the RI. The assessment modeled risks to raccoons and short-tailed shrews to exposures to surface soil in the event that a proposed future land use is open space. The HQs indicative of risks to the raccoon and the short-tailed shrew were calculated to be below 1; therefore, the potential for adverse effects to this terrestrial ecological receptor is considered to be insignificant.

Modeling of bioaccumulation to higher order species was not performed, nor was the cumulative effect of multiple contaminants considered; this tends to underestimate the risk to ecological receptors.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

INTERIM REMEDIAL ACTION

In 1998, following the RI and baseline risk assessment, an interim remedial action was performed in which the additional contaminated soils that remained in the subsurface soils beneath the north central portion of the floor were removed (see Figure 3). The work consisted primarily of saw cutting and removal of concrete, excavation of contaminated subsurface soils, confirmation sampling, transportation and off-site disposal of excavated materials, backfilling and concrete restoration. A brief summary of this remedial action is provided below.

Remedial action work activities began on July 27, 1998. Equipment was mobilized, work zones were established, and the floor was saw cut. The concrete was removed and the BADP was excavated and stockpiled on a bermed liner. Confirmatory samples were collected from all four walls and the base of excavation. Confirmatory sample results indicated that the base sample and east sidewall of the excavation exceeded cleanup goals. On August 13, 1998 an additional foot of material was over-excavated from the base of the excavation and east sidewall.

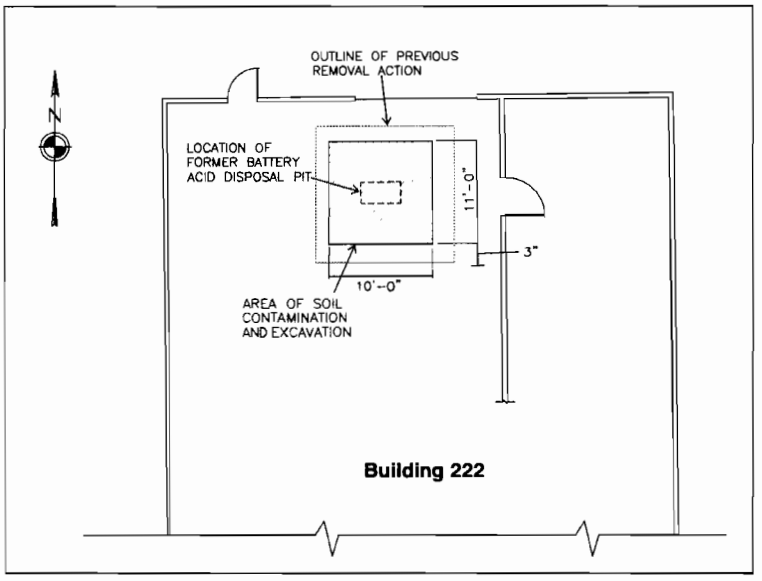


Figure 3: Building 222 AOC Interim Remedial Action

This material was added to the original stockpile. Confirmatory samples were collected from the base and east sidewall after the over-excavation was complete. Based on confirmatory sample results, an additional 1 foot of material was excavated from the base of the excavation on September 3, 1998 and added to the original stockpile. An additional confirmatory sample was collected from the base of the excavation. The total estimated volume excavated, stockpiled, and disposed from the Building 222 AOC was 45.8 cubic yards of soil.

Confirmatory samples were taken after the removal action was completed to verify the effectiveness of this interim remedial action. The results of the confirmatory soil samples were compared to the project cleanup goals and NYSDEC TAGM 4046 guidance values. The confirmatory sample results were acceptable and the project goals were met. After the project goals were met, the excavated area was backfilled with clean material and the concrete floor slab replaced.

On October 16, 1998, the stockpiled material was loaded for transport to Seneca Meadows for disposal.

DESCRIPTION OF THE PREFERRED ALTERNATIVE

No further action for soils with land use restrictions for industrial/commercial use with five-year reviews to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use is proposed for the Building 222 AOC. The transfer documents will contain the following restrictions to ensure that the reuse of the site is consistent with the risk assessment:

- The property will be industrial/commercial use unless permission is obtained from the EPA, NYSDEC, and the New York State Department of Health; and
- The owner or occupant of the property shall not extract, utilize, consume, or permit to be extracted any water from the aquifer below the ground surface within the boundary of the property unless such owner or occupant obtains prior written approval from the New York State Department of Health.

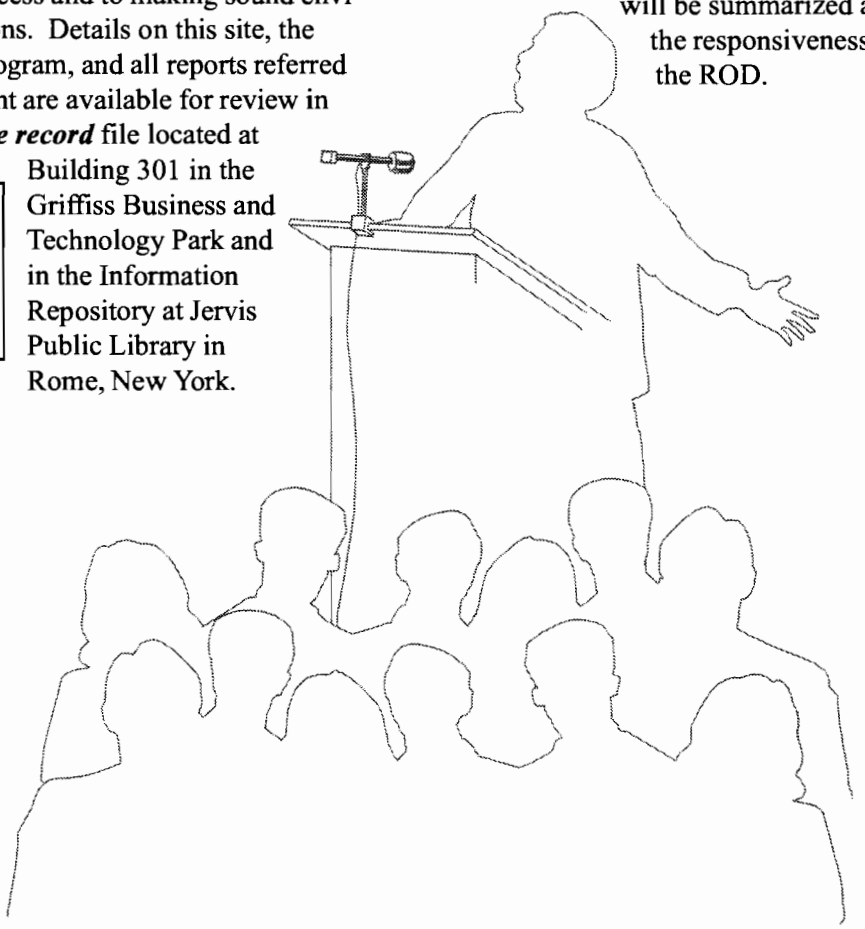
Following the interim remedial action, the majority of the chemicals detected at this AOC do not exceed standards and guidance values and the known source of the groundwater contamination has been removed. In addition, the baseline risk assessment for industrial/commercial use indicates that the levels of contamination present in the soils prior to remediation fell within or below EPA's acceptable carcinogenic risk range and posed a potential noncarcinogenic risk to occupational workers, which was negated by the interim removal action. Therefore, the concentrations of chemicals in the soil following the remedial action and the baseline risk assessment demonstrate that the site contaminants pose no current or potential threat to public health or the environment. Groundwater at the Building 222 AOC is being further evaluated as part of the On Base Groundwater AOC Tin City operable unit.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take no further action for soils with land use restrictions at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' remedial action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the preferred alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 14 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by XXXX X, 2001.

Public Comment Period

The agencies have set a public comment period from XXXX X, 2001, to XXXX X, 2001, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for X:XX pm, XXXXXX, XXXX X, 2001, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Building 222

Problem Identification/ Records Search: 1981

↓

Problem Confirmation and Quantification: 1982

↓

Field Investigation: 1985

↓

Griffiss AFB added to National Priorities List: 1987

↓

Health Assessment: 1988

↓

EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

↓

Griffiss designated for realignment by BRAC: 1993 and 1995

↓

ATSDR Health Assessment: 1995 Addendum: 1996

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Remedial Investigation Report Draft-Final: December 1996

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Closure Certification Report Draft: February 2000

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No Further Action for Soils with Land Use Restrictions Proposed Plan Draft-Final: December 2000

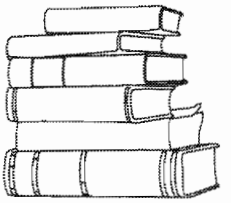
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No Further Action for Soils with Land Use Restrictions Proposed Plan Final: XXXX 2001

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Public Comment Period: XXXX X, 2001 - XXXX X, 2001

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency, Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

fold here, please use only clear tape to seal

Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Building 222 AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Building 222 AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Building 222
AOC at the former
Griffiss AFB,
and to solicit
your comments.

Proposed Plan

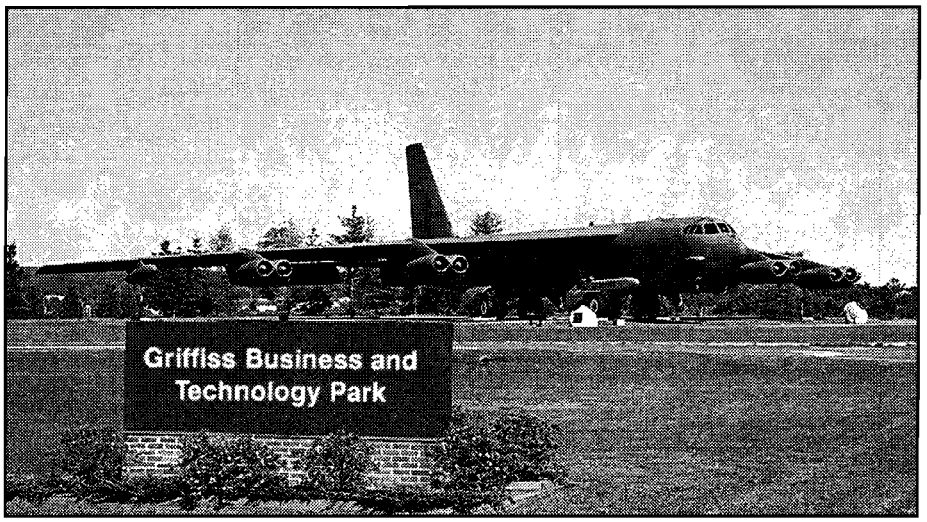
BUILDING 255 DRYWELLS AOC

Former Griffiss Air Force Base
Rome, New York
Public Comment Period
XXXXX X, 2001 - XXXXX X, 2001

December 2000

Air Force Recommends No Further Action for Soils with Land Use Restrictions at Building 255 Drywells Area of Concern

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Building 255 Drywells AOC.
- The proposed plan to take no further action for soils with land use restrictions at Building 255 Drywells AOC.
- How you can participate in the final decision process for Building 255 Drywells AOC.

This ***proposed plan*** is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). The Air Force recommends no further action for soils with land use restrictions for industrial/commercial use at the Building 255 ***Area of Concern***. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. Groundwater at the Building 255 AOC is being further evaluated as part of the On Base Groundwater AOC Tin City operable unit.

The document has been prepared in accordance with public participation requirements of the ***Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, the National Contingency Plan***, and the former Griffiss Air Force Base (AFB) ***Federal Facility Agreement***. In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies."

This plan is intended to elicit public comments on the proposal to take no further action for soils with land use restrictions at the site. The final decision or ***Record of Decision*** will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone***.

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priority List.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of ***Areas of Concern*** on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a baseline risk assessment; a community relations plan; an RI report; and a work plan and the report for a supplemental investigation. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The draft Closure Certification Report for Interim Remedial Action was delivered on May 24, 2000.

This proposed plan for no further action for soils with land use restrictions is based on an evaluation of potential threats to human health and the environment due to contamination in the soil and groundwater, and the performance of interim remedial actions at the Building 255 Drywells AOC.

During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

BUILDING 255 DRYWELLS AREA OF CONCERN

Building 255, the Vehicle Maintenance Building, is located in the west-central portion of the base (see Figure 1). Several drywells suspected in the area of Building 255, including Buildings 215/216, 222, 223, and the former location of Building 230, are included in this proposed plan.

Two drywells, which were reportedly located near the building, are stone- and gravel-filled pits measuring approximately 3 feet square by 10 feet deep. The exact location of these two drywells is not known; however, they are potentially located in an area on the east side of the building in the grassed area across Langley Road (see Figure 2). A third drywell was located during a site reconnaissance on the west side of Building 255, beneath a manhole cover in the paved parking lot. The drywells reportedly received liquid wastes from the Vehicle Maintenance Shop and possibly a small glass repair shop located within Building 255. Wastes reportedly disposed in these two drywells consisted of lube oil, engine cleaning compounds, caustics, acids, and paint. The quantity of wastes disposed in these drywells was estimated at less than 5 gallons per day. Pesticide rinse water, solvents and other waste liquids generated in small quantities by activities in Buildings 215/216, 222, 223, 230 and 255 may also have been disposed in the drywells. Use of these drywells was discontinued in the early 1970s.

Another drywell is suspected on the south side of Building 223. Fuel residuals from a petroleum, oil and lubricants (POL) laboratory that operated from 1974 to 1984 may be present in the drywell.

The suspected locations of drywells at Building 222, former Building 230, and Building 215/216 were based on a Griffiss AFB drawing titled "Replace Metal Siding - Tin City" dated June 29, 1987.

The Building 255 Drywells AOC is located on relatively flat lying terrain with less than 1 foot of relief. Building 255 is not located near major natural surface water drainage features. Run-off from the site is channeled into the base drain storm system, which discharges to the Mohawk River. Groundwater has been encountered at depths ranging from 13.5 feet below ground surface (BGS) to 21 feet BGS. Groundwater flows to the south-southeast across the site.

Site soils consist of brown, silty fine to coarse sand and gravel to a depth of 19 feet BGS.

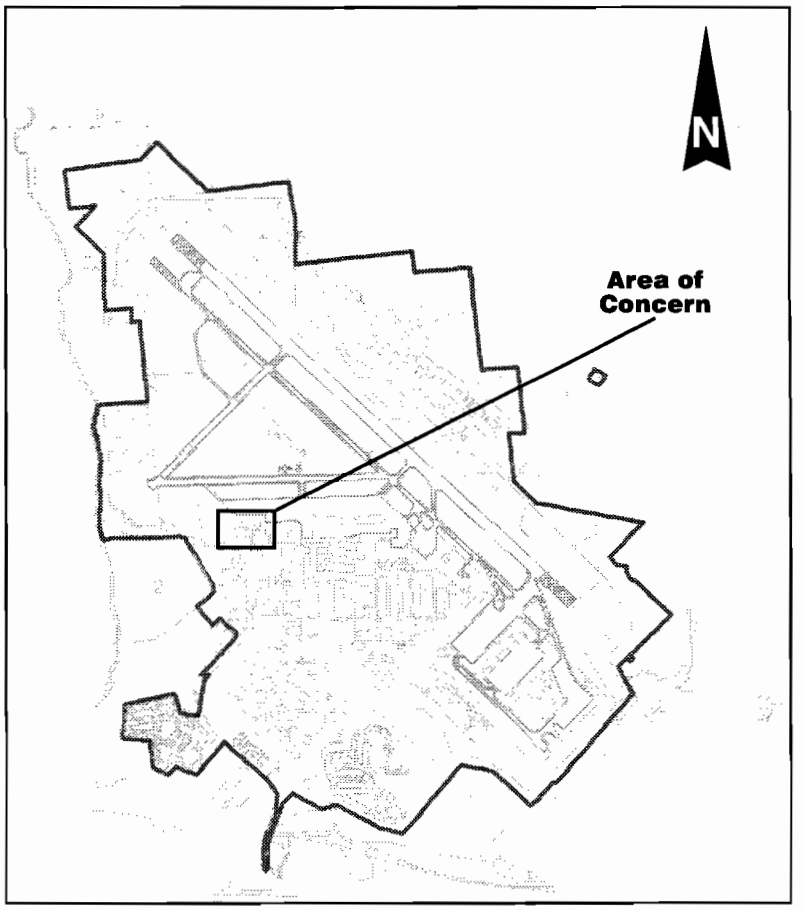


Figure 1: Building 255 AOC is located in the west-central portion of the former Griffiss AFB.

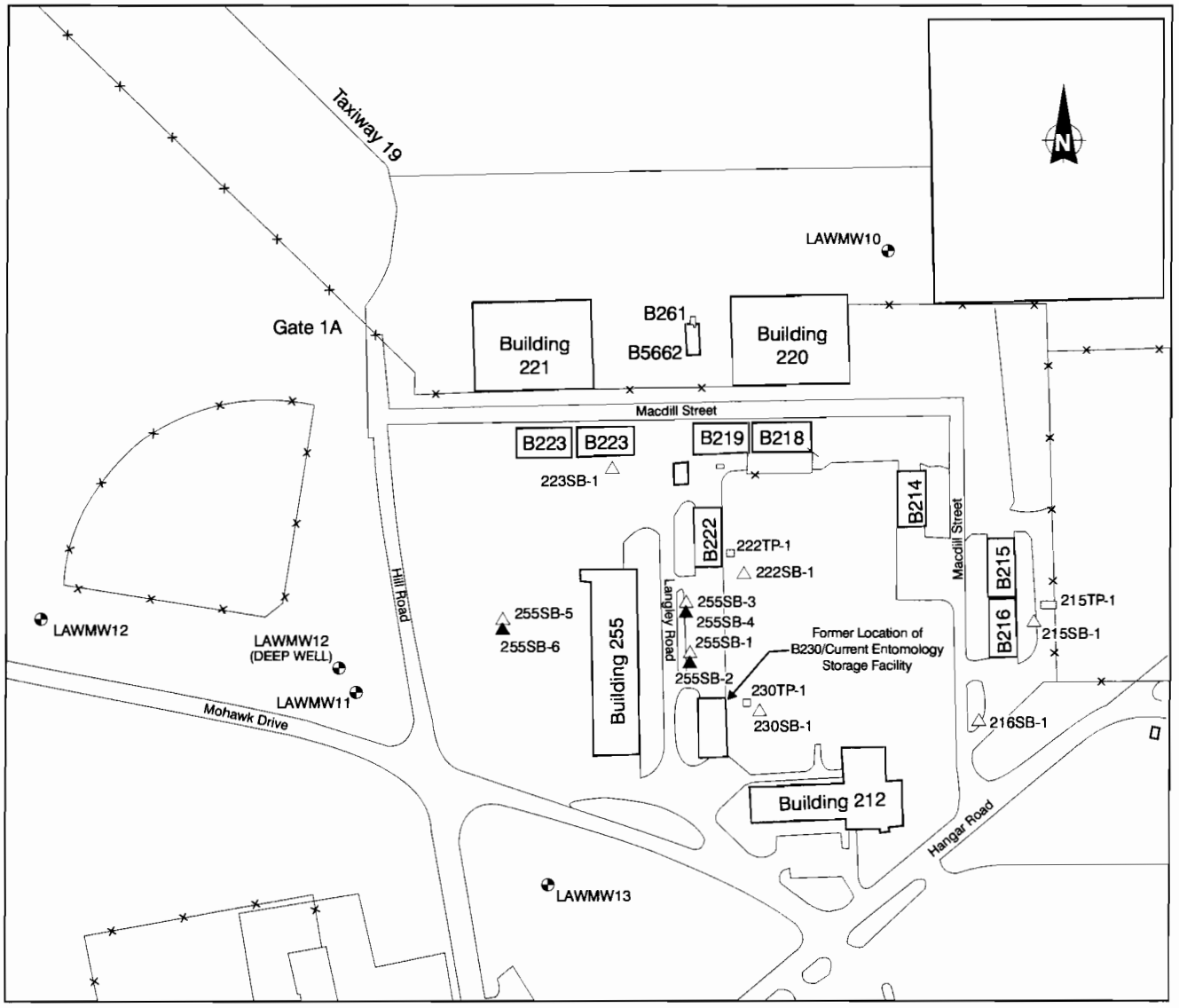


Figure 2: Building 255 AOC

SUMMARY OF SITE ACTIVITIES

Investigations

In 1994, an RI was performed. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any further remedial action was necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions. The RI included a visual survey, a ground-penetrating radar (GPR) survey, and the excavation of three test pits to try to locate the drywells; sampling and analysis of soil and grab groundwater; and installation of eight temporary monitoring wells. Observations from the visual survey included:

Building 255: Two features were noted east of Building 255 that may have been drywells associated with the storm water system. These features consisted of two corrugated metal pipes covered by steel grating and filled with gravel. No pipes were visible leading into these structures. No drywell was visibly evident in the parking lot west of Building 255. A storm drain, covered by a manhole and filled with dirt to 4 feet BGS, was assumed to be a drywell associated with Building 255.

Building 222: No drywell was evident in the vicinity of this building.

Building 223: The area at the suspected drywell location, south of Building 223, was reported by Griffiss AFB personnel to have been frequently excavated to at least 8 feet BGS for optical cable installation and repair. No drywell was reportedly encountered during this construction. The drywell at this location may have been unknowingly excavated or otherwise disturbed during construction activities.

Former Building 230: The area at the suspected drywell location east of the former location of Building 230 (now a covered pesticide storage/wash facility) was highly disturbed during construction of the new facility.

Building 215/216: An open surface-water drainage swale directs flow to a corrugated pipe where drainage is diverted beneath the driveway southwest of Building 216. It is uncertain whether this is a drywell; however, this feature is at the location reported to be a drywell. No drywell was evident east of Building 215/216.

Volatile Organic Compounds (VOCs)
a group of organic compounds that have a tendency to vaporize readily.

Semivolatile Organic Compounds (SVOCs)
a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

PCBs
(polychlorinated biphenyls) a group of synthetic organic chemicals with varying harmful effects. Humans come in contact with PCBs by breathing air, ingesting soil or water, and through dermal contact with soil or water containing PCBs.

There were no anomalies detected during the GPR survey, which was conducted in 1993 at the suspected Building 255 drywell. In 1994, test pits were excavated at Building 222, Building 230, and Building 215/216 in an attempt to confirm the location of the reported drywells. Drywells were not located by any of the test pit activities and all test pits were backfilled.

Eight temporary monitoring wells were installed in August 1994 to collect grab groundwater samples. Six additional temporary wells were installed in April 1995 to collect additional grab groundwater samples. A total of 10 samples were collected. Analysis of the grab groundwater samples indicated the presence of 22 ***volatile organic compounds***, 20 ***semivolatile organic compounds***, 34 pesticides, two ***PCBs***, 26 metals, total glycols, cyanide, and petroleum hydrocarbons. The concentrations of 12 VOCs, 6 SVOCs, two pesticides, one PCB, 18 metals, and petroleum hydrocarbons exceeded the most stringent criteria for groundwater (see Table 1).

Eleven soil borings were drilled in the vicinity of the reported drywell locations. Six borings were associated with known drywell locations and five borings were located downgradient of presumed drywell locations. A total of 63 soil samples were collected. Analysis of the subsurface soil samples indicated the presence of 12 VOCs, 30 SVOCs, 23 pesticides, two PCBs, and 26 metals, as well as cyanide and petroleum hydrocarbons. The concentrations of six VOCs, nine SVOCs, one pesticide, one PCB, and 17 metals exceeded the most stringent criteria for subsurface soils (see Table 2). The high concentrations shown in Table 2 were all measured in one borehole (255SB-5) at a depth greater than 4 feet. This borehole is located near the drywell in the parking lot to the west of Building 255. This soil was removed during the interim remedial action (see page 11).

Table 1
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 255 DRYWELLS
GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Volatiles (µg/L)			
1,2-Dichloroethane	0.8 - 4	2/8	0.4 [a]
1,3,5-Trimethylbenzene	190 D	1/8	5
Benzene	0.2 J - 3	1/8	1 [a]
Ethylbenzene	26	1/8	5 [a]
Isopropylbenzene	15	1/8	5 [a]
m,p-Xylene	160 D	1/8	5 [a]
Naphthalene	83 D	1/8	10 [b]
o-Xylene	87 D	1/8	5 [a]
SEC-butylbenzene	13	1/8	5 [a]
Toluene	0.1 J - 780 D	1/8	5 [a]
Tricholoethylene	0.1 J - 7.7	3/8	3
cis-1,2-Dichlorethylene	96 D	1/8	5 [a]
SVOCs (µg/L)			
Benzo(a)anthracene	0.06 J - 0.9 J	4/9	0.002 [b]
Benzo(a)pyrene	0.06 J - 0.9 J	4/9	0.002 [b]
Benzo(b)fluoranthene	0.1 J - 1 J	4/9	0.002 [b]
Benzo(k)fluoranthene	0.2 JU - 0.3 J	3/8	0.002 [b]
Chrysene	0.06 J - 1 J	4/9	0.002 [b]
Indeno(1,2,3-cd)pyrene	0.5 J	1/8	0.002 [b]
Pesticides/PCBs (µg/L)			
Aldrin	0.001 J - 0.004 J	1/9	0.002 [c]
Dieldrin	0.001 J - 0.013 J	1/8	0.004 [a]
PCB-1260 (Aroclor 1260)	0.6 J	1/8	0.1 [a]
Metals (mg/L)			
Aluminum	5.22 - 1,420	8/8	0.05 [d]
Antimony	0.0115	1/7	0.003 [a]
Arsenic	0.0041 J - 0.19	5/8	0.025 [a]
Barium	0.039 - 8.19	1/8	1 [a]
Beryllium	0.00173 J - 0.0592	5/8	0.003 [b]
Cadmium	0.058 J - 0.149	2/8	0.005 [a]
Chromium	0.0133 J - 4.87	5/8	0.05 [a]
Copper	0.055 - 9.43	6/8	0.2 [a]
Iron	147 - 3,940	4/8	0.3 [a]
Lead	0.0196 - 4.68	8/8	0.015 [c]
Manganese	0.693 - 293	8/8	0.05 [d]
Mercury	0.00005 J - 0.00351 J	1/8	0.0007 [a]
Nickel	0.0186 J - 2.48	4/8	0.1 [a]
Selenium	0.00083 J - 0.155	4/8	0.01 [a]
Silver	0.0062 J - 0.161 J	2/8	0.05 [a]
Thallium	0.0044 J - 0.0054	2/8	0.0005 [b]
Zinc	0.095 - 15.1	6/8	2 [a]
Wet Chemistry			
Petroleum Hydrocarbons	0.11J -28	8/8	0.1 [a]

[a] NYSDEC Class GA groundwater standard; June 1998

[b] NYSDEC Class GA groundwater guidances; June 1999

[c] RCRA corrective action levels

[d] Federal secondary maximum contaminat level

[e] Federal primary maximum contaminat level

Key:

D = Indicates compounds identified in an analysis from a diluted sample

J = Estimated concentration*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

Table 2
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 255 DRYWELLS
SUBSURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
VOCs (µg/kg)			
Acetone	2 J - 71,000	2/63	200 [a]
Ethylbenzene	1 J - 46,000	2/63	5,500 [a]
Methylene Chloride	2 J - 2,100 J	1/63	100 [a]
Toluene	1 J - 550,000	5/63	1,500 [a]
Trichloroethylene (TCE)	5 J - 13,000	1/63	700 [a]
Xylenes	1 J - 550,000	5/63	1,200 [a]
SVOCs (µg/kg)			
1,2-Dichlorobenzene	19,000 J - 29,000 J	2/63	7,900 [a]
Benzo(a)anthracene	37 J - 1,500 J	8/63	224 [a]
Benzo(a)pyrene	67 J - 1,900	21/63	61 [a]
Benzo(b)fluoranthene	130 J - 2,300 J	3/63	1,100 [a]
Bis(2-ethylhexyl)phthalate	48 J - 140,000 J	2/63	50,000 [a]
Chrysene	40 J - 6,900 J	6/63	400 [a]
Di-n-butyl phthalate	37 J - 16,000 J	2/63	8,100 [a]
Dibenzo(a,h)anthracene	430	1/63	14 [a]
Naphthalene	47 J - 520,000	2/63	13,000 [a]
Pesticides/PCBs (µg/kg)			
Endrin	0.41 J - 109	1/64	100 [a]
PCB-1260 (Aroclor 1260)	17.4 J - 2,380	4/64	90 [b]
Metals (mg/kg)			
Antimony	1.8 J -155	3/63	3.4 [c]
Arsenic	2.1 J - 49	35/63	4.9 [c]
Barium	11.2 J - 1,420	3/63	300 [a]
Beryllium	0.076 J - 0.66	1/63	0.65 [c]
Cadmium	0.22 J - 96.7	6/63	1.1 [c]
Calcium	579 - 76,700	5/63	23,800 [c]
Total chromium	5.1 J - 1,690	9/63	22.6 [c]
Cobalt	3.5 J - 30.6	1/63	30 [a]
Copper	13 - 4,900	11/63	43 [c]
Lead	1.8 - 20,000	16/63	36.2 [c]
Magnesium	1,610 J - 8,540 J	2/63	7,180 [c]
Manganese	160 - 2,210	2/63	2,110 [c]
Mercury	0.014 J - 1.77	5/63	0.1 [a]
Nickel	5.98 J - 72.2	4/63	46.1 [c]
Silver	0.36 J - 13.6	13/63	1.1 [c]
Sodium	24 J - 443	1/63	259 [c]
Zinc	23 - 6.730	7/63	120 [c]

An RI supplemental investigation was performed in 1997 in the Tin City area, which includes Building 255. This investigation included the installation and sampling of two new wells at Bulding 255. Low levels of chloroform and trichloroethylene were detected in one of the wells, but the concentrations did not exceed the NYSDEC groundwater guidance values.

[a] NYS-recommended soil cleanup objectives

[b] Proposed RCRA corrective action levels

[c] Backgroung screening concentration

Key:

J = Estimated concentration

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the Building 255 Drywells AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils and groundwater at the site. The results of this assessment and the interim remedial action (see page 11) were considered when formulating the no further action for soils with land use restrictions proposal.

Human Health Risk Assessment

Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Building 255 Drywells AOC could pose health risks to individuals under current and proposed future land use. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification—identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment—estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment—determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization—summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soils, soil gas, sediments, surface water, and groundwater at the site were considered chemicals of potential concern with the exception of inorganics detected at concentrations less than twice the mean background concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). As a class, petroleum hydrocarbons were not included as a chemical of concern; however, the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated.

The Building 255 Drywells AOC is currently designated for industrial use. Future land use of this AOC is assumed to be commercial/industrial. For the purposes of this risk assessment, however, the risk to utility, construction, and industrial workers was assessed. The various exposure scenarios for each population are described in Table 3.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Building 255 Drywells AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

Table 3
BUILDING 255 DRYWELLS AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

UTILITY AND CONSTRUCTION WORKERS	INDUSTRIAL WORKER
• Inhalation of airborne chemicals • Inhalation of fugitive dust from soils • Incidental ingestion of soil • Dermal contact with soil	• Ingestion of groundwater • Dermal contact with groundwater (during showering) • Inhalation of VOCs from groundwater (during showering)

SUMMARY OF SITE RISKS (Cont.)

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. Once either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as the point of departure for determining remediation goals for alternatives.

Results of Site-Specific Health Risk Assessment

Potential risks from exposure to COPCs at the Building 255 AOC were evaluated for utility, construction, and industrial workers during the RI, prior to the interim remedial action. The potential carcinogenic and noncarcinogenic risks from exposure to soil and groundwater are summarized below.

Carcinogenic Risk

The total carcinogenic risk associated with exposure by utility workers to subsurface soil is 2 in 1,000,000 (2×10^{-6}), which is within EPA's target risk range.

The total carcinogenic risk associated with exposure by construction workers to soil is 1 in 1,000,000 (1×10^{-6}), which is within EPA's target risk range.

The total carcinogenic risk from exposure to contaminants in grab groundwater by industrial workers is 5 in 10,000 (5×10^{-4}), which is above EPA's target risk range. *PAHs* and PCBs were the major risk contributors via the inhalation and dermal pathways.

PAHs
(polycyclic aromatic hydrocarbons) a group of naturally occurring heavier organic compounds (e.g., pyrene, phenanthrene) that are also produced by combustion and other processes.

The total carcinogenic risk from exposure to contaminants in groundwater by industrial workers is 2 in 100,000 (2×10^{-5}), which is within the EPA's target risk range. Chlordane was the major contributor to this risk.

Noncarcinogenic Risk

The total HI for utility workers exposed to soils is 0.03. The total HI for construction workers exposed to subsurface soils is 0.6. The total HI for industrial workers exposed to constituents in grab groundwater and groundwater well samples is 0.8. All HIs for noncarcinogenic effects are below the benchmark level of 1.

Groundwater at the Building 255 Drywells AOC is being further evaluated under On Base Groundwater AOC as part of the Tin City operable unit.

Uncertainties

Uncertainties exist in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and health-protective assumptions throughout the entire risk assessment process results in an assessment that is protective of human health and the environment. Examples of uncertainties associated with the risk assessment for this AOC include (1) Chemical samples were collected from the suspected source of contamination rather than through random sampling, which may result in a potential overestimation of risk; (2) The HIs associated with dermal contact with soil were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (3) The models used in the RI are likely to overestimate exposure point concentrations in air, which would cause an overestimation of risk for the inhalation pathway; (4) It was assumed that groundwater would be used for industrial purposes in the future, which is unlikely. This would result in an overestimation of risk; and (5) Toxicological criteria were not available for all chemicals found at the site, which may result in an underestimation of risk.

Ecological Risk Assessment

Building 255 is located in a highly developed portion of the base with little habitat available for ecological receptors. However, because the future land use may be open space, potential future exposures to ecological receptors were evaluated and a baseline risk assessment was performed. The assessment modeled risks to the raccoon and short-tailed shrew for exposures to surface soil.

The hazard quotients for both the raccoon and the shrew were less than 1; the potential for adverse impacts to these ecological receptors is considered to be insignificant.

Modeling of bioaccumulation to higher order species was not performed, nor was the cumulative effect of multiple contaminants considered; this tends to underestimate the risk to ecological receptors.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

INTERIM REMEDIAL ACTION

In 1998, an interim remedial action was performed to remove contaminated subsurface soils at the drywell located west of the former site of Building 255. Building 255 was demolished prior to remedial actions at the site. The work consisted primarily of asphalt demolition, removal and disposal of the drywell, soil excavation, confirmation sampling and analysis, transportation and off-site disposal of excavated materials, backfilling and site restoration. A brief summary of this remedial action is provided below.

Remedial action work activities began on July 7, 1998. Equipment was mobilized and work zones were established. The volume of contaminated soil was estimated as an approximately 20 foot square area, centered on the drywell, from a depth of 4 to 14 feet below ground surface (BGS). Excavation of the drywell involved removing the first four feet of clean overburden and stockpiling. All of the remaining material removed from the excavation was assumed contaminated, segregated, and stockpiled on a bermed liner.

Two underground pipes, one that came from the Building 255 floor drain to the parking lot drywell, and one of unknown origin, were cut and removed to the edge of the excavation. The remaining pipes were plugged and grouted closed. Excavation was completed on July 13, 1998. The estimated volume of soil excavated, stockpiled, and disposed was 192.3 cubic yards.

Confirmatory samples were taken after the removal action was completed to verify the effectiveness of this interim remedial action. The results of the confirmatory soil samples were compared to the project cleanup goals and NYSDEC TAGM 4046 and the results were acceptable and the project goals were met. After the project goals were met, the excavated area was backfilled with the estimated 59.3 cubic yards of clean stockpiled soil and additional clean material.

Material from the contaminated soil stockpile was loaded for transport to Seneca Meadows Landfill for disposal on September 14, 15, and 16, 1998.

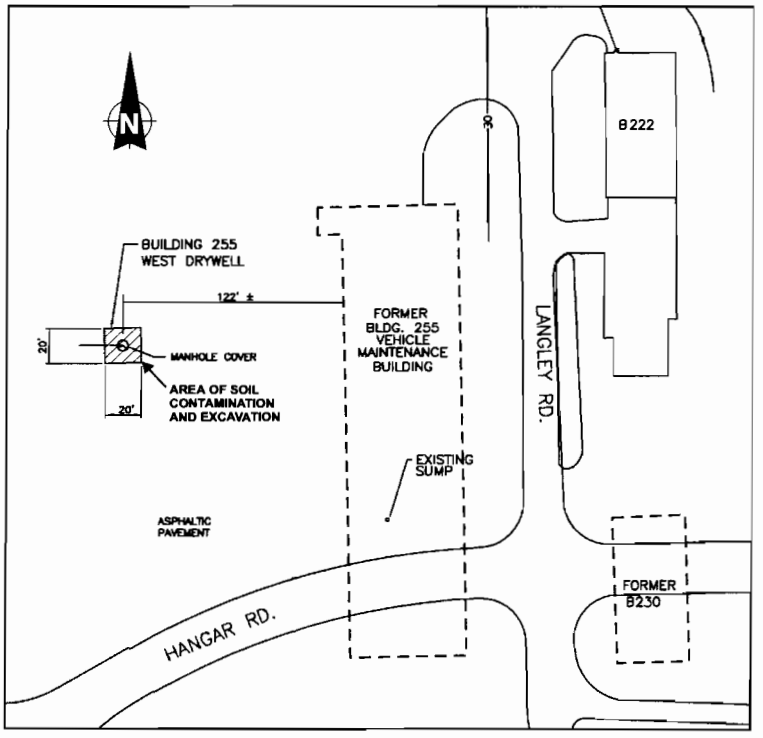


Figure 3: Building Interim Remedial Action

DESCRIPTION OF THE PREFERRED ALTERNATIVE

No further action for soils with land use restrictions for industrial/commercial use is proposed for the Building 255 AOC. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. The transfer documents will contain the following restrictions to ensure that the reuse of the site is consistent with the risk assessment:

- The property will be industrial/commercial use unless permission is obtained from the EPA, NYSDEC, and the New York State Department of Health; and
- The owner or occupant of the property shall not extract, utilize, consume, or permit to be extracted any water from the aquifer below the ground surface within the boundary of the property unless such owner or occupant obtains prior written approval from the New York State Department of Health.

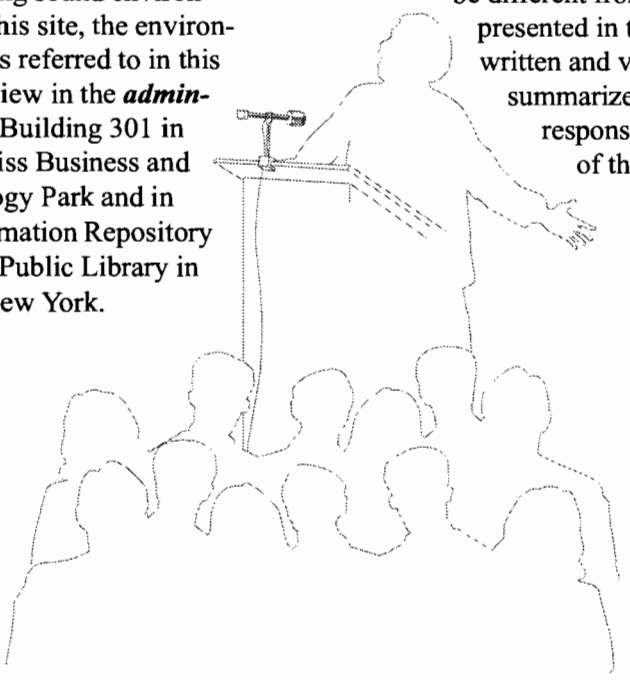
Following the interim remedial action, the majority of the chemicals detected at this AOC do not exceed standards and guidance values and the known source of the groundwater contamination has been removed. In addition, the baseline risk assessment for industrial/commercial use indicates that the levels of contamination present in the soils prior to remediation fell within or below EPA's acceptable carcinogenic risk range and pose no noncarcinogenic risk to the utility, construction, and industrial workers. Therefore, the concentrations of chemicals in the soil following the remedial action and the baseline risk assessment demonstrate that the site contaminants pose no current or potential threat to public health or the environment. Groundwater at the Building 255 AOC is being further evaluated as part of the On Base Groundwater AOC Tin City operable unit.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take no further action for soils with land use restrictions at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' remedial action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the preferred alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 14 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by XXXX X, 2001.

Public Comment Period

The agencies have set a public comment period from XXXX X, 2001, to XXXX X, 2001, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for X:XX pm, XXXXXX, XXXX X, 2001, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Building 255

Problem Identification/ Records Search: 1981

|

Problem Confirmation and Quantification: 1982

|

Field Investigation: 1985

|

Griffiss AFB added to National Priorities List: 1987

|

Health Assessment: 1988

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EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

|

Griffiss designated for realignment by BRAC: 1993 and 1995

|

ATSDR Health Assessment: 1995 Addendum: 1996

|

Remedial Investigation Report Draft-final: December 1996

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Supplemental Investigation Report Final: July 1998

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Closure Certification Report Draft: February 2000

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No Further Action for Soils with Land Use Restrictions Proposed Plan Draft-Final: December 2000

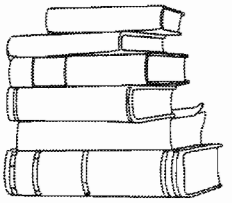
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No Further Action for Soils with Land Use Restrictions Proposed Plan Final: XXXX 2000

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Public Comment Period: XXXX X, 2001 - XXXX X, 2001

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

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Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Building 255 DRYWELLS AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Building 255 Drywells AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Building 255
Drywells AOC at the
former Griffiss AFB,
and to solicit
your comments.

Proposed Plan

T-9 STORAGE AOC

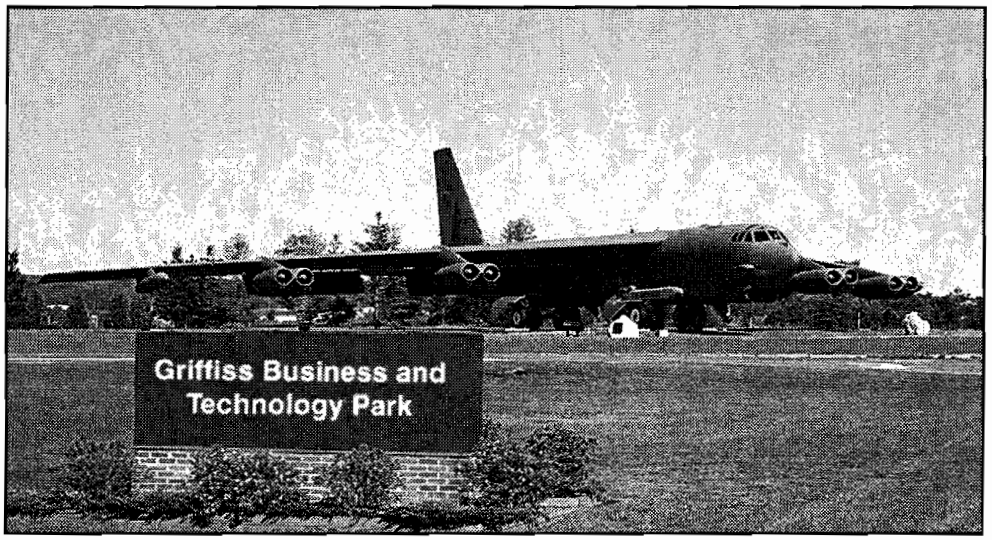


Former Griffiss Air Force Base
Rome, New York
Public Comment Period
XXXXX X, 2001 - XXXXX X, 2001

December 2000

Air Force Recommends No Further Action for Soils with Land Use Restrictions at the T-9 Storage Area of Concern

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This ***proposed plan*** is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). The Air Force recommends no further action for soils with land use restrictions for industrial/commercial use for the T-9 Storage ***Area of Concern.*** Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. Groundwater at the T-9 AOC is being further evaluated under the NYSDEC Spills Program (Spill # 9702173).

The document has been prepared in accordance with public participation requirements of the ***Comprehensive Environmental Response, Compensation, and Liability Act of 1980,*** *as amended*, the ***National Contingency Plan***, and the former Griffiss Air Force Base (AFB) ***Federal Facility Agreement.*** In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies."

This plan is intended to elicit public comments on the proposal to take no further action for soils with land use restrictions at the site. The final ***Record of Decision*** will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at the T-9 Storage AOC.
- The proposed plan to take no further action for soils with land use restrictions at the T-9 Storage AOC.
- How you can participate in the final decision process for the T-9 Storage AOC.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
A public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Because of its flat topography and high average precipitation, the former Griffiss AFB is considered a ***groundwater recharge zone.***

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The former Griffiss AFB was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances and hazardous wastes were used, stored, or disposed of at various sites on the installation. The defense missions involved the procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to detect, locate, and quantify contamination of areas by these substances and wastes. These studies and investigations included a records search in 1981, involving interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification Studies in 1982 and 1985; soil and groundwater analyses in 1986; a basewide health assessment in 1988 conducted by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific studies and investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB dated October 23, 1995 and an addendum to the assessment report dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force is required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of environmental ***Areas of Concern*** on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a baseline risk assessment; a community relations plan; and the RI report. The Air Force delivered a draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The draft No Further Action Proposed Plan was delivered in February, 1998. The draft Closure Certification Report for Interim Remedial Action was delivered on May 24, 2000.

This proposed plan to take no further action for soils with land use restrictions is based on an evaluation of potential threats to human health and the environment due to contamination in the soil and the performance of interim remedial actions at the T-9 Storage AOC.

During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirement (ARAR)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

TBCs (To Be Considered)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, background screening concentrations.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site. For example, arsenic and other metals are commonly found in the earth's crust.

T-9 STORAGE AREA OF CONCERN

The T-9 Storage Area AOC covers approximately 30,000 square feet and is located in the central industrial portion of the former base at the intersection of Brooks Road and Selfridge Street (see Figure 1). The site is an open grass and gravel lot that was reportedly used for parking heavy equipment and storing herbicides and petroleum-based paving products for grounds and maintenance (see Figures 2 and 3). The property was acquired in 1942 when the area was primarily pasture. Several buildings were constructed in the vicinity of the site after the land was acquired: Buildings 5, 6, 7, 8, 9, and 10, and the Base Gas Station (Building 43). Currently, only Building 43 exists in the vicinity of the site. Building 9, for which Site T-9 is designated, was used as a motor pool area and was demolished in 1997.

The T-9 Storage AOC formerly contained a 550-gallon kerosene aboveground storage tank (AST) and numerous 55-gallon drums of soil cuttings from previous environmental investigations. It was reported that the AST had leaked on several occasions, and stained soils were observed at the former AST location. In 1991, the 500-gallon tank was replaced with a mobile 275-gallon kerosene tank in the same location. The mobile tank was relocated to Building 8 sometime between 1992 and 1996 (exact time unknown) and was then removed from Building 8 in December 1996. Also, trucks carrying asphalt were reportedly rinsed with kerosene, and the rinsate was reportedly discharged onto the ground. This is suspected of being the primary source of contamination at the T-9 Storage AOC (the length of time this practice continued is unknown).

Surface water runoff for the T-9 Storage Area AOC is collected in the base storm drain system, which discharges to Rainbow Creek and the culverted portion of Sixmile Creek. Groundwater flows in a south-to-southeasterly direction and was encountered from 3 feet below ground surface (BGS) in the western portion of the AOC to 12 feet BGS in the northern portion of the AOC.

Surface and subsurface soils were characterized in the RI as being brown, sandy and gravelly silt.

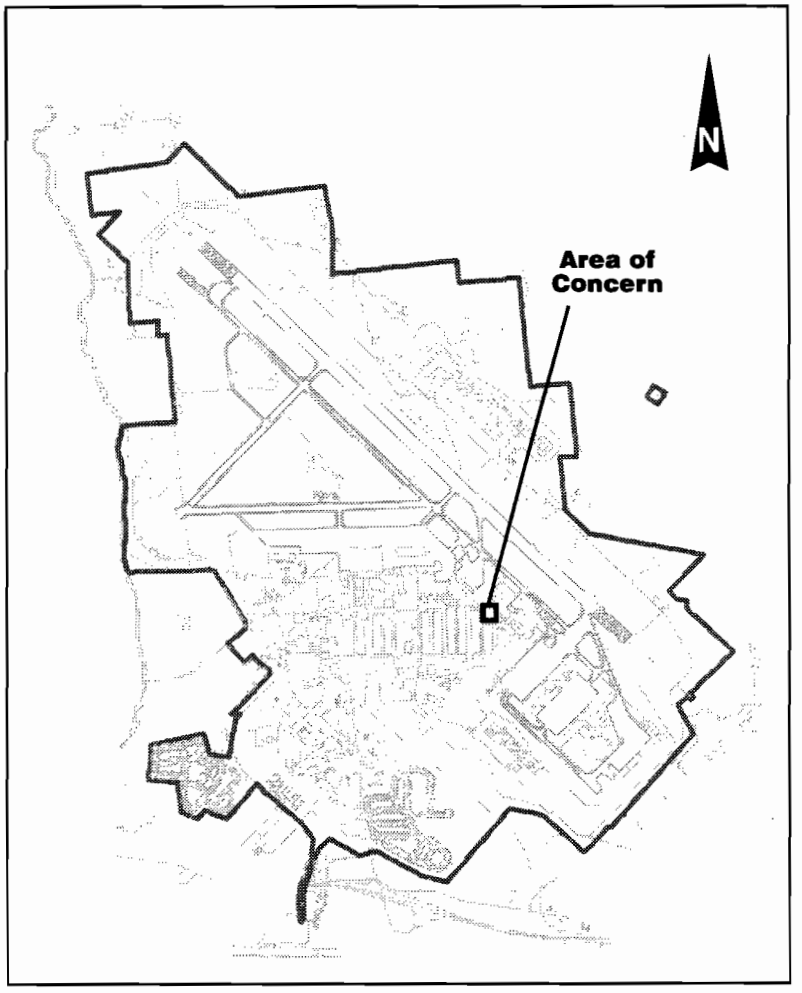


Figure 1: The T-9 Storage Area AOC is located in the central industrialized portion of the former Griffiss AFB.

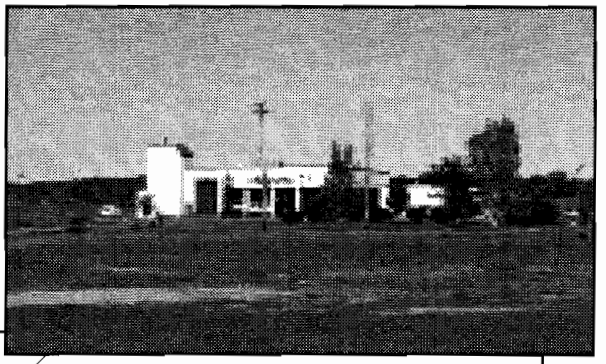


Figure 2: The T-9 Storage Area is a grass and gravel lot. Building 45, a fire station north of the storage area, can be seen across the lot.

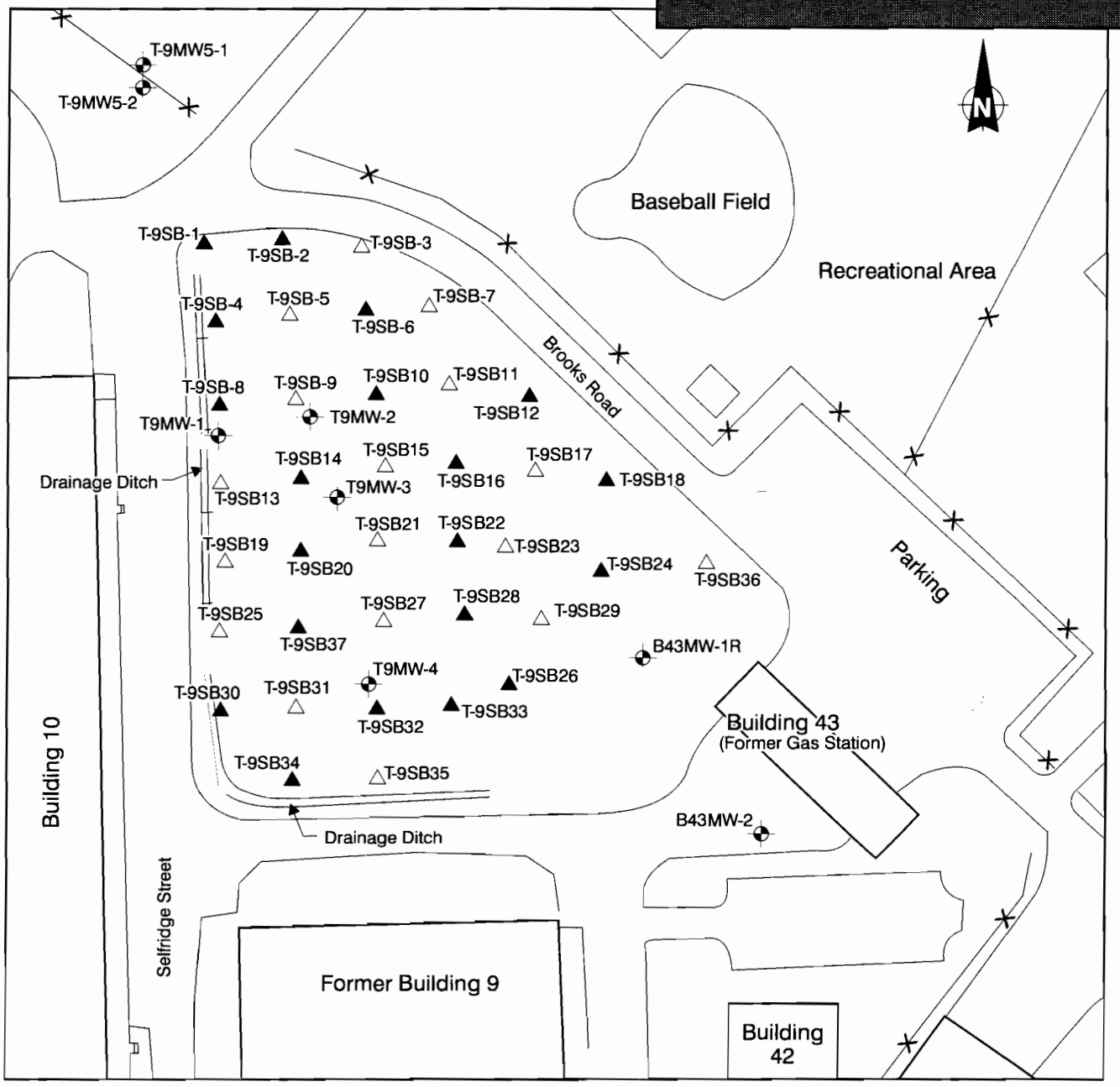


Figure 3: T-9 Storage AOC

SUMMARY OF SITE ACTIVITIES

Investigations

Previous investigations conducted at the T-9 Storage Area AOC consisted of a 1986 soil and groundwater study and four rounds of groundwater sampling conducted in 1992. Several contaminants were detected in soils and groundwater during these investigations; however, no remedial actions were performed prior to the RI. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine if any remedial action is necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions. Field activities included aquifer testing, topographic and location surveys, drilling, monitoring well installation, surface and subsurface soil sampling, and groundwater sampling. The following summarizes the RI field sampling efforts conducted at the T-9 Storage Area AOC.

RI field activities began in May 1994. Surface and subsurface soil samples were collected from 36 boreholes. Subsurface soil samples were collected at 2-foot intervals from 0 to 12 feet BGS. A total of 106 samples were collected for field screening at an on-site laboratory to determine which samples would be sent for off-site analysis. Forty-six subsurface soil samples (those with the highest concentrations) were then sent for confirmatory analysis to a commercial laboratory. In November 1994, surface soil samples and several confirmatory subsurface soil samples were recollected due to laboratory errors associated with the first sampling round.

Volatile Organic Compounds (VOCs) a group of organic compounds that have a tendency to vaporize readily.

Semivolatile Organic Compounds (SVOCs) a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

Three ***volatile organic compounds*** were detected in some of the surface soil samples. All concentrations of VOCs were below soil guidance values.

Twenty-eight ***semivolatile organic compounds***, 25 pesticides, 26 polychlorinated biphenyls (PCBs), and 16 metals were detected in surface soil samples. Seven SVOCs, one pesticide, three PCBs, and 12 metals were detected in surface soil samples at concentrations exceeding potential soil guidance values (see Table 1). Petroleum hydrocarbons were detected in each of the surface soil samples at a mean concentration of 602 mg/kg. Cyanide was detected in two samples at a mean concentration of 1.2 mg/kg.

Field screening results indicated the presence of VOCs, SVOCs, and pesticides in the subsurface soils. Twelve VOCs, 24 SVOCs, 23 pesticides, one PCB, and 24 metals were detected in the confirmatory subsurface soil samples. The most frequently detected VOC was toluene, which was detected in 18 of 43 samples at a mean concentration for all samples of 2.7 µg/kg. Four of the VOCs were petroleum-related constituents. The remaining eight VOCs were chlorinated or nonchlorinated solvents. Of the detected compounds, one VOC, six SVOCs, one PCB, and 18 metals exceeded the most stringent guidance values (see Table 2). The sample locations for the SVOCs where concentrations exceeded the guidance values were widespread rather than being concentrated in one area, which may indicate random contamination associated with small spills or leaks from vehicles. SVOC contamination at this site is limited primarily to surface and shallow subsurface soils. These findings are consistent with the anticipated nature of contamination based on the AOC's history and use.

Table 1
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
T-9 STORAGE AOC
SURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	55J - 14,000J	17/37	224[a]
Benzo(a)pyrene	59J - 11,000J	26/37	61[a]
Benzo(a)fluoranthene	26J - 15,000J	6/37	1,100[a]
Benzo(k)fluoranthene	44J - 4,200J	3/37	1,100[a]
Chrysene	94J - 13,000J	11/37	400[a]
Dibenzo(a,h)anthracene	50J - 1,500J	5/36	14[a]
Indeno(1,2,3cd)pyrene	54J - 5,500J	2/37	3,200[a]
Pesticides/PCBs (µg/kg)			
Dieldrin	0.81J - 120J	4/53	40[b]
PCB-1242	130	1/53	90[b]
PCB-1248	1,390J	1/53	90[b]
PCB-1260	19J - 310J	7/53	90[b]
Metals (mg/kg)			
Antimony	3.8	2/42	3.4[c]
Arsenic	1 - 7.1	2/42	4.9[c]
Barium	8.1 - 495	4/42	300[a]
Cadmium	0.34J - 1.99J	1/42	1.0[a]
Calcium	1,270J - 171,000	10/42	23,800[c]
Total chromium	7.3 - 30	4/41	22.6[c]
Copper	9.6 - 94.3J	5/42	43[c]
Lead	9.6 - 142	16/42	36.2[c]
Manganese	242 - 6,550	1/41	2,110[c]
Potassium	255 - 2,110	1/42	1,990[c]
Sodium	56J - 2,350	12/42	259[c]
Zinc	35.5J - 145	5/42	120[c]

[a] NYS soil cleanup objectives.

[b] Proposed RCRA corrective action levels.

[c] Background screening concentration.

Key:
J = Estimated concentration.*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

SUMMARY OF SITE ACTIVITIES (Cont.)

The groundwater investigation performed during the RI included grab groundwater samples collected from temporary wells installed in 17 of the soil borings and groundwater samples collected from seven monitoring wells at the site.

The grab groundwater samples were considered field screening samples and analyzed at an on-site laboratory. These samples indicated the presence of benzene, ethylbenzene, chlorinated solvents, chrysene, benzo(a)anthracene, and several pesticides.

Table 2
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
T-9 STORAGE AOC, SUBSURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
VOCs(μg/kg)			
Acetone	2J - 220	1/43	200[a]
SVOCs (μg/kg)			
Benzo(a)anthracene	71J - 3,100J	5/29	224[a]
Benzo(a)pyrene	52J - 2,600J	7/29	61[a]
Benzo(b)fluoranthene	37J - 3,300J	1/29	1,100[a]
Benzo(k)fluoranthene	46J - 1,500J	1/29	1,100[a]
Chrysene	49J - 3,900J	3/29	400[a]
Dibenzo(a,h)anthracene	92J - 560J	2/29	14[a]
Pesticides/PCBs (μg/kg)			
PCB-1260	17.2J - 540	2/44	90[b]
Metals (mg/kg)			
Aluminum	2,690 - 42,800	2/35	18,300[c]
Antimony	3.9	1/35	3.4[c]
Arsenic	0.86 - 9.4J	3/35	4.9[c]
Beryllium	0.119J - 2.6	3/35	0.65[c]
Calcium	1,240 - 52,600	9/35	23,800[c]
Total chromium	3.4 - 55.1	2/35	22.6[c]
Cobalt	3.2 - 35.3	1/35	30[a]
Copper	5.2 - 79.2	3/35	43[c]
Iron	7,550 - 93,400	1/35	47,400[c]
Lead	3 - 204	1/35	36.2[c]
Magnesium	1,390 - 14,100	3/35	7,180[c]
Manganese	118 - 6,810J	4/35	2,110[c]
Mercury	0.23	1/35	0.1[c]
Nickel	8.69 - 74.9	2/35	46.1[c]
Potassium	268 - 6.32 x 10^6	2/35	1,990[c]
Selenium	0.28J - 4.5	1/35	2[a]
Sodium	57 - 1,370	7/35	259[c]
Zinc	23.4J - 272	1/35	120[c]

[a] NYS soil cleanup objectives.

[b] Proposed RCRA corrective action levels.

[c] Background screening concentration.

Key:
J = Estimated concentration.*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

Five VOCs (1,1,1-trichloroethane; 1,1-dichloroethane; acetone; chloroethane; and tetrachloroethylene) were detected at low concentrations in some of the groundwater samples collected from the monitoring wells; all concentrations were below standards and guidance values. Four SVOCs (bis[2-ethylhexyl]adipate; butylbenzylphthalate; di-n-butylphthalate; and diethylphthalate) were detected in groundwater samples at estimated concentrations below the standards and guidance values. Seven pesticides and 20 metals were detected in some of the groundwater samples. One pesticide slightly exceeded the groundwater standard and six metals exceeded the most stringent standards or guidance values (see Table 3). Petroleum hydrocarbons were detected in five of seven samples at concentrations ranging from 0.17 to 0.2 mg/L.

Table 3
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
T-9 STORAGE AOC, GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Pesticides/PCBs (µg/L)			
Dieldrin	0.004J	1/7	ND[a]
Metals (mg/L)			
Aluminum	0.088J - 3.38	4/7	0.05[b]
Antimony	0.0034	1/7	0.003[c]
Iron	0.013 - 7.23	5/7	0.3[a]
Lead	0.00083J - 0.0495	2/7	0.015[d]
Manganese	0.024 - 0.774	5/7	0.05[b]
Sodium	10.3 - 242	4/7	20[a]

[a] NYSDEC class GA ground water standard.

[b] Federal secondary maximum contaminant level.

[c] New York primary maximum contaminant level.

[d] Federal primary maximum contaminant level.

Key:
J = Estimated concentration.
ND= Nondetect

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the T-9 Storage AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with the contaminants found in the soils and groundwater at the site. The results of this assessment and the interim remedial action (see page 14) were considered when formulating this plan for no further action for soils with land use restrictions.

Human Health Risk Assessment

Background Information

A baseline human health risk assessment was conducted during the RI phase to determine whether chemicals detected at the T-9 Storage AOC could pose health risks to individuals under current and proposed future land use. As part of the baseline risk assessment, the following four-step process was used for assessing site-related human health risks for a reasonable maximum exposure scenario: Hazard Identification--identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment-- estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment--determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization--summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation efforts. All contaminants detected in the soils and groundwater at the site were considered chemicals of potential concern except for analytes detected in less than 5% of the subsurface soil samples at concentrations below the screening criteria, inorganics detected at concentrations less than twice the mean background, and essential human nutrients (i.e., calcium, iron, magnesium, potassium, and sodium). As a class, petroleum hydrocarbons were not included as a chemical of concern; however the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated.

The current and future land use designations for the T-9 Storage AOC are industrial/commercial. Populations that might be potentially exposed included landscape, utility, construction, and industrial workers. The various exposure scenarios for each population are described in Table 4.

Table 4
T-9 STORAGE AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

UTILITY AND CONSTRUCTION WORKERS	LANDSCAPE WORKER	INDUSTRIAL WORKER
• Incidental ingestion of soil • Inhalation of fugitive dust from soil • Dermal contact with soil	• Incidental ingestion of surface soil • Inhalation of fugitive dust from surface soil • Dermal contact with surface soil	• Ingestion of groundwater • Dermal contact with groundwater (during showering) • Inhalation of VOCs from groundwater (during showering)

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the T-9 Storage Area AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and accross pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. Once either of these thresholds have been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as a point of departure for determining remediation goals for alternatives.

Results of Site-Specific Health Risk Assessment

Potential risks from exposure to COPCs at the T-9 Storage AOC were evaluated for utility, construction, landscape, and industrial workers during the RI, prior to the interim remedial action. The potential carcinogenic and noncarcinogenic risks from exposure to soil and groundwater are summarized below.

Carcinogenic Risk

The total carcinogenic risk for utility and construction workers exposed to subsurface soil were both calculated as 1 in 1,000,000 (1×10^{-6}), which is within the EPA's target risk range. Of the three potential exposure pathways, the greatest potential carcinogenic hazard was from incidental ingestion of soil for all workers.

SUMMARY OF SITE RISKS (Cont.)

The total carcinogenic risk to landscape workers exposed to surface soil was calculated as 7 in 1,000,000 (7×10^{-6}), which is within the EPA's target risk range.

The total carcinogenic risk for industrial workers exposed to groundwater was calculated as 1 in 1,000,000 (1×10^{-6}), which is within the EPA's target risk range.

The contaminant-specific risk calculations were well within EPA's acceptable risk levels, indicating that the chemicals detected in the soils and groundwater at the T-9 Storage Area AOC do not pose a current or potential carcinogenic risk to human health.

Noncarcinogenic Risk

Total HIs for utility and construction workers exposed to subsurface soils at the site were calculated at 0.04 and 0.6, respectively. The total HI for landscape workers exposed to surface soils was calculated at 0.2. The total HI for industrial workers exposed to groundwater was 0.3. These results indicate that potential adverse noncarcinogenic health effects to these workers are not expected to occur from exposure to chemical concentrations in the soils and groundwater.

Toxicity values were not available for acenaphthylene, benzo(g,h,i)perylene, dichloroprop, lead, 2-methylnaphthalene, and phenanthrene; thus, a quantitative risk assessment could not be performed. Therefore, a qualitative assessment of the data was performed by comparing the concentrations to soil screening values, if available. Acenaphthylene was detected at estimated concentrations ranging from 0.041 mg/kg to 0.14 mg/kg, well below the most stringent guidance value of 41 mg/kg.

Benzo(g,h,i)perylene was detected at concentrations ranging from 0.042 mg/kg to 5.1 mg/kg in 30 of 68 soil samples, well below the soil guidance value of 50 mg/kg.

Dichloroprop, an herbicide, was detected at concentrations ranging from 0.00005 mg/kg to 0.0006 mg/kg in six of 92 soil samples, but there are no published standards or guidance values for dichloroprop. Lead was detected in 76 of 77 soil samples at concentrations ranging from 3.0 mg/kg to 204 mg/kg, which is below EPA's recommended guidance value of 400 mg/kg (based on residential soil exposure for children). 2-Methylnaphthalene was detected in 10 of 67 soil samples at concentrations ranging from 0.024 mg/kg to 0.72 mg/kg, well below the most stringent guidance value of 36.4 mg/kg. Phenanthrene was detected in 46 of 67 soil samples at concentrations ranging from 0.043 mg/kg to 11.0 mg/kg, well below the most stringent guidance value of 50 mg/kg.

Groundwater at the T-9 Storage Area AOC is being further evaluated under the NYSDEC Spills Program (Spill # 9702173)

Uncertainties

Uncertainties exist in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and conservative assumptions throughout the entire risk assessment process results in an assessment that is protective of human health and the environment. Examples of uncertainties associated with the risk assessment for the T-9 Storage Area include: (1) In quantifying exposure, it was assumed that chemicals are uniformly distributed over a defined area. At this AOC, chemical samples were collected from the suspected source of contamination rather than through random sampling, and this can result in a potential overestimation of risk; (2) The HIs associated with dermal contact with soil could not be quantified for many of the COPCs due to the lack of dermal absorption factors necessary for the calculation, which may result in a potential underestimation of the risk; (3) When assessing the dermal pathway, it was assumed that workers would come into contact with the soil, although the use of protective clothing is more likely. This assumption would result in a potential overestimation of risk; (4) It was assumed that for the proposed future use scenario, construction would occur over a one-year period, though it will probably require less time to complete due to the small size of this AOC. This assumption would result in a potential overestimation of risk; and (5) It was assumed that groundwater would be used for industrial purposes in the future which is very unlikely due to the availability of existing water supplies at the former base and in the City of Rome. This assumption would result in a potential overestimate of risk.

Ecological Risk Assessment

A baseline ecological risk assessment was conducted during the RI. Ecological risks were assessed for the short-tailed shrew and raccoon through exposure to surface soil through direct (ingestion of or dermal contact with surface soil) and indirect (ingestion of vegetation or other biota) routes. Hazard quotients were calculated for each of the indicator species. The HIs calculated for the raccoon were less than 1, with the highest value of 0.0046 for vanadium. The HIs for all chemicals were less than 1 for the shrew, with the exception of aluminum, with an HI of 2. This value indicates a slight potential for adverse effects to the shrew. However, due to uncertainties and the conservative nature of the risk assessment methodology, in addition to the location of this AOC in the industrial area of this base, the risks to the ecological receptors are not considered to be significant at this AOC.

Modeling of bioaccumulation to higher order species was not performed, nor was the cumulative effect of multiple contaminants considered; this tends to underestimate the risk to ecological receptors.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

INTERIM REMEDIAL ACTIONS

In February 1998, a No Further Action Proposed Plan was issued. However, based on public comments on the No Further Action Proposed Plan and the required deed restrictions, the Air Force entered into an agreement with the EPA and the NYSDEC to perform contaminated soil removal activities at the site. Cleanup goals were established such that soil was to be removed to a point where no VOCs or SVOCs exceeded a concentration of one part per million (ppm).

In April 1998, the interim remedial actions were carried out at the T-9 Storage Area at three locations: Area A, B, and C (see Figure 4). These locations were identified based on soil contamination data from previous investigations including the RI. The interim remedial action included the excavation of contaminated soil and transport of the soil to the Alert Apron and Apron 1 Land Farms on the former Griffiss AFB.

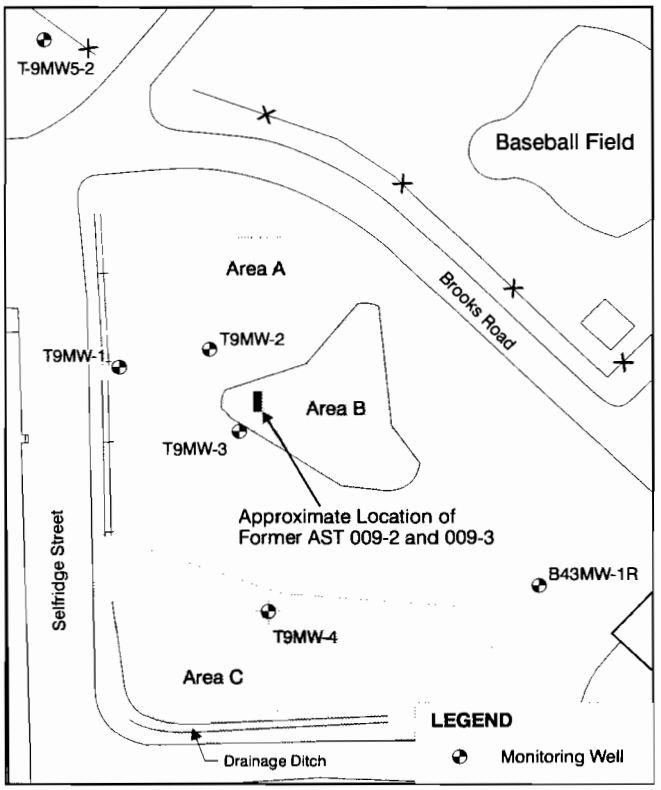


Figure 4: Interim Remedial Action Areas

The horizontal and vertical extent of contamination was evaluated by advancing Geoprobe soil borings in the vicinity of Areas A, B, and C. Soil samples were collected and screened in the field for the presence of petroleum hydrocarbons using a photoionization detector (PID). Samples were also collected from 20% of the soil borings to confirm the results of the PID. Based on field PID readings, the majority of the contaminated soil was encountered at Area B, and within the boundaries and south of Area C. Additional contamination was found approximately 50 feet outside Area B, and at the southeast corner of Area A.

Remedial action activities that occurred during the excavation of areas A, B, and C included: the excavation and removal of contaminated soils; removal of a 60" diameter storm sewer pipeline in Area B to allow removal of contaminated soil surrounding the pipeline; excavation and removal of an underground storage tank (UST) that was discovered in Area C during contaminated soil removal; collection of confirmation samples from the final excavations to ensure that contaminated soils had been removed; proper disposal of all wastes from the site; and restoration of the site.

The estimated volume of soil removed from Area A was 118 cubic yards. The confirmation samples collected from the walls and floor of the final excavation indicated that no VOC or SVOC contamination was present.

The estimated volume of soil removed from Area B was 2,300 cubic yards taken at depths ranging from 6- to 10-feet BGS. Other activities performed at Area B included the excavation and removal of a 6-inch transite sewer line and temporary removal of sections of a 60-inch storm sewer line so that contaminated soil in the vicinity of the lines could be removed. Twenty-nine confirmatory soil samples were collected from all Area B excavations following contaminated soil removal. All confirmatory sample concentrations were below the cleanup goals.

An estimated volume of 1,620 cubic yards of soil was excavated from Area C to a depth of 1- to 12-feet BGS. During the excavations, a 1,000-gallon underground storage tank (UST) and an abandoned 12-inch fuel line were excavated and removed. Approximately 900 gallons of water contaminated with petroleum products were pumped from the tank and disposed off site. Approximately 4,000 gallons of petroleum-contaminated water was pumped from the fuel line and disposed off site. Soil in the vicinity of the tank and line were also excavated. Other structures encountered during the investigation include a building foundation with a partial floor, a 6-inch PVC sewer line, and a 4-inch ductile steel line. Soil contamination was found in the vicinity of these structures and was excavated and removed. The foundation and a portion of the 6-inch line were also removed. A 1.5-inch galvanized lateral water line and transite sanitary sewer lines were also discovered. Several feet of each line were removed to allow for excavation of contaminated soil in the area.

A total of 31 confirmation samples were obtained from the Area C excavations; samples were collected from both the bottom and sidewalls. All the samples were analyzed for VOCs and SVOCs. Two confirmation samples indicated the presence of contaminated soil. Contaminated soils in these areas were then over-excavated and a second round of samples was taken. Confirmatory sample results were all below the project cleanup goals in Area C.

All excavated areas were backfilled with clean material after confirmatory sampling verified that the cleanup goals were achieved. The VOCs and SVOCs delineated during the RI were remediated by the interim remedial action along with petroleum-contaminated soils associated with the open petroleum spill # 9702173. The groundwater in the area is being further evaluated under this spill number as part of the NYSDEC Spills Program.

DESCRIPTION OF THE PREFERRED ALTERNATIVE

No further action for soils with land use restrictions for industrial/commercial use is proposed for the T-9 AOC. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. The transfer documents will contain the following restrictions to ensure that the reuse of the site is consistent with the risk assessment:

- The property will be industrial/commercial use unless permission is obtained from the EPA, NYSDEC, and the New York State Department of Health; and
- The owner or occupant of the property shall not extract, utilize, consume, or permit to be extracted any water from the aquifer below the ground surface within the boundary of the property unless such owner or occupant obtains prior written approval from the New York State Department of Health.

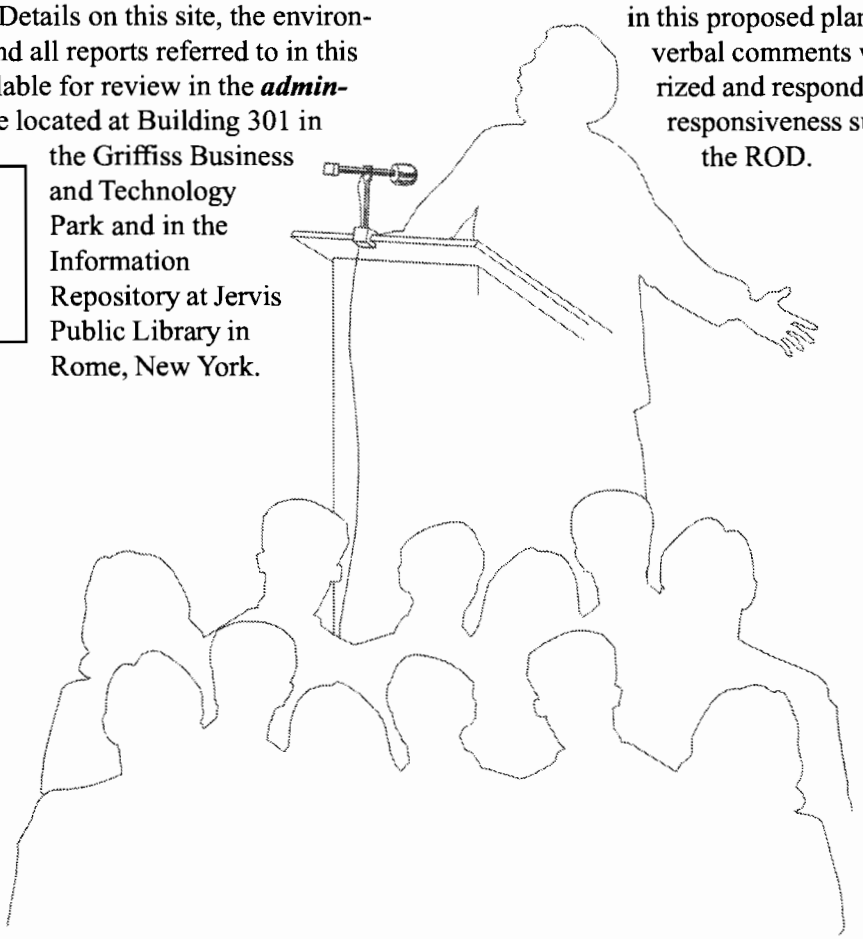
Following the interim remedial action, the majority of the chemicals detected at this AOC do not exceed standards and guidance values and the known source of the groundwater contamination has been removed. In addition, the baseline risk assessment for industrial/commercial use indicates that the levels of contamination present in the soils and groundwater prior to remediation fell within or below EPA's acceptable carcinogenic risk range and pose no noncarcinogenic risk to the utility, construction, landscape, or industrial workers. Therefore, the concentrations of chemicals in the soil following the remedial action and the baseline risk assessment demonstrate that the site contaminants pose no current or potential threat to public health or the environment. Groundwater at the T-9 AOC is being further evaluated under the NYSDEC Spills Program (Spill #9702173).

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take no further action for soils with land use restrictions at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' remedial action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the preferred alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 18 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by XXXX X, 2001.

Public Comment Period

The agencies have set a public comment period from XXXX X, 2001, to XXXX X, 2001, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for X:XX pm, XXXXXX, XXXX X, 2001, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline T-9 Storage AOC

Problem Identification/ Records Search: 1981

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Problem Confirmation and Quantification: 1982

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Field Investigation: 1985

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Griffiss AFB added to National Priorities List: 1987

↓

Health Assessment: 1988

↓

USEPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

↓

Griffiss designated for realignment by BRAC: 1993 and 1995

↓

ATSDR Health Assessment: 1995 Addendum: 1996

↓

Remedial Investigation Report Draft-Final: December 1996

↓

No Further Action Proposed Plan Draft: February 1998

↓

Public Comment Period: February 18, 1998 - March 20, 1998

↓

Closure Certification Report Draft: February 2000

↓

No Further Action for Soils with Land Use Restrictions Proposed Plan Draft-Finat: December 2000

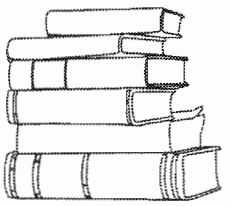
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No Further Action for Soils with Land Use Restrictions Proposed Plan Final: XXXX 2000

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Public Comment Period: XXXX X, 2001 - XXXX X, 2001

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

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Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

T-9 STORAGE AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning T-9 Storage AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing is
to inform you of
the proposed
environmental plan
for the T-9 Storage AOC
at the former
Griffiss AFB,
and to solicit
your comments.

Proposed Plan

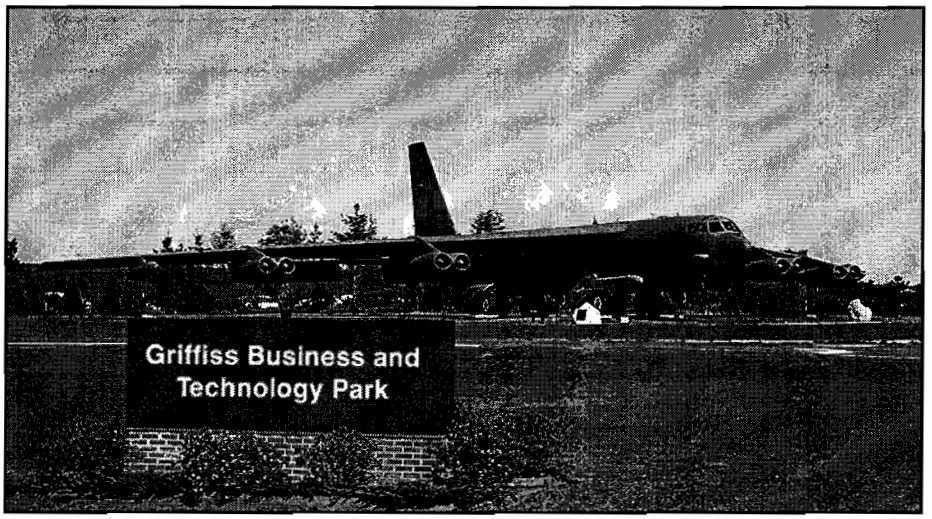
BUILDING 117 AOC

Former Griffiss Air Force Base
Rome, New York
Public Comment Period
XXXXX X, 2001 - XXXXX X, 2001

November 2000

Air Force Recommends No Further Action For Building 117 Source Removal AOC

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This ***proposed plan*** is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies." The document has been prepared in accordance with public participation requirements of the ***Comprehensive Environmental Response, Compensation, and Liability Act*** of 1980, as amended, the ***National Contingency Plan,*** and the former Griffiss Air Force Base (AFB) ***Federal Facility Agreement.***

This proposed plan summarizes the information presented in the ***Technical Memorandum/Predesign Investigation Report*** and the ***Engineering Evaluation/Cost Analysis*** regarding the Building 117 Source Removal ***Area of Concern*** at the former Griffiss AFB in Rome, New York. The designation as a source removal site refers to the previous removal of all aboveground and underground storage tanks from this site. This plan is intended to elicit public comments on the proposal to take no further action at this site. The final decision or ***Record of Decision*** will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Building 117.
- The proposed plan to take no further action at Building 117.
- How you can participate in the final decision process for Building 117.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at Griffiss AFB and perform remediation if necessary.

Technical Memorandum/Predesign Investigation Report
an investigation to evaluate the presence or absence of residual contamination in soil and groundwater at a previous source removal site in order to determine whether or not remediation is required at the site.

Engineering Evaluation/Cost Analysis (EE/CA)
an analysis of removal alternatives for a site.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone***. Shallow groundwater at the former Griffiss AFB flows toward the southwest and discharges into the Mohawk River and New York State Barge Canal drainage system.

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The former Griffiss AFB was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. The Air Force Research Laboratory (AFRL) and the Northeast Air Defense Sector (NEADS) have continued to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998 when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used, and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a basewide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry;*** base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific studies and investigations between 1989 and 1995. ATSDR issued a Public Health Assessment for Griffiss AFB dated October 23, 1995, and an addendum dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of environmental AOCs on base; a scope of work for a Predesign Investigation (PDI) of previous source removal AOCs; a Source Removal Work Plan and Site-Specific Field Operations Plans which include a sampling and analysis plan and a quality assurance project plan; a community relations plan; a Technical Memorandum/PDI Report for each previous source removal AOC; and an EE/CA for each source removal action. The Air Force issued a Final Technical Memorandum/PDI Report and Final EE/CA covering the Building 117 Source Removal AOC to EPA and NYSDEC on February 24, 1995, which incorporated EPA and NYSDEC comments (these reports have not been formally approved by EPA and NYSDEC). An addendum to the Final EE/CA for the Building 117 Source Removal AOC was issued in September 1995.

This No Further Action proposal for soils and groundwater at the Building 117 Source Removal AOC is based on a comparison of levels of contaminants found at the site with contaminant levels found in federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site or in other federal and state advisories, guidance and standards referred to as ***To-Be-Considereds.*** No further action is proposed when the levels of contaminants in soils and groundwater at the site do not exceed the appropriate ARARs or TBCs or are determined not to pose a significant threat to human health or the environment.

One criterion by which petroleum-contaminated soil is considered remediated is its potential impact on groundwater. To be protective of groundwater quality, the soil must not leach contaminants to groundwater at concentrations exceeding acceptable groundwater standards. The New York State Department of Environmental Conservation (NYSDEC) in Spill Technology and Remediation Series (STARS) Memo No. 1, Petroleum-Contaminated Soil Guidance Policy (NYSDEC, 1992) recommends using the Toxicity Characteristic Leaching Procedure (TCLP) to estimate concentrations in groundwater resulting from leaching. Using TCLP, a liquid is extracted or leached from the soil and then analyzed. During the PDI, this methodology was employed and the contaminant concentrations in the extract, or leachate, were then compared to ARARs and TBCs for groundwater.

Agency for Toxic Substances and Disease Registry (ATSDR)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

BUILDING 117 SOURCE REMOVAL AREA OF CONCERN

The Building 117 Source Removal AOC consists of a parking lot and the former location of a large steam-generating plant that operated from the 1940s through 1986. The steam plant, which was located in the west-central portion of the base (see Figure 1), was demolished in 1988 and the parking lot was constructed. Two 25,000-gallon No. 6 fuel oil underground storage tanks (USTs) were installed in 1964 northeast of the steam plant (see Figure 2). These steel tanks were 10 feet in diameter and 44 feet long. The top of the tanks were 6 feet below ground surface (BGS).

Both tanks were removed during the steam plant demolition in 1988. According to interviews with base personnel, any contaminated soil found during excavation of the tanks was removed.

Groundwater in this area flows in a south and southwest direction, and the depth to groundwater ranges from 11.5 feet BGS to 15 feet BGS. The soils are generally silty sand with some clay, cobbles, and gravel.

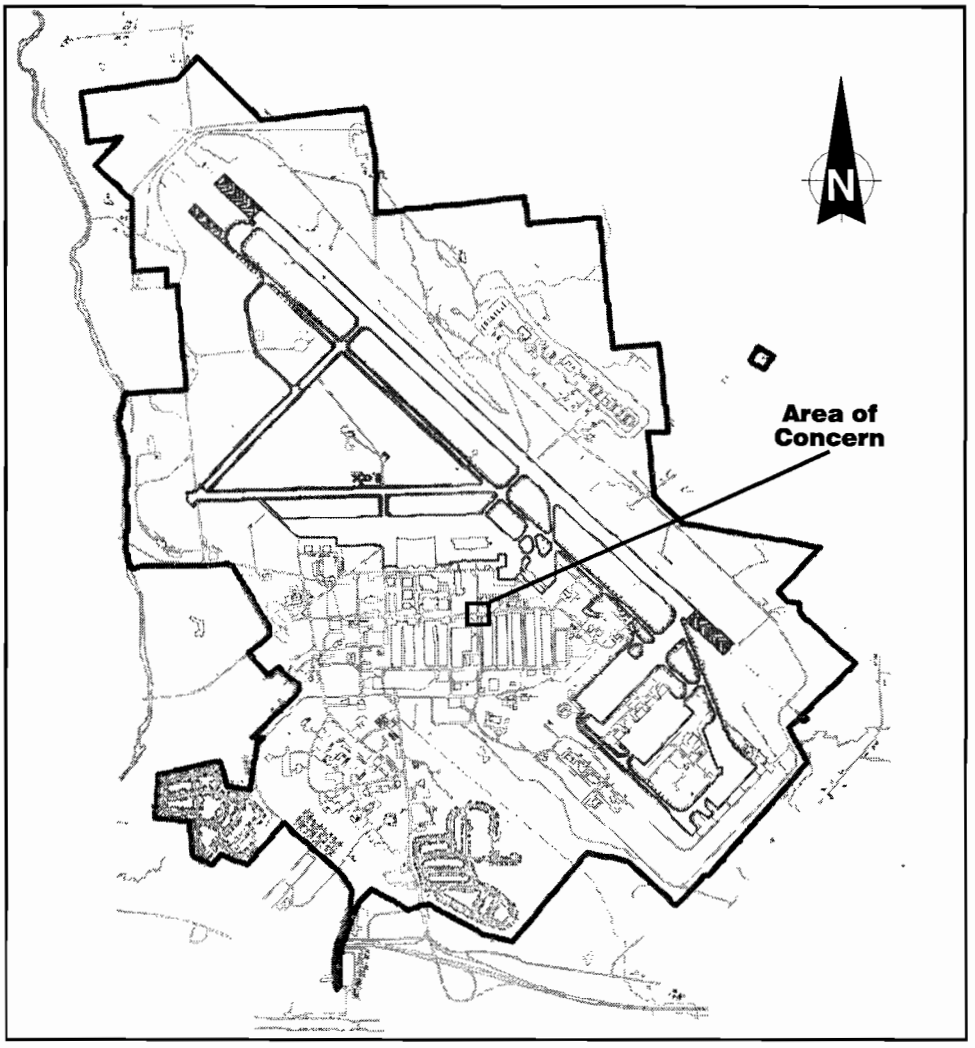


Figure 1: Building 117 AOC is located in the west-central portion of the former Griffiss AFB.

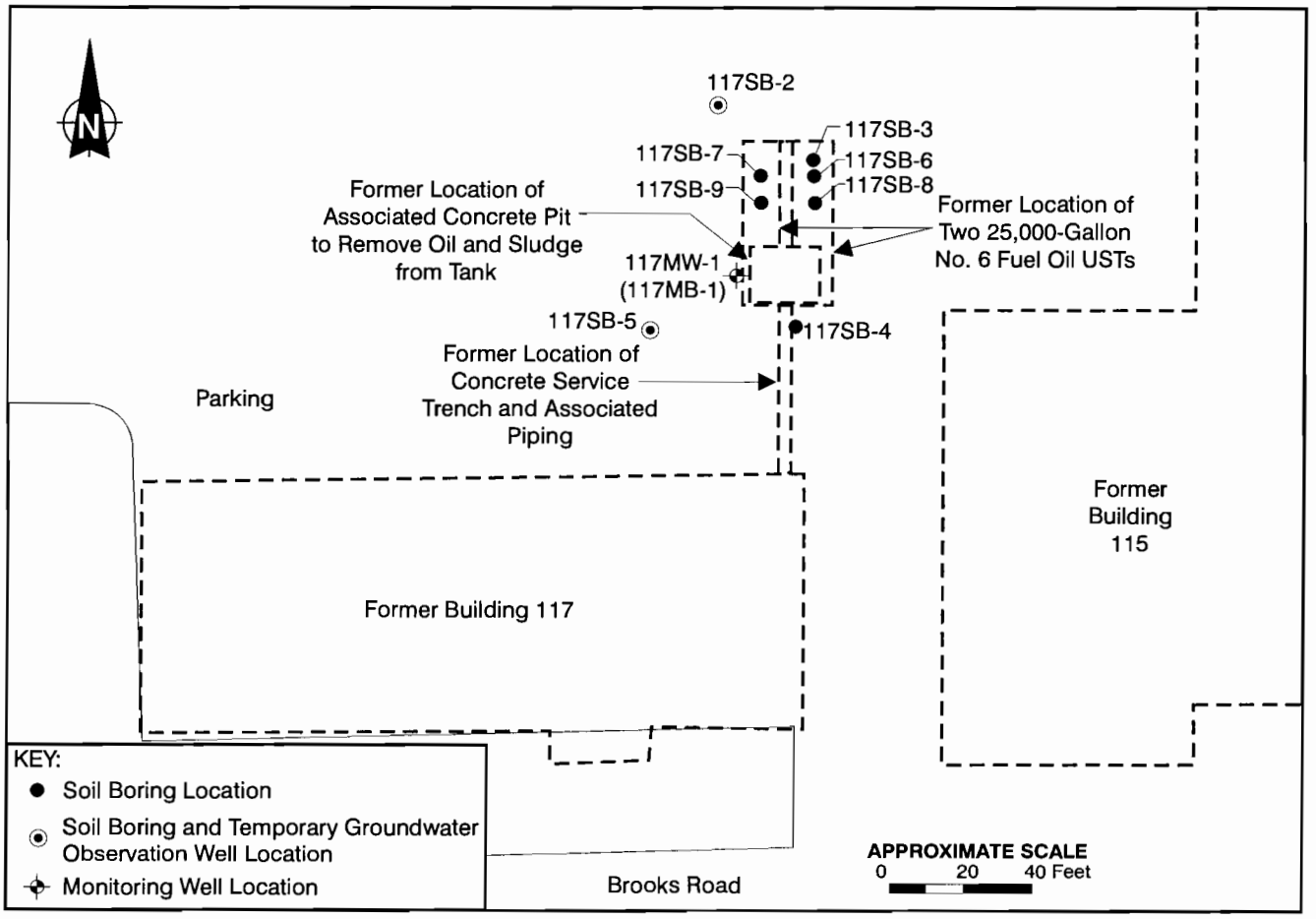


Figure 2: A parking lot is now located at the site where a steam plant (Former Building 117) and two 25,000-gallon underground storage tanks were previously demolished and removed.

SUMMARY OF SITE ACTIVITIES AND ANALYTICAL RESULTS

The PDI was conducted at the AOC in November and December 1993 to evaluate whether petroleum-contaminated soils were removed during the 1988 excavation of the two 25,000-gallon USTs. Five soil borings (117MB-1 and 117SB-2 through 117SB-5) were drilled near the former location of the USTs. The soil borings were advanced to depths of 14 to 23 feet BGS to evaluate the conditions of subsurface soils and to collect samples for chemical and geotechnical analyses. Soil boring 117MB-1 was advanced to a depth of 23 feet BGS and was subsequently converted to monitoring well 117MW-1. Borings 117SB-2 and 117SB-5 were used as temporary groundwater observation wells to identify the presence of ***free product*** in the surficial aquifer at the site.

Free Product
Petroleum products that form a separate light phase (layer) on top of the water column.

Soil Headspace Screening
a field screening technique in which an air monitoring device is used to detect VOCs in a soil sample.

Vadose Zone
the unsaturated area of the ground above the water table.

Groundwater Interface
the planar surface in the ground at which the soil or rock pores become saturated (i.e., where the pore spaces are filled with water).

Volatile Organic Compounds (VOCs)
a group of organic compounds that have a tendency to vaporize readily.

Semivolatile Organic Compounds (SVOCs)
a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

Turbidity
cloudiness caused by a suspension of very fine particles in a liquid. Soil particles suspended in groundwater samples can lead to anomalously high results for metals such as iron that are naturally occurring in the soil.

Samples were collected at 2-foot depth intervals in each soil boring. Based on the results of ***soil head-space screening,*** two soil samples from each borehole were then selected for chemical analysis. In most cases, the sample with the highest headspace reading from the ***vadose zone*** and the sample from the ***groundwater interface*** were chosen for analysis.

Soil samples collected during the PDI were analyzed for TCLP ***volatile organic compounds and semivolatile organic compounds.*** A comparison of these results to regulatory standards and guidance values is provided in the following section.

Soil Leachate Results

Twelve VOCs (1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, hexachloro-butadiene, trichloroethylene, m-xylene, naphthalene, o-xylene, p-xylene, toluene, n-butylbenzene, t-butylbenzene, and tetrachloroethylene) were detected in TCLP leachate from subsurface soil samples collected in November 1993 from borings 117MB-1, 117SB-2, and 117SB-3. Concentrations of these compounds ranged from 0.26 µg/L for toluene to 15 µg/L for naphthalene. The majority of VOCs were detected in soil boring 117MB-1 from samples collected at 8 to 10 feet and 12 to 14 feet BGS. In addition, the VOC analytical results for a majority of the soil samples collected indicated the presence of carbon tetrachloride and chloroform at low levels. An investigation of these results determined that laboratory-introduced contamination was the source for these two compounds. A confirmatory sample collected in May 1994 provided further evidence that carbon tetrachloride and chloroform were not present in the soils at this source removal AOC. No SVOCs were detected in the 1993 soil samples.

Groundwater Results

Thirteen VOCs (1,2,3-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, chloroform, ethylbenzene, naphthalene, p-cymene, sec-butylbenzene, carbon tetrachloride, toluene, trichloroethylene, xylene, and n-propylbenzene) were detected at low concentrations in groundwater samples collected in 1993 from 117MW-1. Naphthalene was detected at the highest concentration of 4 µg/L. The SVOC data was rejected due to the high ***turbidity*** of the groundwater samples and an error in the laboratory SVOC extraction method. The well was redeveloped and sampled again in April 1994 for SVOC analysis. Fourteen SVOCs were detected in the groundwater collected during this resampling effort. Free product was not detected in either of the temporary observation wells.

Further Investigation and Results

Based on the results of the PDI, additional field activities were conducted in March and April 1995 at the Building 117 Source Removal AOC to further characterize surface and subsurface soils. Four additional borings (117SB-6, 117SB-7, 117SB-8, and 117SB-9) were installed at the former tank locations. Soil samples were collected at 2-foot intervals from borings 117SB-8 and 117SB-9 and subjected to soil headspace screening for VOCs. Based on the screening results, soil samples were then collected from borings 117SB-6 and 117SB-7 at the depth intervals with the highest headspace reading in the vadose zone. Soil samples also were collected from borings 117SB-6 and 117SB-7 at the groundwater interface. All four soil samples were submitted for TCLP VOC and SVOC analyses.

Naphthalene was the only organic detected in the leachate from samples collected during the 1995 field effort at a concentration of 6 µg/L (soil sample 117SB-7, 10 to 12 feet BGS).

COMPARISON OF ANALYTICAL RESULTS AND REGULATORY STANDARDS

Soil Leachate

Soil analytical results were compared to cleanup values published in the NYSDEC STARS Memo No. 1. This document states that constituent concentrations in soil should not exceed levels where soil leachate might exceed groundwater standards. For fuel- or gasoline-contaminated soils, the policy further states that if the concentrations of volatile hydrocarbons or semi-volatile hydrocarbons do not exceed the NYS ***groundwater standards or guidance values***, the soil is not considered to impact groundwater quality.

Groundwater Standards and Guidance Values
a standard is a value that has been promulgated and placed into regulation. A guidance value may be used or considered where a standard for a substance or group of substances has not been established.

Only one VOC, naphthalene, was detected (15 µg/L) in the soil leachate (sample 117MB-1F, 8 to 10 feet BGS) at a concentration above the STARS Memo No. 1 guidance value of 10 µg/L. No SVOCs were detected in the leachate from Building 117 Source Removal AOC soils at concentrations exceeding the guidance values.

Groundwater

The NYS Class GA Groundwater Standards were used to assess groundwater quality. Class GA waters are defined as fresh groundwater found in the saturated zone of unconsolidated deposits, consolidated rock, and bedrock. The best use of Class GA waters is as a source of potable water. Therefore, comparison of the groundwater sample analytical results for the Building 117 AOC to Class GA standards is a conservative approach because it is unlikely that groundwater at the former base will be used as a source of potable water. Another potential ARAR for the groundwater would be the NYS Drinking Water Standards.

None of the VOC concentrations detected in the 117MW-1 groundwater sample exceeded NYS groundwater standards or guidance values. In particular, napthalene, which had been detected in the soil leachate, was not detected in the groundwater at concentrations exceeding the NYS groundwater standard, indicating that it does not represent a potential threat to the groundwater. Five SVOCs (benzo[a]anthracene, benzo[b]-fluoranthene, benzo[k] fluoranthene, chrysene, and indeno[1,2,3-cd]pyrene), with concentrations ranging from 0.016 to 0.21 µg/L, exceeded the NYS groundwater guidance value of 0.002 µg/L. The concentration of benzo(a)pyrene, (0.086 µg/L) exceeded the NYS groundwater standard of nondetect. The NYS Drinking Water Standard for the five SVOCs is 50 µg/L. None of these SVOCs had been detected in the TCLP soil leachate at concentrations exceeding the Stars Memo No. 1 guidance values.

Although this site is designated for commercial/industrial use and it is unlikely that groundwater will be used as a source of potable water, a simple risk screening was performed for the SVOCs listed above to estimate the carcinogenic risk to any potential future residents from ingestion of the groundwater. A noncarcinogenic risk screening was not performed because there are no toxicity values for these SVOCs.

EPA's range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to contaminants sometime during their lifetime (cancer toxicity values were derived assuming a lifetime of 70 years). Standard exposure assumptions are generally used for specific scenarios. For this risk screening, the standard exposure assumptions for residential use of groundwater were used, which included an ingestion rate of 2 liters of water per day for a 30-year exposure duration (the high end residence time in an owner-occupied home). Using the approach documented in EPA's Risk Assessment Guidance for Superfund, Human Health Evaluation Manual Part B, December 1991, the total risk associated with ingesting groundwater containing the five SVOCs listed above was calculated as 1 in 100,000 (1×10^{-5}), which is within EPA's acceptable risk range.

DESCRIPTION OF PREFERRED ALTERNATIVE

No further action is proposed for soils and groundwater at the Building 117 Source Removal AOC. Residual levels of contaminants in the soil do not exceed soil cleanup guidance values, with the exception of naphthalene which slightly exceeded the guidance value in one sample. Therefore, since residual levels of contaminants in the soil are limited in extent and do not pose a risk for continued groundwater contamination, the soils are not considered to be a current or potential threat to public health or the environment.

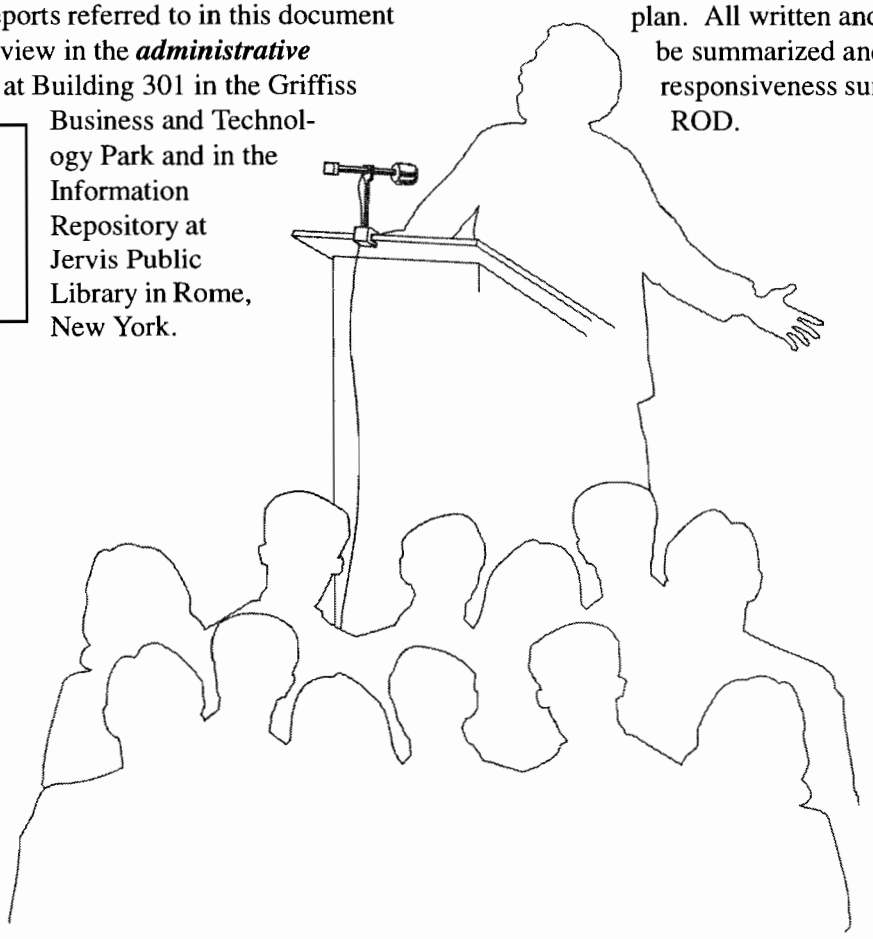
No VOCs and only five SVOCs slightly exceeded the Class GA groundwater standards, and none exceeded the NYS Drinking Water Standards. A risk screening analysis indicated no unacceptable risk to potential future residents from ingestion of groundwater at this site. In addition, none of these constituents was detected in the soil leachate, indicating that there is no existing source of groundwater contamination at the Building 117 Source Removal AOC.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take no further action at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' no further action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the no further action alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 14 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by XXXX X, 2000.

Public Comment Period

The agencies have set a public comment period from XXXX X, 2001, to XXXX X, 2001, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for X:XX pm, XXXXXX, XXXX X, 2001, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Building 20

Problem Identification/ Records Search: 1981

↓

Problem Confirmation and Quantification: 1982

↓

Field Investigation: 1985

↓

Griffiss AFB added to National Priorities List: 1987

↓

Health Assessment: 1988

↓

EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

↓

Griffiss designated for realignment by BRAC: 1993 and 1995

↓

ATSDR Health Assessment: 1995 Addendum: 1996

↓

Source Removal Technical Memorandum, Predesign Investigation/Final Engineering Evaluation/Cost Analysis (EE/CA) Reports: February 1995

↓

Addendum to Final EE/CA Report: September 1995

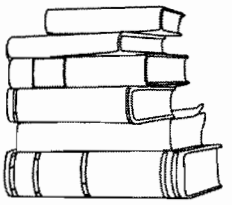
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No Further Action Proposed Plan Draft - Final: November 2000

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Public Comment Period: XXXX X, 2001 - XXXX X, 2001

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

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Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Building 117 Source Removal AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Building 117. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Building 117
Source Removal AOC
at the former
Griffiss AFB,
and to solicit
your comments.

Proposed Plan

LANDFILL 6 AOC

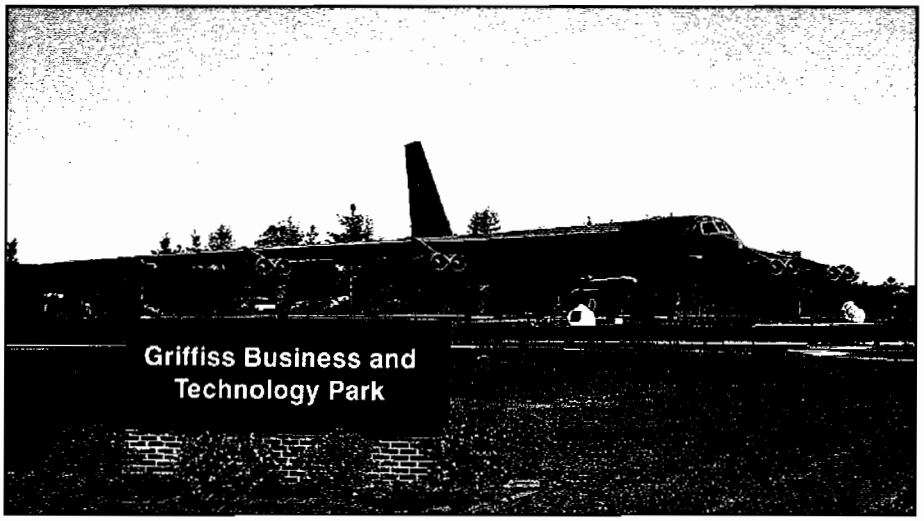


Former Griffiss Air Force Base
Rome, New York
Public Comment Period
November 17, 2000 - December 18, 2000

November 2000

Air Force Recommends Remedial Action for Soils at the Landfill 6 AOC

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This ***proposed plan*** is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies." The document has been prepared in accordance with public participation requirements of the ***Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, the National Contingency Plan***, and the former Griffiss Air Force Base (AFB) ***Federal Facility Agreement***.

The preferred remedial action stated in this proposed plan was developed in accordance with EPA Presumptive Remedy Guidance for Military Landfills, dated April 29, 1996, for the expeditious cleanup of sites that are similar in character to a large number of CERCLA sites that have already been remediated. Presumptive remedies are preferred technologies for common categories of sites based on historical patterns of remedy selection and EPA's scientific and engineering evaluations of performance data on technology implementation.

This plan is intended to elicit public comments on the proposal to take remedial action for soils at the site. Groundwater, which requires further evaluation, will be addressed in a future study. The final decision or ***Record of Decision*** will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Landfill 6.
- The proposed plan to take remedial action at Landfill 6.
- How you can participate in the final decision process for Landfill 6.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone***.

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priorities List.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of ***Areas of Concern*** on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a ***baseline risk assessment***; a community relations plan; an RI report; a work plan and the report for a supplemental investigation; and a Landfill Cover Investigation Report. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The Final Landfill Cover Investigation Report was delivered on December 8, 1997, and the final Supplemental Investigation Report was delivered on July 24, 1998.

This proposed plan for remedial action is based on an evaluation of potential threats to human health and the environment due to contamination in the soil at the Landfill 6 AOC and adjacent areas. During the RI, a site-specific baseline risk assessment (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. The risk assessment for this site evaluated an unrestricted use scenario. In the RI report, the levels of contaminants were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), sediments, or air. Therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To- Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered. This comparison was used in the selection of the preferred remedial action.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

LANDFILL 6 AREA OF CONCERN

Landfill 6 is an approximately 8-acre area located in the southern portion of the former Griffiss AFB between Perimeter Road and Three Mile Creek (see Figures 1 and 2). The landfill was in operation from 1955 to 1959. Disposal activities were conducted in two areas separated by a dirt access road that passes along the southern boundary of the landfill and bisects the northern area of the landfill. The landfill is unlined, but the southern areas of the landfill are capped. The majority of disposal activity occurred on a hillside north and east of the road; between 38,000 and 62,000 cubic yards of hardfill and general refuse were placed on the ground and burned in this area. The layer of waste and burned residue is estimated to be 5 to 10 feet thick. In the 1980s, fuel-contaminated soils were disposed to a depth of 3 feet in the central and southern portions of Landfill 6, and in 1986 a clay cap was constructed over this disposal area. According to the technical specifications for the final disposal and capping of the fuel-contaminated soils area, the fuel-contaminated fill was placed in compacted 6-inch-thick layers to a total depth of 3 feet below ground surface (BGS). The contaminated fill was covered with a 12-inch-thick clay layer, which was then covered with at least 6 inches of topsoil and seeded with grass. The remaining areas of Landfill 6 are not capped. A hardfill area containing construction and other debris is located adjacent to the northwest side of Landfill 6. The landfill is currently well vegetated with grasses, low vegetation, and trees in the area north of the access road and woodlands in the area west of the access road.

The topography at the Landfill 6 AOC tends toward the southwest, with 40 feet of relief occurring across the site. Surface water runoff follows the topography, flowing across the site toward Three Mile Creek. Based on the groundwater data from seven monitoring wells at the site, groundwater flows south-southwest toward Three Mile Creek. Groundwater was encountered at depths of 9 to 60.5 feet BGS, and groundwater elevations declined approximately 9 feet across the site. Site soils consist of brown, silty sand to a depth of 2 feet BGS, and brown, fine sand with variable silt and gravel to depths of 2 to 74 feet BGS.

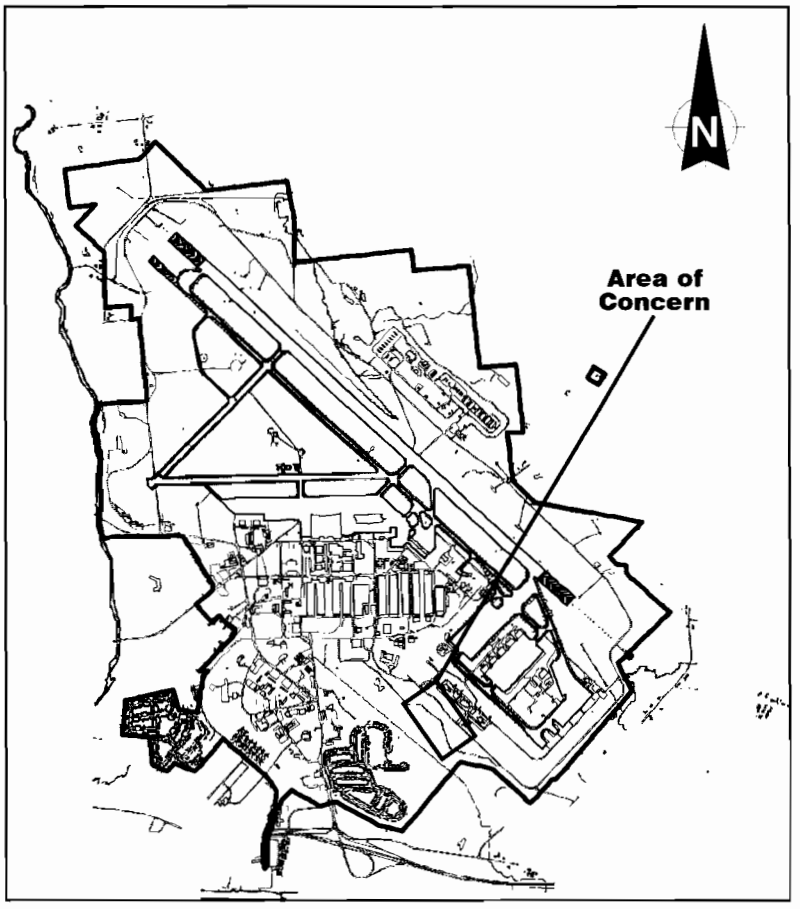
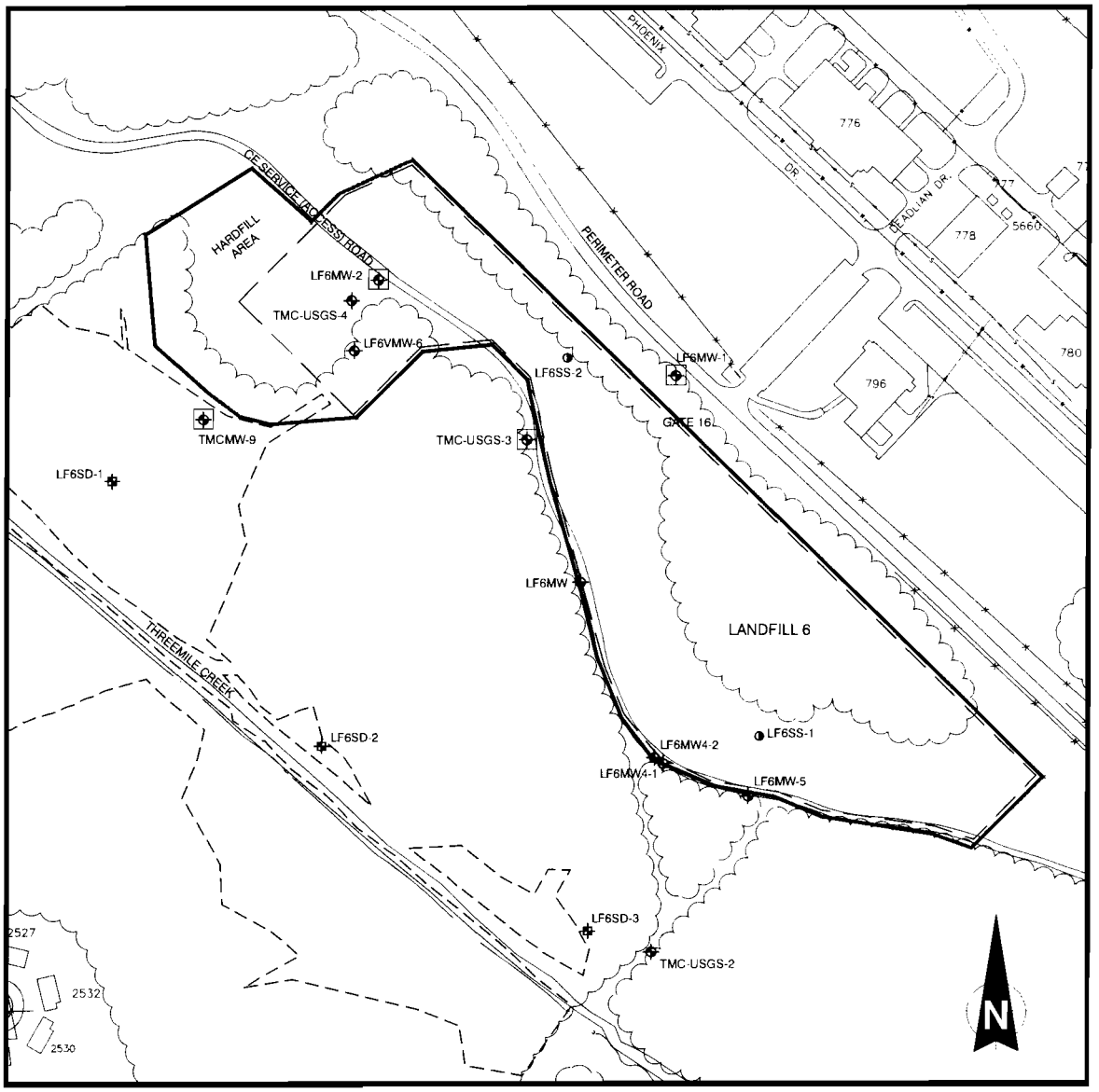


Figure 1: Landfill 6 AOC is located in the southern portion of the former Griffiss AFB.



LEGEND

- SUPPLEMENTAL INVESTIGATION MONITORING WELL
- RI MONITORING WELL RESAMPLED DURING SUPPLEMENTAL INVESTIGATIONS
- RI MONITORING WELL
- RI SURFACE SOIL SAMPLE (Planned Sediment Sample)
- RI SURFACE SOIL SAMPLE
- FENCE
- APPROXIMATE LIMITS OF LANDFILL
- AREA TO BE CAPPED
- JURISDICTIONAL WETLANDS BOUNDARY

SCALE IN FEET

0 300 600 900

Figure 2: Landfill 6 AOC

SUMMARY OF SITE ACTIVITIES

A groundwater monitoring well (TMCMW-9) was installed at Landfill 6 in 1981. Groundwater samples collected in 1982 indicated the presence of phenols and dissolved chromium, copper, and zinc. A passive soil gas survey performed in 1993 indicated the presence of petroleum fuel constituents.

In 1994, an RI was performed. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any remedial action was necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions. The RI included a geophysical survey consisting of a magnetometry survey and ground-penetrating radar (GPR) survey; a passive soil gas survey; sampling and analysis of surface soil (0-to-1-foot depth interval); and the installation of six new groundwater monitoring wells.

The results of the geophysical survey indicated discrete and widely distributed anomalies indicative of relatively shallow metallic objects in the soil. In addition, two strong subsurface reflections were detected in the southern area of the landfill. The passive soil gas survey indicated the presence of toluene and benzene emissions.

One surface soil sample was collected from each of two erosion gullies present at Landfill 6 (samples LF6SS-1 and LF6SS-2). Analytical results indicated the presence of 12 ***semivolatile organic compounds***, seven pesticides/PCBs, 19 metals, cyanide, and petroleum hydrocarbons. Two of the metals were detected at concentrations exceeding the most stringent criterion (see Table 1).

Three planned sediment sampling locations (LF6SD-1, LF6SD-2, and LF6SD-3) were sampled for surface soils downhill of Landfill 6. Although the area is within the jurisdictional wetlands associated with Three Mile Creek, the area was dry and the samples were considered to be soil, not sediments. Two depth intervals were sampled from each location, 0 to 0.5 foot BGS and 0.5 to 1.0 foot BGS. Analytical results indicated the presence of four ***volatile organic compounds***, 12 SVOCs, 12 pesticides/PCBs, 23 metals, cyanide, and petroleum hydrocarbons. One VOC, two SVOCs, and 12 metals were detected at concentrations exceeding the most stringent criterion (see Table 2).

Semivolatile Organic Compounds (SVOCs)
a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

Volatile Organic Compounds (VOCs)
a group of organic compounds that have a tendency to vaporize readily.

Seven groundwater monitoring wells were sampled during the RI. Three VOCs, six metals, total glycols, and petroleum hydrocarbons exceeded the most stringent criterion. The groundwater associated with Landfill 6 will be evaluated separate from the soils. The groundwater is being evaluated for individual sites at the former Griffiss AFB on the basis of location and direction of groundwater flow. Wells will be considered in groups according to their location within given groundwater drainage areas and their relationship to individual sites or groups of sites. There are eight groundwater drainage areas on the former base; the Landfill 6 AOC falls within the east side of the Three Mile Creek drainage basin and will be evaluated in this context.

In 1997, an RI Supplemental Investigation was performed. During the investigation, two test pits were excavated to determine the source of two significant subsurface geophysical anomalies detected during the RI.

Table 1
COMPOUNDS EXCEEDING GUIDANCE VALUES
LANDFILL 6 AOC
SURFACE SOIL SAMPLES (Erosion Gullies)

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Metals (mg/L)			
Chromium, hexavalent	0.5	1/2	0.45[a]
Molybdenum	14.5	1/2	ND[a]

[a] Background screening concentration.

Key:
ND = Nondetect

Table 2
COMPOUNDS EXCEEDING GUIDANCE VALUES
LANDFILL 6 AOC SOIL SAMPLES
(Downhill of Landfill 6)

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
VOCs (µg/kg)			
Acetone	6 J - 470 J	2/6	200 [a]
SVOCs (µg/kg)			
Benzo(a)anthracene	170 J - 250 J	1/6	224 [a]
Benzo(a)pyrene	69 J - 290 J	3/6	61 [a]
Metals (mg/kg)			
Arsenic	2.9 - 22 J	5/6	4.9 [b]
Barium	51 - 523	2/6	300 [b]
Beryllium	0.25 J - 1.07 J	3/6	0.64 [b]
Cadmium	0.55 J - 2.9 J	2/6	1.1 [b]
Calcium	1,600 - 24,700	1/6	23,820 [b]
Copper	13.4 - 68	3/6	43 [b]
Lead	11 - 69	3/6	36 [b]
Mercury	0.087 J - 0.63	5/6	0.1 [b]
Selenium	0.33 J - 2.7 J	1/6	2 [a]
Silver	0.45 J - 1.17 J	1/6	1.1 [b]
Strontium	6.61 - 195	2/6	55 [b]
Zinc	54 - 169	3/6	120 [b]

[a] NYS-recommended soil cleanup objective.
[b] Background screening concentration.
Key:
J = Estimated concentration.

No drums were encountered in the test pits; however, a petroleum odor was noticed at 6 feet BGS and field readings obtained with a photoionization detector ranged from 100 parts per million (ppm) to 400 ppm. Also, three large steel pipes ranging from 6 to 10 feet in length were located in one test pit. Nothing was found in the other test pit.

A Landfill Cover Investigation performed in 1997 included the following tasks: historical records search, field survey, aerial photographic survey, auger investigation, permeability sample collection, and a landfill performance model analysis. The investigation further defined the areal extent of the landfill and revealed that the thickness of the existing landfill cover ranges from 1.7 to 4 feet.

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the Landfill 6 AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils and soil gas at the site.

Groundwater contamination has been discovered originating from the landfill. This contamination poses a risk under the reuse scenario as presented in the RI, which includes consumption of groundwater. Groundwater contamination emanating from the landfill will be evaluated and addressed, together with groundwater and surface water contamination from other sources in the area, under a separate operable unit and not discussed in this proposed plan. A feasibility study (FS) is underway to evaluate the groundwater contamination at Landfill 6, in conjunction with the groundwater contamination found upgradient at Building 774, and the possible impacts to Three Mile Creek. Various remedial alternatives such as subsurface barriers, collection trenches, or extraction wells, along with other technologies, will be evaluated to mitigate the groundwater contamination and impacts to the creek. The fact that groundwater contamination does exist and a risk has been shown was a consideration in the selection of the preferred remedial action.

SUMMARY OF SITE RISK (Cont.)

Also, the petroleum-contaminated soil confirmed during the test pit investigations (which was not analytically tested) was another concern that was factored into the selection of the preferred remedial action.

Human Health Risk Assessment
Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Landfill 6 AOC could pose health risks to individuals under current and proposed future land uses if no remediation occurs. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification—identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment—estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment—determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization—summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soils and soil gas at the site were considered chemicals of potential concern with the exception of inorganics detected at concentrations less than twice the mean background concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). As a class, petroleum hydrocarbons were not selected as a chemical of concern; but the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated. The presence of petroleum hydrocarbons as a class of contaminants was considered in the selection of the preferred remedial action.

As proposed in the Griffiss Redevelopment Planning Council redevelopment scenario, the current and future land use designation for the Landfill 6 AOC is open space. The human health risk assessment evaluated exposure to potential residential, recreational, and occupational (landscape worker) populations. The various exposure scenarios for each population are described in Table 3. Intake assumptions, which are based on EPA guidance, are more fully described in the RI.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Landfill 6 AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result

Table 3
LANDFILL 6 AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

RESIDENTIAL RECEPTOR	RECREATIONAL RECEPTOR	LANDSCAPE WORKER
Adult, Child, Youth, Adolescent	**Adult, Child, Youth, Adolescent**	**Adult**
• Inhalation of airborne chemicals • Inhalation of fugitive dust from surface soil	• Inhalation of airborne chemicals • Inhalation of fugitive dust from surface soil • Incidental ingestion of surface soil • Dermal contact with surface soil	• Inhalation of airborne chemicals • Inhalation of fugitive dust from surface soil • Incidental ingestion of surface soil • Dermal contact with surface soil

of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. If either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as a point of departure for determining remediation goals for alternatives.

Results of Site-Specific Health Risk Assessment

Carcinogenic Risk

Because carcinogenic risks are based on total lifetime exposure, the calculated risk to the adult residential and recreational receptors (30-year exposure assumption versus a 6-year exposure assumption for a child) was used; therefore, only the carcinogenic risks to adults were presented in the RI report. Additional specific exposure assumptions are described in the RI report.

Although it is unlikely that the land next to Landfill 6 will be developed, the hypothetical future use of this land for residential purposes was considered. The carcinogenic risks to adult residential receptors from inhalation of airborne chemicals and inhalation of fugitive dust were calculated as 1 in 100,000,000 (1×10^{-8}) and 6 in 1,000,000 (6×10^{-6}), respectively, which are below or within the NCP's carcinogenic risk range of 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) for Superfund sites.

The total carcinogenic risk to adult recreational receptors at Landfill 6 from the combined air and soil pathways was calculated as 6 in 100,000 (6×10^{-5}), which is within EPA's target risk range.

The total carcinogenic risk to occupational landscape workers (25-year exposure assumption) at Landfill 6 from the combined air and soil pathways was calculated as 2 in 100,000 (2×10^{-5}), which is within EPA's target risk range.

Although the carcinogenic risk range for human health was not exceeded, the carcinogenic risk would be higher if the groundwater risk assessment was included in this proposed plan.

Noncarcinogenic Risk

For noncarcinogenic risks, the child is the receptor generally assumed to have the greatest estimated risk; therefore, HIs were calculated for the adult, adolescent, youth, and child. The total HIs for the future residential adult, adolescent, youth, and child exposed to airborne chemicals and fugitive dust were calculated as 0.02, 0.02, 0.05, and 0.08, respectively, which are all below the acceptable level of 1.

The total HIs for the current and future recreational adult, adolescent, youth, and child were calculated as 0.2, 0.2, 0.2, and 0.8, respectively, which are all below the acceptable level of 1.

The total HI for a landscape worker was 0.1, which is below the acceptable level of 1.

The results of the human health risk assessment indicate that chemicals detected in the air and soil do not present a risk to future residents or current and future recreational receptors and landscape workers. Quantitative evaluation of risk is subject to several conservative assumptions and should not be considered an absolute measure of risk.

Although the noncarcinogenic risk range for human health was not exceeded, the noncarcinogenic risk would be higher if the groundwater risk assessment was included in this proposed plan.

SUMMARY OF SITE RISK (Cont.)

Uncertainties

Uncertainties exist in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and health-protective assumptions throughout the entire risk assessment process results in an assessment that is protective of human health and the environment. Examples of uncertainties associated with the risk assessment for this AOC include (1) Chemical samples were collected from the suspected source of contamination rather than through random sampling, which may result in a potential overestimation of risk; (2) The hazard indices risks associated with dermal contact with soil were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (3) The models used in the RI are likely to overestimate exposure point concentrations in air, which would cause an overestimation of risk for the inhalation pathway; and (4) Two of three soil sampling locations, although dry at the time of sampling, are subject to periodic flooding, which would limit human contact, especially through exposure to fugitive dusts. This may result in a potential overestimation of risk.

Ecological Risk Assessment

A baseline risk assessment for ecological receptors at the Landfill 6 AOC was conducted during the RI. The environmental evaluation modeled risks to the raccoon, shrew, and American woodcock from exposures to surface soil. The HQs indicative of risks to the raccoon were calculated to be below 1; therefore, the potential for adverse impact on this ecological receptor is considered to be insignificant. The HQ exceeded 1 for the short-tailed shrew for two out of over 40 chemicals (2,3,7,8-tetrachlorodibenzodioxin [TCDD], HQ = 39; selenium, HQ = 1.6). The HQ exceeded 1 for the American woodcock for one chemical (2,3,7,8-TCDD, HQ = 8.0). These values indicate a potential for adverse effects.

Modeling of bioaccumulation to higher-order species was not performed, nor was the cumulative effect of multiple contaminants considered; this tends to underestimate the risk to ecological receptors. Also, the risks to ecological receptors in impacted areas (e.g., wetlands and Three Mile Creek) were not considered in this AOC's risk assessment but were considered in the selection of the preferred remedial action.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

REMEDIAL ACTION

Remedial Action Objectives

The following are the remedial action objectives developed for this site based upon the use of the presumptive remedy guidance and the site data:

- Consolidation of various debris and waste areas into the main landfill boundary in order to reduce the area to be capped and the potential for nearby wildlife and human populations to be exposed to the landfill mass;
- Reduce infiltration of rain water and snow-melt water through the landfill mass in order to minimize the potential for leachate generation and groundwater contamination; and
- Monitoring the groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site to evaluate the effectiveness of the presumptive remedy.

Description and Evaluation of Remedial Action Alternatives

CERCLA regulations mandate that a remedial action must be protective of human health and the environment, cost effective, and utilize permanent solutions and treatment technologies to the maximum extent practicable. These regulations also establish a preference for remedial actions that employ, as a principal element, treatment to permanently and significantly reduce the volume, toxicity, or mobility of contaminants at a site. As part of the presumptive remedy approach, this proposed plan evaluates a No Action scenario as dictated by CERCLA and compares it to the presumptive remedy alternative. Note that the risk associated with groundwater contamination at the site will be addressed and evaluated under a separate operable unit. However, the fact that groundwater contamination does exist and a risk has been shown was a consideration in the selection of the preferred remedial action.

A summary of the two alternatives is presented below.

Under the No Action Alternative, no remedy would be implemented at the Landfill 6 AOC. Based on the levels of contaminants in the surface and subsurface soils and the results of the baseline risk assessment for soils, Landfill 6 AOC poses no risk to the human population. However, there is a risk to ecological receptors. Risks due to groundwater will be evaluated in a future study.

The Presumptive Remedy Alternative includes (1) installation of a low-permeability soil cover in accordance with 6 NYCRR Part 360 landfill closure and post-closure regulations dated November 26, 1996; this action would include placing a minimum of 18 inches of low-permeability soil and 6 inches of topsoil over the entire landfill cover to reduce the amount of water infiltration through the landfill; (2) maintenance of the cover and long-term monitoring of the groundwater, surface water, and sediment in accordance with 6 NYCRR Part 360 landfill post-closure regulations dated November 26, 1996; (3) monitoring the groundwater and stream environment downgradient of the site to evaluate the effectiveness of the presumptive remedy; and (4) implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit inappropriate use of the area and groundwater, and to ensure the soil cover is not damaged and the area is maintained as a landfill. Any wetlands disturbed during the remedial action will be restored. In addition, if leachate discharges are observed during routine walkovers of the landfill, leachate management will be considered at that time. This alternative satisfies the first eight "threshold" criteria listed below and ensures compliance with applicable regulations.

Evaluation Criteria for Remedial Action Alternatives

Remedial alternatives are assessed on the basis of both a detailed and a comparative analysis pursuant to the NCP. The detailed analysis of Landfill 6 consisted of (1) an assessment of the individual alternatives against nine evaluation criteria and (2) a comparative analysis focusing upon the relative performance of each alternative against the criteria.

In general, the following "threshold" criteria must be satisfied by an alternative for it to be eligible for selection:

1. Overall protection of human health and the environment addresses whether a remedy provides adequate protection and describes how risks posed through each exposure pathway (based on a reasonable maximum exposure scenario) are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.
2. Compliance with ARARs addresses whether a remedy would (1) meet all of the ARARs or (2) provide grounds for invoking a waiver.

In addition, the following "primary balancing" criteria are used to make comparisons and identify the major trade-off among alternatives:

3. Long-term effectiveness and permanence refers to the ability of a remedy to maintain reliable protection of human health and the environment over time once cleanup goals have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.
4. Reduction of toxicity, mobility, or volume via treatment refers to a remedial technology's expected ability to reduce the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants at the site.
5. Short-term effectiveness addresses (1) the period of time needed to achieve protection and (2) any adverse impacts on human health and the environment that may be posed during the construction and implementation periods until cleanup goals are achieved.
6. Implementability refers to the technical and administrative feasibility of a remedy, including the availability of materials and services needed.
7. Cost includes estimated capital, operation and maintenance, and present-worth costs.

Finally, the following "modifying" criteria are considered fully after the formal public comment period on the Proposed Plan is complete:

8. State acceptance indicates whether, based on its review of the RI and the Proposed Plan, the State supports or opposes the preferred alternative and/or has identified any reservations with respect to the preferred alternative.
9. Community acceptance refers to the public's general response to the alternatives described in the Proposed Plan and the RI reports. Factors of community acceptance include support, reservation, or opposition by the community.

SELECTION OF THE PREFERRED ALTERNATIVE

The proposed remedial action alternative for the Landfill 6 AOC is the Presumptive Remedy described above. The proposed remedial action alternative for soils at the Landfill 6 AOC is the Presumptive Remedy described above. In addition, a long-term monitoring program, including groundwater, surface water, sediment, and biota, will be established in accordance with NYCRR Part 360 regulations.

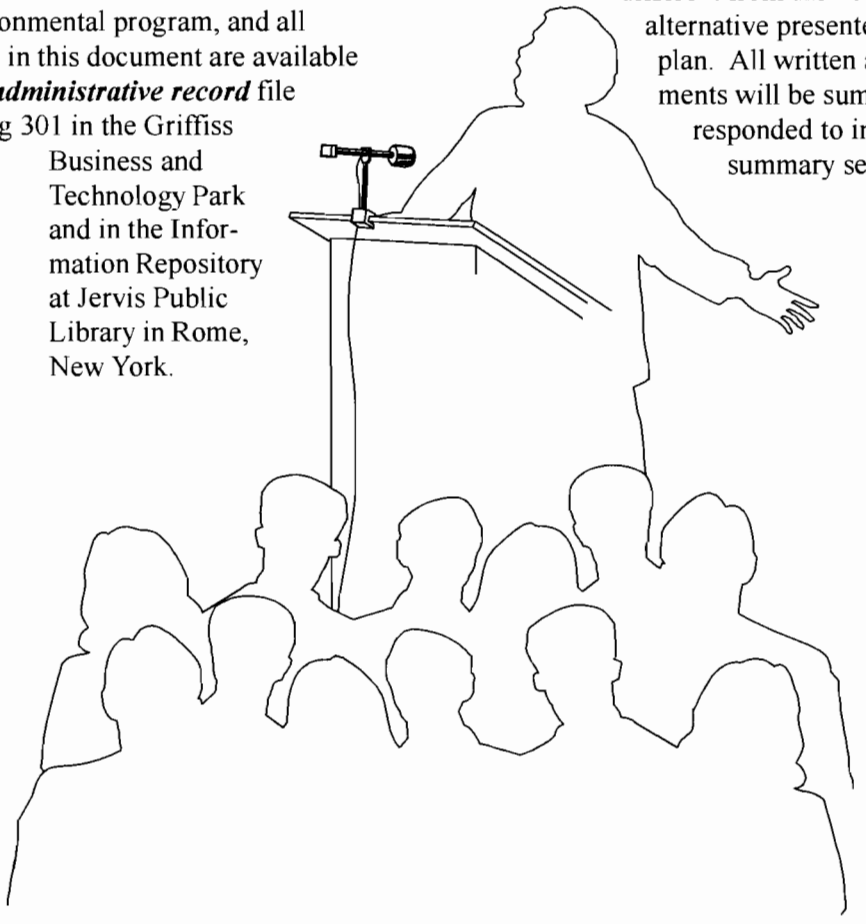
This alternative may benefit Three Mile Creek because it is expected to reduce leachate generation, which in turn will reduce the potential for transporting contaminants from the landfill to the creek via groundwater migration. The first eight "threshold" criteria that make an alternative eligible for selection are satisfied by the Presumptive Remedy. Community acceptance (criterion 9) cannot be determined prior to the public meeting.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take no further action at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' no further action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the no further action alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 14 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by December 18, 2000.

Public Comment Period

The agencies have set a public comment period from November 17, 2000, to December 18, 2000, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for 5:00 pm, December 6, 2000, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Landfill 6

Problem Identification/ Records Search: 1981

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Problem Confirmation and Quantification: 1982

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Field Investigation: 1985

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Griffiss AFB added to National Priorities List: 1987

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Health Assessment: 1988

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EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

|

Griffiss designated for realignment by BRAC: 1993 and 1995

|

ATSDR Health Assessment: 1995 Addendum: 1996

|

Remedial Investigation Report Draft-final: December 1996

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Landfill Cover Investigation Report Final: December 1997

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Supplemental Investigation Report Final: July 1998

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Remedial Action Proposed Plan Final: November 2000

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Public Comment Period: November 17, 2000 December 18, 2000

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

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Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Landfill 6 AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Landfill 6 AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Landfill 6
AOC at the former
Griffiss AFB,
and to solicit
your comments.

Proposed Plan

LANDFILLS 2/3 AOC

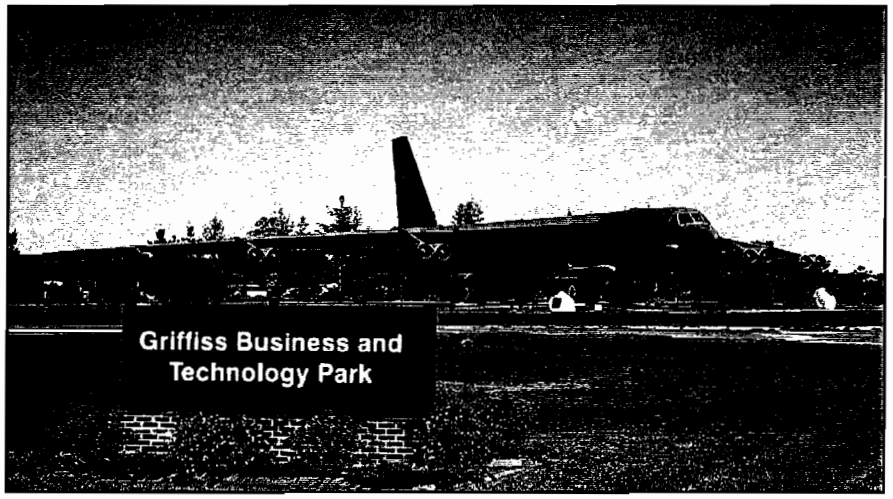


Former Griffiss Air Force Base
Rome, New York
Public Comment Period
February 7, 2000 - March 8, 2000

February 2000

Air Force Recommends Remedial Action at the Landfills 2/3 AOC

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This ***proposed plan*** is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies." The document has been prepared in accordance with public participation requirements of the ***Comprehensive Environmental Response, Compensation, and Liability Act of 1980, the National Contingency Plan***, and the former Griffiss Air Force Base (AFB) ***Federal Facility Agreement***.

The preferred remedial action stated in this proposed plan was developed in accordance with EPA Presumptive Remedy Guidance for Military Landfills, dated April 29, 1996, for the expeditious cleanup of sites that are similar in character to a large number of CERCLA sites that have already been remediated. Presumptive remedies are preferred technologies for common categories of sites based on historical patterns of remedy selection and EPA's scientific and engineering evaluations of performance data on technology implementation.

This plan is intended to elicit public comments on the proposal to take remedial action at the site. The final decision or ***Record of Decision*** will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Landfills 2/3.
- The proposed plan to take remedial action at Landfills 2/3.
- How you can participate in the final decision process for Landfills 2/3.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone***.

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priority List.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of ***Areas of Concern*** on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a baseline risk assessment; a community relations plan; an RI report; a work plan and the report for a supplemental investigation; and a Landfill Cover Investigation Report. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The Final Landfill Cover Investigation Report was delivered on December 8, 1997, and the Final Supplemental Investigation Report was delivered on July 24, 1998.

This proposed plan for remedial action is based on an evaluation of potential threats to human health and the environment due to contamination in the soil, sediment, surface water, and groundwater media at the Landfill 2/3 AOC and adjacent areas. During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. The risk assessment for this site evaluated an unrestricted-use scenario. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), sediments, or air. Therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered. This comparison was used in the selection of the preferred remedial action.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

LANDFILLS 2/3 AREA OF CONCERN

Landfills 2/3 are located in the east-central portion of the former Griffiss AFB (see Figure 1). Because Landfill 3 is located within the boundary of Landfill 2, the two units are designated as a single AOC (see Figure 2). The approximately 13-acre site is covered by grasses and surrounded by woodlands. The landfills are unlined, but three areas of Landfill 2 are capped with up to 1 foot of natural soils and clay.

Landfill 2 operated from 1973 to 1982. An area formerly used as a skeet-shooting range is located in the northern portion of Landfill 2. Hardfill, primarily demolition and construction debris, was disposed of in the southern portion of Landfill 2 using the area method, whereby debris is placed on the ground surface and periodically covered with soil. Other solid wastes were disposed of in trenches and covered with soil in both the northern and southern portions of Landfill 2. In 1982, on-board waste from overseas aircraft were boiled and disposed of in one trench in the northern portion of Landfill 2.

Landfill 3 is an asbestos cell located within the eastern portion of Landfill 2. Landfill 3, which operated from 1980 to 1981, received approximately 1 ton of asbestos wastes from demolition activities. The wastes were reportedly wetted, double-bagged, and disposed of in pits approximately 8 feet deep.

The Landfills 2/3 AOC topography tends toward the southwest, with 40 feet of relief occurring across the site. A portion of the northern section of the site drains to the northeast toward a tributary of Slate Creek, which in turn drains into Six Mile Creek. The remainder of the site drains south directly to the floodplain of Six Mile Creek, approximately 1 mile from its confluence with the New York State Barge Canal. Areas to the west, southwest, and northeast were identified as wetlands in the RI report. Groundwater has been encountered at depths ranging from 8 to 49 feet below ground surface (BGS).

Site soils consist of brown sandy silt with variable gravel content to a depth of 2 feet BGS, and brown, fine sand to brown, sandy, gravelly silt from 2 feet to 55 feet BGS.

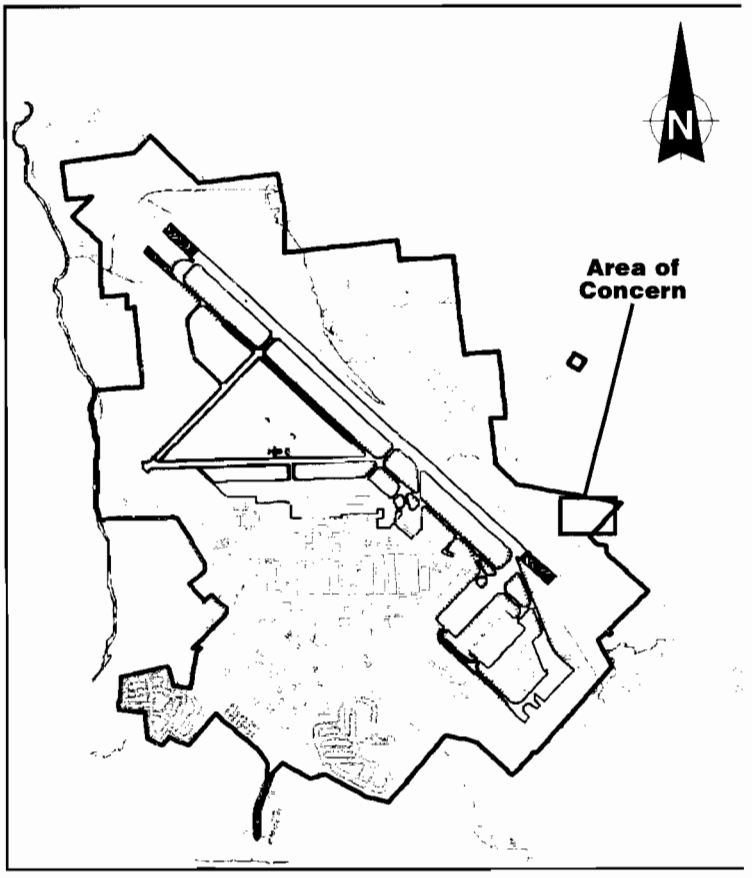


Figure 1: Landfills 2/3 AOC is located on the eastern boundary of the former Griffiss AFB.

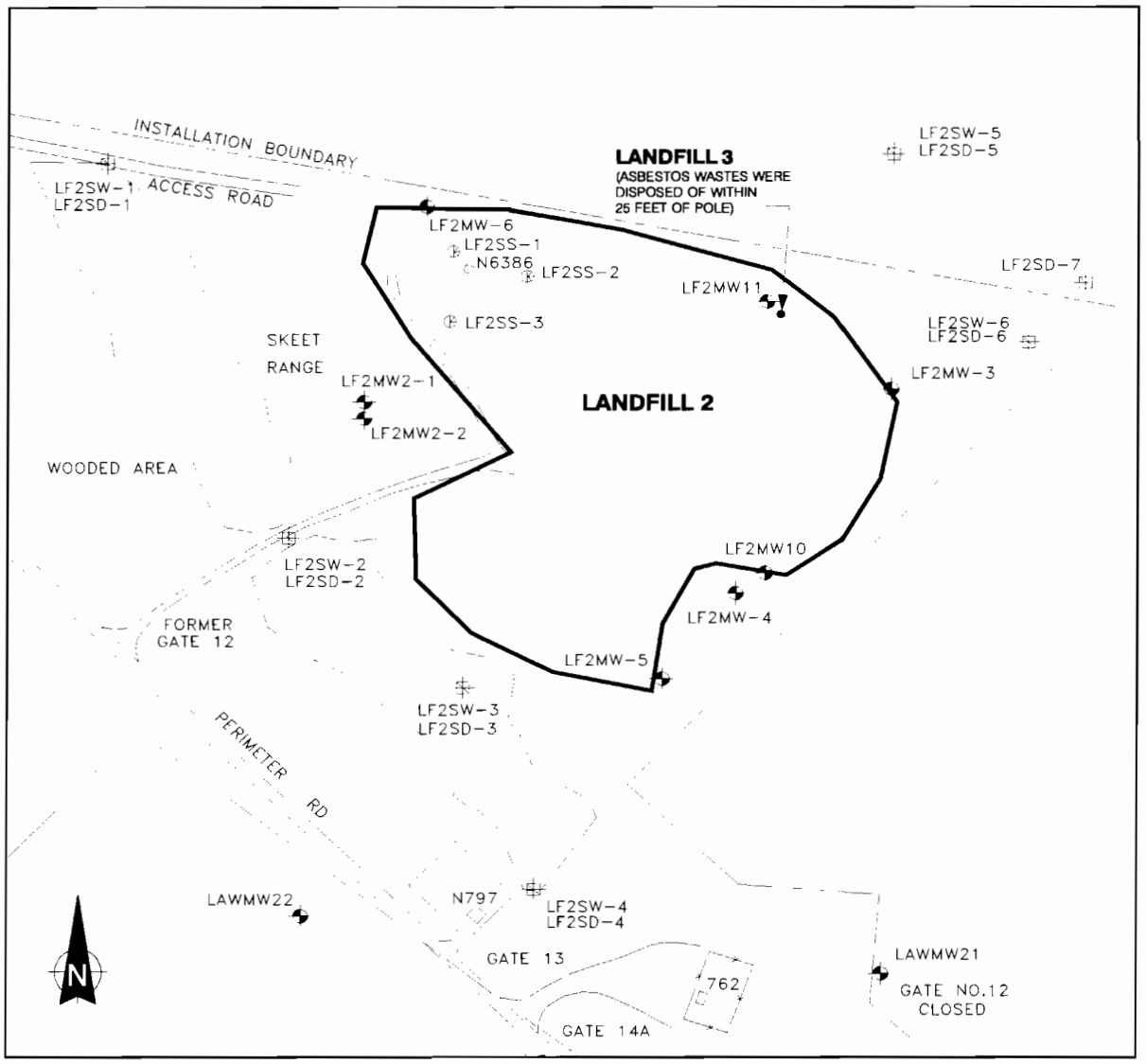


Figure 2: Landfills 2/3 AOC

SUMMARY OF SITE ACTIVITIES

In 1981 a groundwater monitoring well (LF2-MW2, currently designated as LFMW2-1) was installed downgradient of Landfill 2. The monitoring well was sampled after installation and during the 1992/1993 quarterly sampling program at the former base. Two additional monitoring wells, LF2-MW10 and LF2-MW11 were installed in 1983. In 1988 groundwater analyses were conducted; five metals, nitrate, and sulfate were detected.

In 1994 an RI was performed. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any remedial action was necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions. The RI included a geophysical survey consisting of a magnetometry survey and ground-penetrating radar (GPR) survey; a passive soil gas survey; sampling and analysis of surface soil, surface water, and sediment; and the installation and sampling of six groundwater monitoring wells.

The GPR survey indicated the presence of buried metallic objects in the southern portion of the landfill. The passive soil gas survey, which was performed at 43 points across the site, identified ***volatile organic compounds*** at 21 of the 43 locations sampled.

Volatile Organic Compounds (VOCs) a group of organic compounds that have a tendency to vaporize readily.

Semivolatile Organic Compounds (SVOCs) a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

PCBs (polychlorinated biphenyls) a group of synthetic organic chemicals with varying harmful effects. Humans come in contact with PCBs by breathing air, ingesting soil or water, and through dermal contact with soil or water containing PCBs.

Analysis of the groundwater samples indicated the presence of nine VOCs, seven ***semivolatile organic compounds***, eight pesticides/***PCBs***, 19 metals, glycols, petroleum hydrocarbons, and cyanide. The concentrations of two VOCs, seven metals, and petroleum hydrocarbons exceeded the most stringent criterion for groundwater (see Table 1).

Table 1
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
LANDFILL 2/3 AOC
GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
VOCs (µg/L)			
Dichlorodifluoromethane	0.6 - 11	1/6	5 [a]
Dichlorofluoromethane	0.031 J - 5.3	1/6	5 [a]
Metals (mg/L)			
Aluminum	0.35 - 12.2	3/6	0.05 [b]
Arsenic	0.003 - 0.033	1/6	0.025 [a]
Barium	0.034 - 3.1	1/6	1 [a]
Iron	0.049 - 33.1	5/6	0.3 [a]
Manganese	0.025 - 8.4	5/6	0.05 [b]
Mercury	0.079 J	1/6	0.002 [a]
Sodium	2.8 - 579	1/6	20 [a]
Wet Chemistry (µg/L)			
Petroleum hydrocarbons	0.42	1/6	0.1 [c]

[a] NYSDEC Class GA groundwater standard.
[b] Federal secondary maximum contaminant level.
[c] NYSDEC Title 10, Part 5 of State Sanitary Code

Key:
J = Estimated concentration.

Analysis of the surface water samples indicated the presence of three VOCs, 13 SVOCs, 27 pesticides/PCBs, 14 metals, glycols, and petroleum hydrocarbons. The concentrations of six SVOCs, six pesticides, and six metals exceeded the most stringent criterion for surface water (see Table 2).

Table 2
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
LANDFILL 2/3 AOC
SURFACE WATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/L)			
Benzo(a)anthracene	50 J	1/11	0.003 [a]
Bis(2-ethylhexyl)phthalate	0.086 J - 2.2 J	4/11	0.6 [b]
Fluorene	0.01 J - 0.081 J	10/11	0.003 [a]
Heptachlor Epoxide	0.04 J - 0.2 J	6/11	0.001 [b]
Phenanthrene	0.033 J - 0.75 J	4/11	0.003 [a]
Pyrene	0.05 J	1/11	0.003 [a]
Pesticides/PCBs (µg/L)			
Guthion (Azinphos, methyl)	0.15 J	1/8	0.005 [b]
Dieldrin	0.001 J - 0.002 J	2/6	0.000071 [a]
gamma Chlordane	0.003 J	1/6	0.002 [c]
Hexachlorobenzene	0.001 J - 0.002 J	2/6	0.00072 [a]
Malathion	0.3 J	1/6	0.1 [b]
Parathion	0.07 J	1/5	0.008 [b]
Metals (mg/L)			
Aluminum	0.099 - 0.16	3/7	0.1 [b]
Chromium, hexavalent	0.025 - 0.36	2/8	0.011 [b]
Iron	0.07 - 7.8 J	5/7	0.3 [b]
Lead	0.002	1/7	0.001 [b]
Manganese	0.01 - 2.2	5/7	0.05 [a]
Nickel	0.34	1/7	0.013 [a]

[a] Federal aquatic water quality criterion for protection of human health. Reference: Quality Criteria for Water, EPA 440/5-86-001, May 1, 1986.

[b] NYSDEC Class C surface water standard.

[c] NYSDEC Class C surface water guidance value.

Key:

J = Estimated concentration.

SUMMARY OF SITE ACTIVITIES (Cont.)

Analysis of the sediment samples indicated the presence of four VOCs, 22 SVOCs, 10 pesticides/PCBs, 24 metals, 16 dioxins, cyanide, and petroleum hydrocarbons. Fourteen SVOCs, five pesticides/PCBs, eight metals, and one dioxin were detected at concentrations exceeding the most stringent criterion for sediments (see Table 3).

Table 3
COMPOUNDS EXCEEDING GUIDANCE VALUES
LANDFILL 2/3 AOC
SEDIMENT SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Acenaphthene	30 J - 150 J	3/16	16 [a]
Acenaphthylene	53 J	1/16	44 [a]
Anthracene	64 J - 340 J	2/16	85 [a]
Benzo(a)anthracene	260 J - 1,100	3/16	1.3 * [b]
Benzo(a)pyrene	190 J - 360 J	3/16	1.3 * [b]
Benzo(b)fluoranthene	100 J - 1,000	5/16	1.3 * [b]
Benzo(k)fluoranthene	62 J - 590	4/16	1.3 * [b]
Bis(2-ethylhexyl)phthalate	78 J - 870 J	1/16	199.5 * [c]
Chrysene	250 J - 920	2/16	1.3 * [b]
Fluoranthene	40 J - 1,600	2/16	600 [a]
Fluorene	160 J	1/16	19 [a]
Indeno(1,2,3-cd)pyrene	340 J - 670	2/16	1.3 * [b]
Phenanthrene	34 J - 1,300	5/16	120 * [c]
Pyrene	410 J - 3,600	2/16	665 [a]
Pesticides/PCBs (µg/kg)			
gamma Chlordane	2.1 J	1/17	0.001 * [b]
Aroclor 1260	65 J - 1,200 J	5	0.0008 * [b]
p,p'-DDD	3.6 J - 7.1 J	2/17	0.01 * [b]
p,p'-DDE	2.39 J - 13 J	3/17	0.01 * [b]
p,p'-DDT	0.62 J - 14	2/17	0.01 * [b]
Metals (mg/kg)			
Antimony	3.8 - 4.7	3/16	2 [d]
Arsenic	2.3 - 9.4 J	1/16	6 [d]
Copper	1.7 - 37.5	3/16	16 [d]
Lead	5.5 - 53.2	4/16	31 [d]
Manganese	8.3 - 911	3/16	460 [d]
Nickel	7.4 - 20.5	3/16	16 [d]
Silver	1.2 - 1.7	4/16	1 [d]
Zinc	5.3 - 182	3/16	120 [d]
Dioxins and Furans (ng/kg)			
2,3,7,8-TCDD	0.52 J	1/1	0.2 * [e]

* Criterion expressed as µg/g of organic carbon; sample results normalized based on site-specific total organic carbon prior to comparison.

[a] Federal guidance value, National Oceanic and Atmospheric Administration.

[b] NYSDEC criterion for protection of human health–bioaccumulation.

[c] NYSDEC criterion for protection of benthic aquatic life.

[d] State criterion for metals in sediment.

[e] NYSDEC criterion for protection of wildlife–bioaccumulation.

Key:

J = Estimated concentration.

Analysis of the surface soil samples indicated the presence of 18 SVOCs, four pesticides/PCBs, and two metals of potential concern. Seven SVOCs and two metals were detected at concentrations exceeding the most stringent criterion for surface soil (see Table 4). All seven SVOCs were detected at one sample location (sample LF2SS-1 north of the skeet range).

An RI supplemental investigation for the Landfills 2/3 AOC was performed in 1997. Two test pits were excavated to investigate two strong subsurface geophysical anomalies detected during the RI geophysical investigations. However, no buried drums were located as a result of the investigation, and no samples were taken in these pits.

A Landfill Cover Investigation performed in 1997 included the following tasks: historical records search, field survey, aerial photographic survey, auger investigation, permeability sample collection, and a landfill performance model analysis. The investigation further defined the areal extent of the landfill and the landfill boundary and revealed that the thickness of the existing landfill cover ranges from 0.5 to 4 feet.

In 1998 a surface debris consolidation project was performed in which accumulated surface debris from the various on-base landfills was collected and placed into Landfill 2. During this activity, the localized soil contamination (at sample LF2SS-1) was excavated and consolidated into the landfill. In addition, 27 drums were found along the southern toe of the landfill. All drums were inspected and monitored with portable field equipment for VOCs and radiation. Nineteen drums were designated empty and were excavated and disposed. The remaining eight drums containing product were excavated, sampled, and properly disposed. Drum samples were analyzed for VOCs, SVOCs, pesticides/PCBs, metals, ***PAHs***, and herbicides. Drum sample results indicated that four drums were nonhazardous; three drums contained flammable solids (tar); and one drum contained a flammable liquid (paint). Soil beneath the drums was examined; one area of stained soil was removed to a depth of 2 feet in a 10-foot radius surrounding the stain. Confirmatory soil samples were collected at all excavation areas and analyzed for VOCs, SVOCs, PAHs, pesticides/PCBs, and metals. The results indicated there was no residual contamination from the drums.

PAHs
(polycyclic aromatic hydrocarbons) a group of naturally occurring heavier organic compounds (e.g., pyrene, phenanthrene) that are also produced by combustion and other processes.

Table 4
COMPOUNDS EXCEEDING GUIDANCE VALUES
LANDFILL 2/3 AOC
SURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	120 J - 15,000	1/3	224 [a]
Benzo(a)pyrene	10,000	1/3	61 [a]
Benzo(b)fluoranthene	77 J - 12,000	1/3	1,100 [a]
Benzo(k)fluoranthene	39 J - 5,000	1/3	1,100 [a]
Chrysene	140 J - 14,000	1/3	400 [a]
Dibenzo(a,h)anthracene	3,900 J	1/3	14 [a]
Indeno(1,2,3-cd)pyrene	7,800	1/3	3,200 [a]
Metals (mg/L)			
Chromium, hexavalent	0.53 J - 1	3/3	0.45 [b]
Copper	59.3 - 171	3/3	43 [b]

[a] NYS-recommended soil cleanup objective.
[b] Background screening concentration.
Key:
J = Estimated concentration.

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the Landfills 2/3 AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils, soil gas, sediments, surface water, and groundwater at the site. The results of this assessment were considered in the cleanup goal selection process.

Human Health Risk Assessment
Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Landfills 2/3 could pose health risks to individuals under current and proposed future land use in an unrestricted-use scenario. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification—identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment—estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment—determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization—summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soils, soil gas, sediments, surface water, and groundwater at the site were considered chemicals of potential concern with the exception of inorganics detected at concentrations less than twice the mean background concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). As a class, petroleum hydrocarbons were not included as a chemical of concern; however, the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated. The presence of petroleum hydrocarbons as a class of contaminants was considered in the selection of the preferred remedial action.

The current and future land use designations for the Landfills 2/3 AOC are open space and wetlands/surface water. The human health risk assessment evaluated exposure to potential future residential and agricultural receptors, current and future recreational receptors, and occupational workers (current and future landscape workers and future industrial workers that may be exposed to chemicals detected in the site media). The various exposure scenarios for each population are described in Table 5. Intake assumptions, which are based on EPA guidance, are more fully described in the RI.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Landfills 2/3 AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the

Table 5
LANDFILLS 2/3 AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

RESIDENTIAL AND AGRICULTURAL RECEPTORS	RECREATIONAL RECEPTOR	LANDSCAPE WORKER	INDUSTRIAL WORKER
Adult, Child, Youth, Adolescent	**Adult, Child, Youth, Adolescent**	**Adult**	**Adult**
• Inhalation of airborne chemicals • Inhalation of fugitive dust from surface soils • Ingestion of groundwater • Dermal contact with groundwater (during showering) • Inhalation of VOCs from groundwater (during showering) • Ingestion of crops irrigated with groundwater	• Inhalation of airborne chemicals • Inhalation of fugitive dust from surface soil • Incidental ingestion of surface soil • Dermal contact with surface soil • Incidental ingestion of surface water • Dermal contact with surface water • Incidental ingestion of sediments • Dermal contact with sediments	• Incidental ingestion of surface soil • Inhalation of fugitive dust from surface soil • Dermal contact with surface soil • Inhalation of airborne chemicals	• Ingestion of groundwater • Dermal contact with groundwater (during showering) • Inhalation of VOCs from groundwater (during showering)

incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. Once either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as the point of departure for determining remediation goals for alternatives.

SUMMARY OF SITE RISKS (Cont.)

Results of Site-Specific Health Risk Assessment

Carcinogenic Risk

Because carcinogenic risks are based on total lifetime exposure, the calculated risk to the adult residential, agricultural, and recreational receptors (30-year exposure assumption versus a 6-year exposure assumption for a child) was used; therefore, only the carcinogenic risks to the adults were presented in the RI report. Additional specific exposure assumptions are described in the RI report.

The total carcinogenic risk to potential future adult residents and agricultural receptors using groundwater as a potable water supply was 9 in 10,000 (9×10^{-4}), which exceeded the upper end of EPA's target lifetime excess cancer risk range. The ingestion of groundwater containing arsenic was the greatest contributor to this risk.

The future recreational user's combined excess cancer risk for adults exposed to passive soil gas, surface soil, surface water, and sediment was calculated as 1 in 10,000 (1×10^{-4}), which is equal to the upper end of EPA's target risk range. Ingestion of surface soil contaminated with benzo(a)pyrene and dibenzo(a,h)anthracene was the major contributor to this risk.

The total carcinogenic risk for current and future adult landscape workers (25-year exposure assumption) due to exposure to the chemicals of potential concern in surface soils was calculated as 3 in 100,000 (3×10^{-5}), which falls within EPA's target risk range.

The total lifetime excess cancer risk calculated for the future adult industrial worker (25-year exposure assumption), 2 in 10,000 (2×10^{-4}), slightly exceeds the upper end of EPA's target risk range. Ingestion of groundwater containing arsenic was the major contributor to this risk.

Noncarcinogenic Risk

For noncarcinogenic risks, the child is the receptor generally assumed to have the greatest estimated risk; therefore, HIs were calculated for the adult, adolescent, youth, and child. The total HIs for the future residential adult, adolescent, youth, and child were calculated as 20, 20, 30, and 40, respectively, all exceeding the acceptable level of 1. Ingestion of groundwater contaminated with manganese, arsenic, and barium contributed the majority of the risk. The HIs for all other exposure pathways for receptors of all ages were below the acceptable level of 1.

The total HIs for potential adult, adolescent, youth, and child agricultural receptors were calculated as 20, 20, 30, and 40, respectively, due to the ingestion of groundwater contaminated with manganese, arsenic, and barium. The HIs for all other exposure pathways for receptors of all ages were below the acceptable level of 1.

The total HIs calculated for current and future recreational adult, adolescent, youth, and child receptors were calculated as 0.03, 0.04, 0.1, and 0.3, all of which are below the acceptable level of 1. The cumulative HI for adult landscape workers exposed to surface soil at the Landfills 2/3 AOC was 0.005, which is below the acceptable level of 1. Therefore, potential adverse noncarcinogenic health affects are not expected to occur for recreational receptors or adult landscape workers as a result of exposure to site compounds.

The total HI for future adult industrial workers was calculated as 6 due to the groundwater ingestion pathway. Manganese and arsenic were the greatest contributors to this risk.

The results of the human health baseline risk assessment indicate that the only potentially unacceptable risk would be to future residents, agricultural receptors, and industrial workers from ingestion of the groundwater at Landfills 2/3. Quantitative evaluation of risk is subject to several conservative assumptions and should not be considered an absolute measure of risk.

Uncertainties

Uncertainties exist in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and health-protective assumptions throughout the entire risk assessment process results in an assessment that is protective of human health and the environment. Examples of uncertainties associated with the risk assessment for this AOC include (1) Chemical samples were collected from the suspected source of contamination rather than through random sampling, which may result in a potential overestimation of risk; (2) The HIs associated with dermal contact with soil and sediment were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (3) The models used in the RI are likely to overestimate exposure point concentrations in air, which would cause an overestimation of risk for the inhalation pathway; (4) The model used in the RI to estimate exposure point concentrations in crops irrigated with groundwater may under- or overestimate risk through the crop ingestion pathway; and (5) Toxicological criteria were not available for all chemicals found at the site, which may result in an underestimation of risk.

Ecological Risk Assessment

A baseline risk assessment for ecological receptors at the Landfills 2/3 AOC was conducted during the RI. The assessment modeled risks to the raccoon, shrew, and American woodcock for exposures to surface soil, surface water, and sediment. The hazard quotients indicative of risks to the raccoon and American woodcock were calculated to be below 1; therefore, the potential for adverse impacts to these ecological receptors is considered to be insignificant. The hazard quotients for the short-tailed shrew slightly exceeded 1, indicating a potential for adverse effects. The risk to this species was driven by lead (HQ = 1.3), manganese (HQ = 1.5), molybdenum (HQ = 1.3), aluminum (HQ= 1.2), and selenium (HQ = 1.2).

Modeling of bioaccumulation to higher-order species was not performed, nor was the cumulative effect of multiple contaminants considered; this tends to underestimate the risk to ecological receptors. Also, the risks to ecological receptors in impacted areas (e.g., wetlands, Six Mile Creek, and Slate Creek) were not considered in this AOC's risk assessment but were considered in the selection of the preferred remedial action.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

REMEDIAL ACTION

Remedial Action Objectives

The following are the remedial action objectives developed for this site based upon the use of the presumptive remedy guidance and the site data:

Containment of Contamination

- Consolidation of various debris and waste areas into the main landfill boundary in order to reduce the area to be capped and the potential for nearby wildlife and human populations to be exposed to the landfill mass; and
- Reduce infiltration of rain water and snow-melt water through the landfill mass in order to minimize the potential for leachate generation and groundwater contamination.

Evaluate Effectiveness of the Remedy by

- Monitoring the groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site.

Restrict Exposure to Contamination

- Implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit inappropriate use of the area and groundwater.

Description and Evaluation of Remedial Action Alternatives

Superfund remedial and removal programs have found that certain categories of sites have similar characteristics, such as types of contaminants, types of disposal practices, or how environmental media are affected. Based on information acquired from evaluating the past cleanups at these sites, the Superfund program has developed presumptive remedies to accelerate future cleanups of these sites. Containment has been established as the presumptive remedy for CERCLA municipal landfills. Containment technologies are generally deemed appropriate for municipal landfills because the volume and heterogeneity of the waste can generally be presumed to make excavation and/or treatment impractical as well as more costly than containment. The capping of Landfills 2/3 has been estimated to cost between 1.0 and 1.5 million dollars.

CERCLA regulations mandate that a remedial action must be protective of human health and the environment, cost effective, and utilize permanent solutions and treatment technologies to the maximum extent practicable. These regulations also establish a preference for remedial actions that employ, as a principal element, treatment to permanently and significantly reduce the volume, toxicity, or mobility of contaminants at a site. As part of the presumptive remedy approach, this proposed plan evaluates a no action scenario as dictated by CERCLA and compares it to the presumptive remedy alternative. A summary of the two alternatives is presented below.

Under the No Action Alternative, no remedy would be implemented at the Landfills 2/3 AOC. The risk assessment results indicated that the only potentially unacceptable risk would be from ingestion of groundwater by residential, agricultural, or industrial receptors. However, the groundwater contaminant levels were low, localized, and varied in the type of contaminant identified. Therefore, the results were isolated hits, indicating that there are no groundwater plumes associated with this landfill. In addition, since groundwater is not currently used as a source of potable water due to the availability of existing water supplies at the former base and the City of Rome, and there are no residential dwellings adjacent to this AOC, ingestion of groundwater is a hypothetical situation. Further, any property transfer documents for the Landfills 2/3 AOC will contain appropriate institutional controls to ensure that the reuse of the site is consistent with the risk assessment.

The Presumptive Remedy Alternative includes (1) installation of a low-permeability soil cover in accordance with 6 NYCRR Part 360 landfill closure regulations dated April 1, 1987; this action would include placing a minimum of 18 inches of low-permeability soil and 6 inches of topsoil over the entire landfill cover to reduce the amount of water infiltration through the landfill; (2) maintenance of the cover and long-term monitoring of the groundwater and stream environment; the groundwater will be monitored in accordance with the Air Force's On-base Groundwater Monitoring Plan and the stream environment will be monitored in accordance with a future plan to be prepared for the Six Mile Creek AOC; both plans will be subject to the review and approval of the EPA and NYSDEC; (3) monitoring the groundwater and stream environment downgradient of the site to evaluate the effectivness of the presumptive remedy; and (4) implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit inappropriate use of the area and groundwater, and to ensure the soil cover is not damaged and the area is maintained as a landfill.

Any wetlands disturbed during the remedial action will be restored. In addition, if leachate discharges are observed during routine walkovers of the landfill, leachate management will be considered at that time. This alternative satisfies the first eight "threshold" criteria listed below and ensures compliance with applicable regulations.

Evaluation Criteria for Remedial Action Alternatives

Remedial alternatives are assessed on the basis of both a detailed and a comparative analysis pursuant to the NCP. The detailed analysis of Landfills 2/3 consisted of (1) an assessment of the individual alternatives against nine evaluation criteria and (2) a comparative analysis focusing upon the relative performance of each alternative against the criteria.

In general, the following "threshold criteria" must be satisfied by an alternative for it to be eligible for selection:

1. Overall protection of human health and the environment addresses whether a remedy provides adequate protection and describes how risks posed through each exposure pathway (based on a reasonable maximum exposure scenario) are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.
2. Compliance with ARARs addresses whether a remedy would (1) meet all of the ARARs or (2) provide grounds for invoking a waiver.

In addition, the following "primary balancing" criteria are used to make comparisons and identify the major trade-off among alternatives:

3. Long-term effectiveness and permanence refers to the ability of a remedy to maintain reliable protection of human health and the environment over time once cleanup goals have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.
4. Reduction of toxicity, mobility, or volume via treatment refers to a remedial technology's expected ability to reduce the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants at the site.
5. Short-term effectiveness addresses (1) the period of time needed to achieve protection and (2) any adverse impacts on human health and the environment that may be posed during the construction and implementation periods until cleanup goals are achieved.
6. Implementability refers to the technical and administrative feasibility of a remedy, including the availability of materials and service needed.
7. Cost includes estimated capital, operation and maintenance, and present-worth costs.

Finally, the following "modifying" criteria are considered fully after the formal public comment period on the Proposed Plan is complete:

8. State acceptance indicates whether, based on its review of the RI and the Proposed Plan, the State supports or opposes the preferred alternative and/or has identified any reservations with respect to the preferred alternative.
9. Community acceptance refers to the public's general response to the alternatives described in the Proposed Plan and the RI reports. Factors of community acceptance include support, reservation, or opposition by the community.

SELECTION OF THE PREFERRED ALTERNATIVE

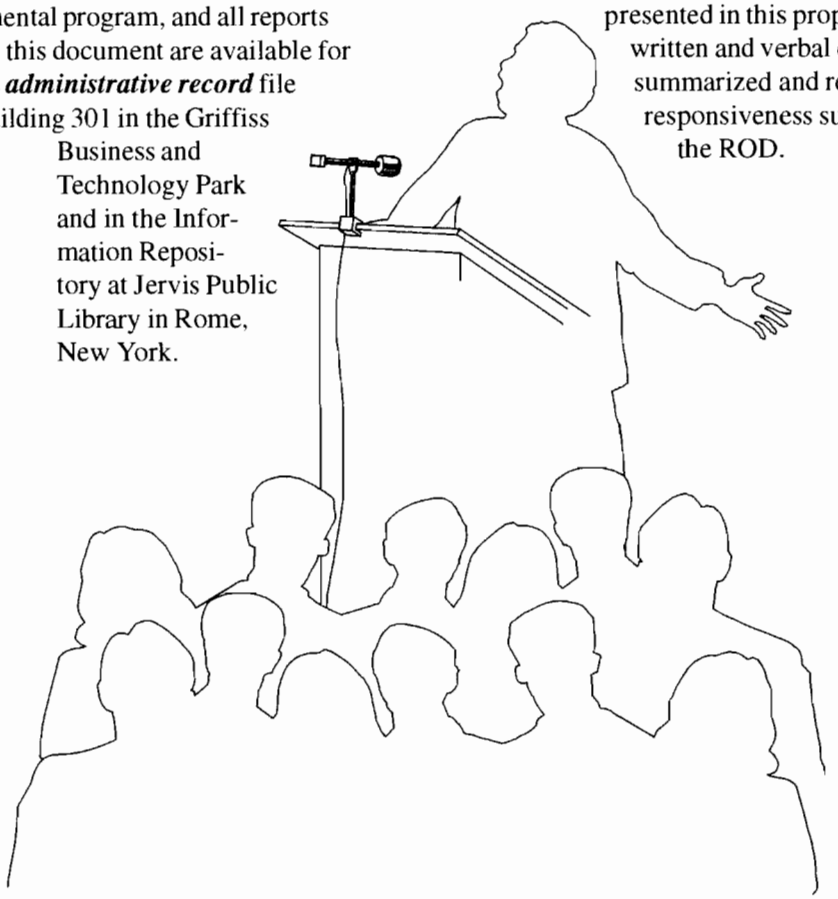
The proposed remedial action alternative for the Landfills 2/3 AOC is the Presumptive Remedy described above. Landfill 2/3 will be covered with a soil cap; a long-term monitoring program, including groundwater, surface water, sediment, and biota, will be established; and institutional controls in the form of deed restrictions will be implemented. This alternative may benefit Six Mile Creek because it is expected to reduce leachate generation, which in turn will reduce the potential for transporting contamination from the landfill to the creek. The first eight "threshold" criteria that make an alternative eligible for selection are satisfied by the Presumptive Remedy. Community acceptance (criterion 9) cannot be determined prior to the public meeting.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take remedial action at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' remedial action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the preferred alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 18 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by March 8, 2000.

Public Comment Period

The agencies have set a public comment period from February 7, 2000, to March 8, 2000, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for 5:00 pm, Wednesday, February 23, 2000, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Landfills 2/3

Problem Identification/ Records Search: 1981

|

Problem Confirmation and Quantification: 1982

|

Field Investigation: 1985

|

Griffiss AFB added to National Priorities List: 1987

|

Health Assessment: 1988

|

EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

|

Griffiss designated for realignment by BRAC: 1993 and 1995

|

ATSDR Health Assessment: 1995 Addendum: 1996

|

Remedial Investigation Report Draft-final: December 1996

|

Landfill Cover Investigation Report Final: December 1997

|

Supplemental Investigation Report Final: July 1998

|

Remedial Action Proposed Plan Final: February 2000

|

Public Comment Period: February 7, 2000 - March 8, 2000

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

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Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Landfills 2/3 AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Landfills 2/3 AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Landfill 2/3
AOC at the former
Griffiss AFB.
and to solicit
your comments.

Proposed Plan

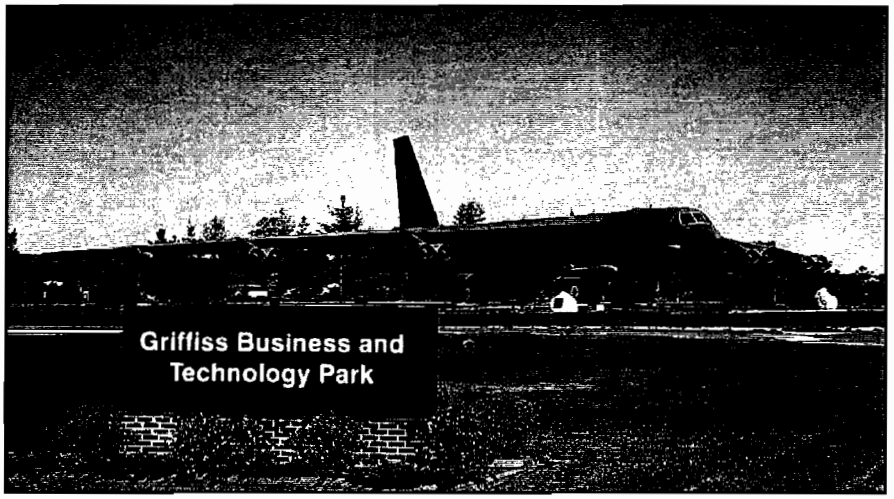
LANDFILL 5 AOC

Former Griffiss Air Force Base
Rome, New York
Public Comment Period
February 7, 2000 - March 8, 2000

February 2000

Air Force Recommends Remedial Action at the Landfill 5 AOC

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This ***proposed plan*** is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies." The document has been prepared in accordance with public participation requirements of the ***Comprehensive Environmental Response, Compensation, and Liability Act of 1980, the National Contingency Plan***, and the former Griffiss Air Force Base (AFB) ***Federal Facility Agreement***.

The preferred remedial action stated in this proposed plan was developed in accordance with EPA Presumptive Remedy Guidance for Military Landfills, dated April 29, 1996, for the expeditious cleanup of sites that are similar in character to a large number of CERCLA sites that have already been remediated. Presumptive remedies are preferred technologies for common categories of sites based on historical patterns of remedy selection and EPA's scientific and engineering evaluations of performance data on technology implementation.

This plan is intended to elicit public comments on the proposal to take remedial action at the site. The final decision or ***Record of Decision*** will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Landfill 5.
- The proposed plan to take remedial action at Landfill 5.
- How you can participate in the final decision process for Landfill 5.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone***.

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priority List.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998 when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of ***Areas of Concern*** on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a baseline risk assessment; a community relations plan; an RI report; a work plan and the report for a supplemental investigation; and a Landfill Cover Investigation Report. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The Final Landfill Cover Investigation Report was delivered on December 8, 1997, and the Final Supplemental Investigation Report was delivered on July 24, 1998.

This proposed plan for remedial action is based on an evaluation of potential threats to human health and the environment due to contamination in the soil, sediment, and groundwater media at the Landfill 5 AOC and adjacent areas. During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. The risk assessment for this site evaluated an unrestricted-use scenario. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), sediments, or air. Therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered. This comparison was used in the selection of the preferred remedial action.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

LANDFILL 5 AREA OF CONCERN

Landfill 5 is an approximately 4-acre area located in the south-central portion of the former Griffiss AFB (see Figures 1 and 2) less than 1,000 feet south of the base industrial complex. The landfill is unlined, uncapped, and covered by a shallow layer of soil. Landfill 5 was in operation for one year, 1959, during which an estimated 18,000 cubic yards of municipal wastes were burned and covered at the landfill.

The northern portion of the landfill is flat and covered with grass. It was constructed using an area-type method to a total depth of approximately 6 feet. The southern portion of the landfill is covered by dense, brushy undergrowth and is heavily wooded. It was constructed directly on the floodplain of Three Mile Creek to a height of approximately 12 feet and is adjacent to regulated forested wetland areas. A hardfill area (Hardfill 49D) is located northwest of Landfill 5.

Currently, the landfill is well vegetated, although wastes protrude from the ground surface in the southern area of the landfill. The topography of the landfill slopes toward the south and west, with 10 feet of relief occurring across the site. Surface water runoff drains to one of three locations: a wetland southeast of the landfill, Three Mile Creek south of the landfill, and a drainage ditch on the west side of the landfill. Groundwater flows toward the southwest (toward Three Mile Creek). Groundwater was encountered at depths of 4 to 10 feet below ground surface (BGS). Shallow site soils consist of sandy peat, silty fine sand, and sandy silt to a depth of 2 feet BGS. Deeper soils, from 2 feet BGS to 20 feet BGS, consist of fine brown sand with varying amounts of silt and gravel.

SUMMARY OF SITE ACTIVITIES

The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any remedial action is necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions.

In 1981, a groundwater monitoring well was installed downgradient of Landfill 5. In 1982, the monitoring well was sampled, and dissolved chromium, copper, and zinc were detected. This well was included in the 1992/1993 quarterly sampling program performed at the former base. Quarterly sampling results indicated the presence of acetone, methylene chloride, di-n-butylphthalate, and total glycols.

In 1994, an RI was performed. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any remedial action was necessary to prevent

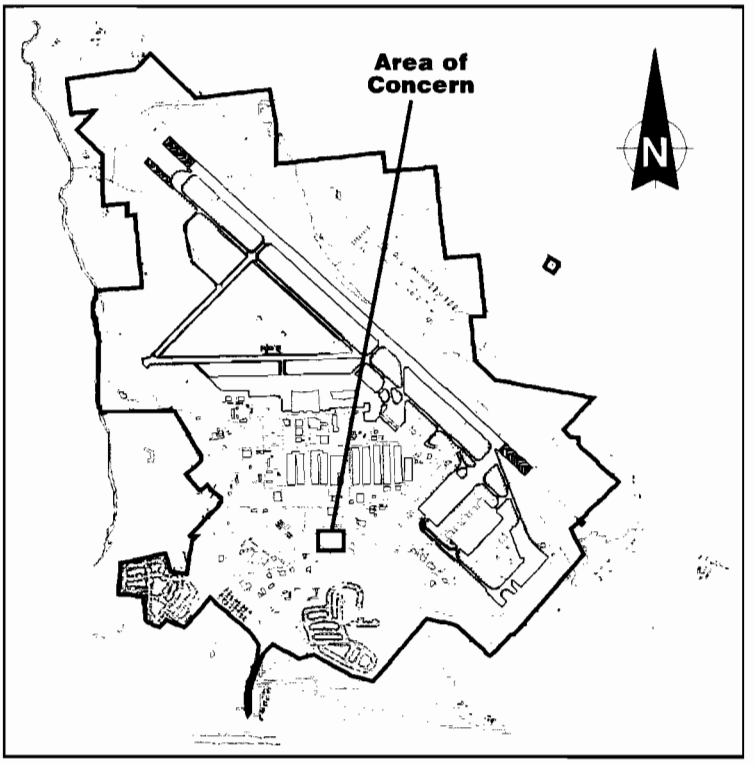
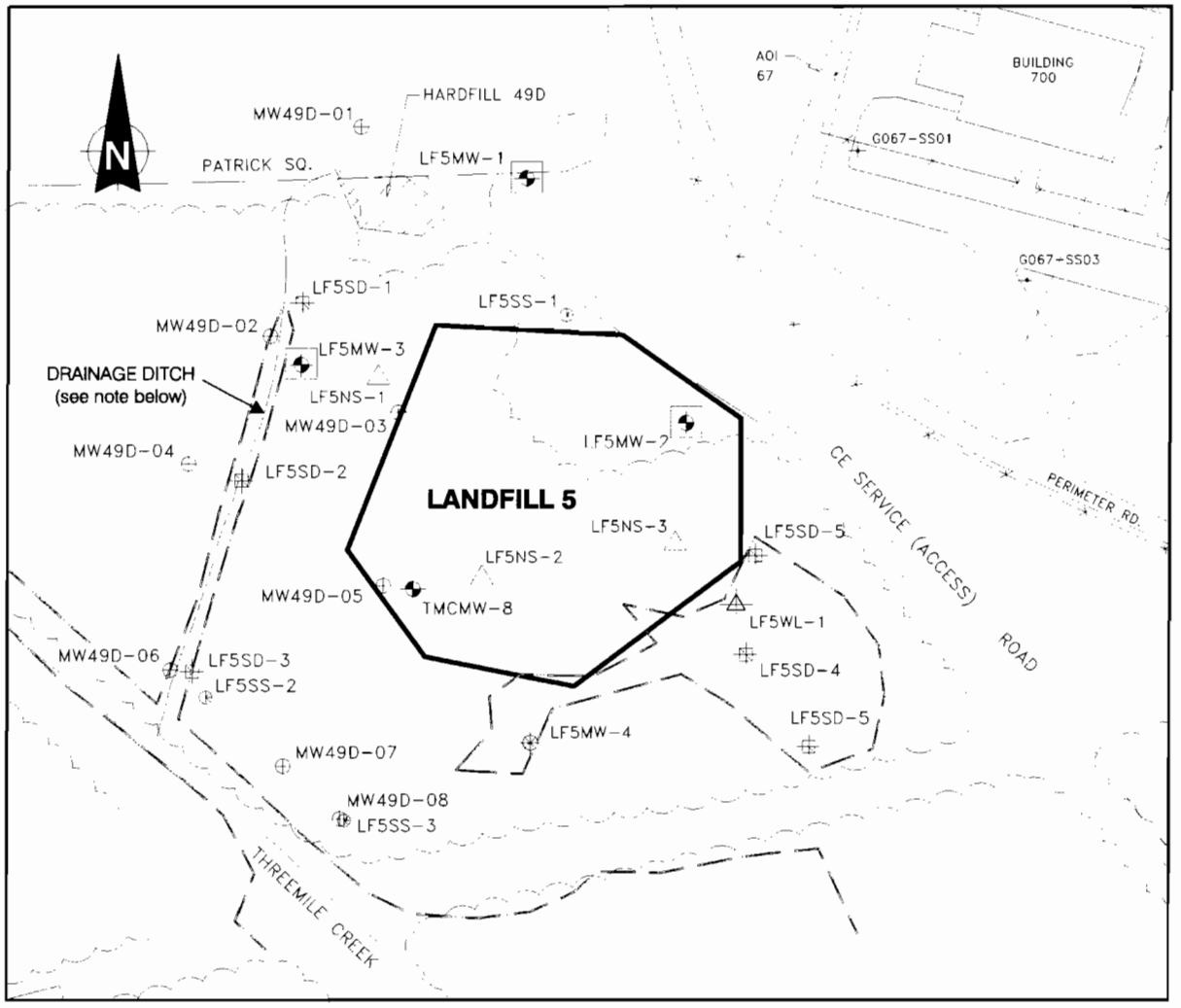


Figure 1: Landfill 5 AOC is located in the south-central portion of the former Griffiss AFB.



LEGEND

- SUPPLEMENTAL INVESTIGATION MONITORING WELL
- RI MONITORING WELL RESAMPLED DURING SUPPLEMENTAL INVESTIGATIONS
- SUPPLEMENTAL INVESTIGATION NEAR-SURFACE SOIL SAMPLE
- SUPPLEMENTAL INVESTIGATION LEACHATE SAMPLE
- RI MONITORING WELL
- RI SURFACE WATER AND/OR SEDIMENT SAMPLE
- HARDFILL MONITORING WELL
- RI SURFACE SOIL SAMPLE
- FENCE
- JURISDICTIONAL WETLANDS BOUNDARY
- APPROXIMATE LIMITS OF LANDFILL/AREA TO BE CAPPED

Note: Drainage ditch to be addressed in Three Mile Creek feasibility study and proposed plan.

SCALE IN FEET

0 200 400 600

Figure 2: Landfill 5 AOC

SUMMARY OF SITE ACTIVITIES (Cont.)

potential threats to human health and the environment. The RI included a geophysical survey consisting of a magnetometry survey and ground-penetrating radar (GPR) survey; a passive soil gas survey; sampling and analysis of surface soil and sediment samples; the installation of three monitoring wells; and the collection and analysis of groundwater samples from four wells. Surface water could not be sampled because none was present at this AOC.

Volatile Organic Compounds (VOCs)
a group of organic compounds that have a tendency to vaporize readily.

Semivolatile Organic Compounds (SVOCs)
a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

PCBs
(polychlorinated biphenyls) a group of synthetic organic chemicals with varying harmful effects. Humans come in contact with PCBs by breathing air, ingesting soil or water, and through dermal contact with soil or water containing PCBs.

The purpose of the geophysical survey was to determine the locations and extent of subsurface disposal areas at Landfill 5 and define the landfill boundaries. With the exception of the southwestern area of Landfill 5, the results of the geophysical survey indicated the presence of numerous, strong anomalies throughout the survey area, and a reinforced concrete slab was identified at one location.

Analysis of the groundwater samples indicated the presence of three ***VOCs***, 14 ***SVOCs***, eight pesticides/***PCBs***, 20 metals, glycols, and petroleum hydrocarbons. The concentrations of one VOC, four SVOCs, four pesticides/PCBs, eight metals, and petroleum hydrocarbons exceeded the most stringent criterion (see Table 1).

Table 1
COMPOUNDS EXCEEDING GUIDANCE VALUES
LANDFILL 5 AOC
GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection	Most Stringent Criterion
VOCs (µg/L)			
Carbon tetrachloride	6.6	1/4	5 [a]
SVOCs (µg/L)			
Benzo(a)anthracene	0.05 J	1/4	0.002 [b]
Benzo(b)fluoranthene	0.03 J	1/4	0.002 [b]
Bis(2-ethylhexyl)phthalate	5 J - 7J	1/4	6 [c]
Chrysene	0.04 J	1/4	0.002 [b]
Pesticides/PCBs (µg/L)			
gamma BHC (lindane)	0.5	1/4	ND [a]
2,2,3,3,4,4,6-Heptachlorobiphenyl	0.2 J	1/4	0.1 [a]
2,2,3,4,6-Pentachlorobiphenyl	0.2 J	1/4	0.1 [a]
2,2,4,4,5,6,-Hexachlorobiphenyl	0.3 J	1/4	0.1 [a]
Metals (mg/L)			
Aluminum	0.2 - 1.54	2/4	0.05 [d]
Arsenic	0.003 - 0.033	1/6	0.025 [a]
Iron	0.05 J - 3.19	3/4	0.3 [a]
Lead	0.00133 J - 0.0164	1/4	0.015 [c]
Manganese	0.0068 J - 9.86	3/4	0.05 [d]
Mercury	0.00003 - 0.0125 J	1/4	0.002 [a]
Sodium	3.92 - 52.8	2/4	20 [a]
Zinc	0.315	1/4	0.3 [a]
Wet Chemistry (mg/L)			
Petroleum hydrocarbons	0.09 J - 0.17 J	1/4	0.1 [a]

[a] NYSDEC Class GA groundwater standard.
[b] NYSDEC Class GA groundwater guidance value.
[c] Federal maximum contaminant level.
[d] Federal secondary maximum contaminant level.
Key:
J = Estimated concentration.

The wetland sediment samples contained five VOCs, 10 SVOCs, 19 pesticides/PCBs, 22 metals, one dioxin, and petroleum hydrocarbons. The concentrations of eight SVOCs, 11 pesticides/PCBs, seven metals, and one dioxin exceeded the most stringent criterion (see Table 2).

Dioxins/Furans
a group of synthetic organic chemicals that can occur as a result of incineration of municipal and industrial wastes, from improper disposal of certain chlorinated chemical wastes, and many other sources. Humans come in contact with dioxins by absorption through the skin from contaminated soils. These chemicals, such as 2,3,7,8-TCDD, are considered highly toxic.

Table 2
COMPOUNDS EXCEEDING GUIDANCE VALUES
LANDFILL 5 AOC
WETLANDS SEDIMENT SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	160 J - 340 J	6/7	1.3 * [c]
Benzo(a)pyrene	180 J - 290 J	4/7	1.3 * [c]
Benzo(b)fluoranthene	120 J - 690 J	5/7	1.3 * [c]
Benzo(k)fluoranthene	150 J - 260 J	2/7	1.3 * [c]
Bis(2-ethylhexyl)phthalate	2,800	1/7	199.5 * [a]
Chrysene	140 J - 390 J	6/7	1.3 * [c]
Fluoranthene	150 J - 760 J	3/7	600 * [b]
Phenanthrene	180 J - 380	6/7	120 * [a]
Pesticides/PCBs (µg/kg)			
Aldrin	0.32 J	1/8	0.1* [c]
alpha BHC	6.5 J	1/8	0.06 * [c]
alpha Chlordane	0.86 J - 4.9 J	4/8	0.001 * [c]
Dieldrin	1.17 J - 31 J	4/8	0.1 * [c]
Endrin	11 J - 75	3/8	0.8 * [c]
gamma Chlordane	0.71 J - 1.66 J	3/8	0.001 * [c]
Heptachlor	22 J - 44	2/8	0.001 * [c]
Heptachlor epoxide	15 J	1/8	0.001 * [c]
p, p'-DDD	3.75 J - 62	7/8	0.01 * [c]
p, p'-DDE	4.64 J - 26	7/8	0.01 * [c]
p, p'-DDT	1.95 J - 36	5/8	0.01 * [c]
Metals (mg/L)			
Arsenic	1.9 - 12.0	2/7	6 [d]
Cadmium	1.29 J	1/7	0.6 [d]
Copper	10.6 - 71	7/7	16 [d]
Lead	25.4 - 106	7/7	31 [d]
Mercury	0.44 - 0.446	2/7	0.15 [d]
Nickel	17.4 J	1/7	16 [c]
Zinc	86.6 - 163	3/7	120 [d]
Dioxins and Furans (ng/kg)			
2,3,7,8-TCDD	8.2 - 30	4/6	0.2 * [e]

* Criterion expressed as µg/g of organic carbon (ng/g for dioxins and furans); sample results normalized based on site-specific total organic carbon prior to comparison.

[a] NYSDEC criterion for protection of benthic aquatic life – chronic level.

[b] Federal guidance value, National Oceanic and Atmospheric Administration.

[c] NYSDEC criterion for protection of human health – bioaccumulation.

[d] State criterion for metals in sediment.

[e] NYSDEC criterion for protection of wildlife – bioaccumulation.

Key:
J = Estimated concentration.

SUMMARY OF SITE ACTIVITIES (Cont.)

The surface soil samples contained one VOC, 17 SVOCs, eight pesticides/PCBs, 19 metals, five dioxins/furans, and petroleum hydrocarbons. The concentration of one VOC, four SVOCs, three pesticides/PCBs, and nine metals exceeded the most stringent criterion (see Table 3).

Table 3
COMPOUNDS EXCEEDING GUIDANCE VALUES
LANDFILL 5 AOC
SURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
VOCs (µg/kg)			
Acetone	330 J	1/3	200 [a]
SVOCs (µg/kg)			
Benzo(a)pyrene	250 J	1/3	61 [a]
Benzo(b)fluoranthene	330 J - 1,500 J	1/3	1,100 [a]
Benzo(k)fluoranthene	140 J - 1,400 J	1/3	1,100 [a]
Chrysene	1,600	1/3	400 [a]
Pesticides/PCBs (µg/kg)			
Dieldrin	67 J	1/3	40 [a]
Heptachlor epoxide	31 J	1/3	20 [a]
Aroclor 1254	4,000 J	1/3	1,000 [a]
Metals (mg/kg)			
Arsenic	3.4 - 6.4	2/3	4.9 [b]
Barium	78.1 - 156 J	3/3	71 [b]
Calcium	12,700 - 32,700	1/3	23,820 [b]
Chromium, hexavalent	2.9 - 3.9	3/3	0.45 [b]
Lead	13.6 - 87.5 J	1/3	36.2 [b]
Molybdenum	19 - 24.4	3/3	ND [b]
Sodium	229 - 588	2/3	259 [b]
Strontium	26.2 - 60.7	1/3	55 [b]
Zinc	69.4 - 173	1/3	120 [b]

[a] NYS-recommended soil cleanup objective.

[b] Background screening concentration.

Key:

J = Estimated concentration.

ND = Nondetect.

An RI supplemental investigation was performed at the site in 1997. As part of this investigation, three test pit excavations were performed at the location of the three strongest geophysical anomalies, three near-surface soil samples and one leachate sample were collected, and one new monitoring well was installed and sampled. Samples from the existing monitoring wells were also collected and analyzed.

No drums were found in the test pit excavations; therefore, no samples were collected from the test pits. Groundwater sampling during the supplemental investigation confirmed the presence of carbon tetrachloride, but no other results exceeded the most stringent criterion. The near-surface soil samples contained 18 SVOCs, seven pesticides/PCBs, and 22 metals. Eight SVOCs, two pesticides, and seven metals were detected at concentrations exceeding the most stringent criterion (see Table 4). The leachate sample contained one VOC, three SVOCs, and 11 metals. Only two metals, zinc and manganese, were detected at concentrations exceeding the most stringent criterion.

Table 4
COMPOUNDS EXCEEDING GUIDANCE VALUES
LANDFILL 5 AOC
SI NEAR-SURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	480 J - 53,000	4/4	224 [a]
Benzo(a)pyrene	590 J - 50,000 J	4/4	61 [a]
Benzo(b)fluoranthene	1,100 J - 75,000 J	3/4	1,100 [a]
Benzo(k)fluoranthene	39,000 J	1/4	1,100 [a]
Chrysene	530 J - 52,000	4/4	400 [a]
Dibenzo(a,h)anthracene	200 J - 4,500 J	4/4	14 [a]
Fluoranthene	710 J - 90,000	1/4	50,000 [a]
Pyrene	1,100 J - 110,000	1/4	50,000 [a]
Pesticides/PCBs (µg/kg)			
Dieldrin	61 - 350	3 /4	40 [a]
Heptachlor epoxide	11 - 93	1/4	20 [a]
Metals (mg/kg)			
Arsenic	4.7 - 17	3/4	4.9 [b]
Beryllium	0.99 - 1.1	2/4	0.64 [b]
Cadmium	2.4	1/4	1.0 [a]
Calcium	7,200 J - 37,000 J	1/4	23,820 [b]
Lead	48 J - 110 J	4/4	36.2 [b]
Mercury (solid)	0.14 - 0.28	4/4	0.1 [a]
Zinc	72 J - 210 J	2/4	120 [b]

[a] NYS-recommended soil cleanup objective.
[b] Background screening concentration.
Key:
J= Estimated concentration.

A Landfill Cover Investigation performed in 1997 included the following tasks: historical records search, field survey, aerial photographic survey, auger investigation, permeability sample collection, and a landfill performance model analysis. The investigation further defined the areal extent of the landfill and revealed that the thickness of the existing landfill cover ranges from 0.8 to 2.4 feet.

In 1998, three drums were found near Landfill 5 during the surface debris consolidation project. The drums were inspected and monitored with portable field equipment for VOCs and radiation. It was determined that the drums were empty, and they were crushed and transported to Landfill 2/3 for disposal. Soil beneath the drums exhibited minor staining and was removed to a depth of 1 foot. Confirmatory soil samples were collected and analyzed for VOCs, SVOCs, ***PAHs***, pesticides/PCBs, and metals. The results indicated there was no residual contamination from the drums.

PAHs
(polycyclic aromatic hydrocarbons) a group of naturally occurring heavier organic compounds (e.g., pyrene, phenanthrene) that are also produced by combustion and other processes.

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the Landfill 5 AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils, sediments, and groundwater at the site. The results of this assessment were considered in the cleanup goal selection process.

Human Health Risk Assessment
Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Landfill 5 AOC pose health risks to individuals under current and proposed future land uses (in an unrestricted-use scenario) if no remediation occurs. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification—identifies the contaminants of concern at the site based on factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment—estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment—determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization—summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., 1-in-1,000,000 excess cancer risk) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soils, soil gas, sediments, and groundwater at the site were considered COPCs with the exception of inorganics detected at concentrations less than twice the mean background concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). As a class, petroleum hydrocarbons were not included as a chemical of concern, but the individual detected constituents (e.g., benzene, toluene, ethylbenzene) were evaluated. The presence of petroleum hydrocarbons as a class of contaminants was considered in the selection of the preferred remedial action.

The current and future land use designations for the Landfill 5 AOC are open space and wetlands/surface water. However, the human health risk assessment evaluated exposure to potential residential, recreational, and occupational (landscape worker and future industrial worker) populations that may be exposed to chemicals detected in the site media. The various exposure scenarios for each population are described in Table 5. Intake assumptions, which are based on EPA guidance, are more fully described in the RI.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Landfill 5 AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to a potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. If either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as the point of departure for determining remediation goals for alternatives.

Table 5
LANDFILLS AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

RESIDENTIAL RECEPTOR	RECREATIONAL RECEPTOR	LANDSCAPE WORKER	INDUSTRIAL WORKER
Adult, Child, Youth, Adolescent	**Adult, Child, Youth, Adolescent**	**Adult**	**Adult**
• Inhalation of airborne chemicals • Inhalation of fugitive dust from surface soils • Ingestion of groundwater • Dermal contact with groundwater (during showering) • Inhalation of VOCs from groundwater (during showering) • Ingestion of crops irrigated with groundwater	• Inhalation of airborne chemicals • Inhalation of fugitive dust from surface soil • Incidental ingestion of surface soil • Dermal contact with surface soil • Incidental ingestion of sediments • Dermal contact with sediments	• Incidental ingestion of surface soil • Inhalation of fugitive dust from surface soil • Dermal contact with surface soil • Inhalation of airborne chemicals	• Ingestion of groundwater • Dermal contact with groundwater (during showering) • Inhalation of VOCs from groundwater(during showering)

SUMMARY OF SITE RISKS (Cont.)

Results of Site-Specific Health Risk Assessment

Carcinogenic Risk

Because carcinogenic risks are based on total lifetime exposure, the calculated risk to the adult residential and recreational receptors (30-year exposure assumption versus a 6-year exposure assumption for a child) was used; therefore, only the carcinogenic risks to adults were presented in the RI report. Additional specific exposure assumptions are described in the RI report.

The total carcinogenic risk to a future adult resident from all pathways was calculated as 7 in 100,000 (7×10^{-5}), which is within EPA's target lifetime excess cancer risk range of 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) for Superfund sites.

The total carcinogenic risk from all exposure pathways for future adult recreational users, current and future adult landscape workers, and future adult industrial workers (25-year exposure assumption for both) was calculated, respectively, as 3 in 100,000 (3×10^{-5}), 2 in 100,000 (2×10^{-5}), and 8 in 1,000,000 (8×10^{-6}). The results are all within EPA's target risk range; therefore, potential adverse carcinogenic health effects are not expected to occur from exposure to chemicals at this site.

Noncarcinogenic Risk

For noncarcinogenic risks, the child is the receptor generally assumed to have the greatest estimated risk; therefore, HIs were calculated for the adult, adolescent, youth, and child. The total HIs for the future residential adult, adolescent, youth, and child were calculated as 10, 10, 20, and 30, respectively, all exceeding the acceptable level of 1. The exposure pathway controlling the risk was ingestion of groundwater, with manganese contributing the majority of the calculated risk. The HIs for all other exposure pathways for receptors of all ages were below the acceptable level of 1.

The total HIs for the current and future recreational adult, adolescent, youth, and child were calculated as 0.5, 0.7, 0.9, and 2, respectively. Exposure to surface soils contributed the majority of the noncarcinogenic hazard for all receptors. For the child, incidental ingestion of surface soil and dermal contact with surface soil contributed the greatest risk. The total HI of 2 was driven by the PCB Aroclor 1254 in the soil.

The total HI for the current and future adult landscape workers was 0.4, which is below the acceptable level of 1. Therefore, potential adverse noncarcinogenic health effects are not expected to occur for landscape workers.

The results of the human health baseline risk assessment indicate that chemicals detected in air, surface soil, groundwater, and sediments likely do not present a risk to future off-site residents, current and future adult recreational users, or current and future occupational workers, as long as groundwater is not used as a drinking water source. Exposure to chemicals detected in the surface soil may pose a risk for a recreational child receptor. Quantitative evaluation of risk is subject to several conservative assumptions and should not be considered an absolute measure of risk.

Uncertainties

Uncertainties exist in many areas of the human health risk assessment process. However, the use of conservative variables in intake calculations and conservative assumptions throughout the entire risk assessment process results in an assessment that is protective of human health and the environment. Examples of uncertainties associated with the risk assessment for this AOC include (1) The HIs associated with dermal contact with soil and sediment were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (2) The models used in the RI are likely to overestimate exposure point concentrations in air, which would cause an overestimate of risk for the inhalation pathway; (3) The model used in the RI to estimate exposure point concentrations in crops irrigated with groundwater may under- or overestimate risk through the crop ingestion pathway; (4) The hypothetical future scenario of residential use of groundwater as a potable water supply could be an overestimate of risk. Currently, groundwater is not used as a

potable water supply, and there are no residential dwellings near this AOC; and (5) Toxicological criteria were not available for all chemicals found at the site, which may result in an underestimation of risk.

Ecological Risk Assessment

A baseline risk assessment for ecological receptors at the Landfill 5 AOC was conducted during the RI. The environmental evaluation modeled risks to the raccoon, short-tailed shrew, and American woodcock from exposures to surface soil and sediment. The baseline risk assessment included exposure to contaminated sediments in Three Mile Creek beyond the current Landfill 5 AOC. Risks associated with Three Mile Creek contaminants will be discussed in the Three Mile Creek FS. The HQs indicative of risks to the raccoon were calculated to be below 1; therefore, the potential for adverse impacts is considered insignificant. The HQs for three out of approximately 80 chemicals exceeded 1 for the short-tailed shrew (27 for 2,3,7,8-TCDD; 1.89 for aluminum; and 1.69 for selenium). The HQ for one chemical exceeded 1 for the American woodcock (2.8 for 2,3,7,8-TCDD). These results indicate a potential for adverse effects to these ecological receptors. However, these exceedances were partially driven by the Three Mile Creek sediments.

Modeling of bioaccumulation to higher-order species was not performed, nor was the cumulative effect of multiple contaminants considered; this tends to underestimate the risk to ecological receptors. Also, the risks to ecological receptors in impacted areas (e.g., wetlands and Three Mile Creek) were not considered in this AOC's risk assessment but were considered in the selection of the preferred remedial action.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base. Overall, this AOC poses only a moderate threat to the environment in its unremediated state.

REMEDIAL ACTION

Remedial Action Objectives

The following remedial action objectives were developed for this site based upon the use of the presumptive remedy guidance and site data:

Containment of Contamination

- Consolidation of various debris and waste areas into the main landfill boundary in order to reduce the area to be capped and the potential for nearby wildlife and human populations to be exposed to the landfill mass; and
- Reduce infiltration of rain water and snow-melt water through the landfill mass in order to minimize the potential for leachate generation and groundwater contamination.

Evaluate Effectiveness of the Remedy by

- Monitoring the groundwater and stream environment (which may include, but is not necessarily limited to, sediment, surface water, and biota) downgradient of the site.

Restrict Exposure to Contamination

- Implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit inappropriate use of the area and groundwater.

Description and Evaluation of Remedial Action Alternatives

Superfund remedial and removal programs have found that certain categories of sites have similar characteristics, such as types of contaminants, types of disposal practices, or how environmental media are affected. Based on information acquired from evaluating the past cleanups at these sites, the Superfund program has developed presumptive remedies to accelerate future cleanups of these sites. Containment has been established as the presumptive remedy for CERCLA municipal landfills. Containment technologies are generally deemed appropriate for municipal landfills because the volume and heterogeneity of the waste can generally be presumed to make excavation and/or treatment impractical as well as more costly than containment. The capping of Landfill 5 has been estimated to cost between 1.0 and 1.5 million dollars.

CERCLA regulations mandate that a remedial action

must be protective of human health and the environment, cost effective, and utilize permanent solutions and treatment technologies to the maximum extent practicable. These regulations also establish a preference for remedial actions that employ, as a principal element, treatment to permanently and significantly reduce the volume, toxicity, or mobility of contaminants at a site. As part of the presumptive remedy approach, this proposed plan evaluates a no action scenario as dictated by CERCLA and compares it to the presumptive remedy alternative.

Groundwater. Under the No Action Alternative, no remedy would be implemented at the Landfill 5 AOC. The baseline risk assessment indicated a potential noncarcinogenic risk from ingestion of groundwater for the future residential and industrial worker. However, the groundwater contaminant levels were low, localized, and varied in the type of contaminant identified. Therefore, the results were isolated hits, indicating that there are no groundwater plumes associated with this landfill. In addition, because groundwater is not currently a drinking water source due the availability of existing water supplies at the former base and the City of Rome, and there are no residential dwellings adjacent to this AOC, ingestion of groundwater is a hypothetical situation and active remediation is not considered necessary. Long-term groundwater monitoring will be performed as part of the Presumptive Remedy for soils described below.

Soils. Based on the levels of contaminants and the results of the baseline risk assessment (noncarcinogenic risk to the hypothetical recreational child receptor), remedial action was determined to be necessary for the soils at this AOC. Therefore, the No Action Alternative was not considered, due to its inability to meet the threshold requirements of an appropriate alternative.

The Presumptive Remedy Alternative includes (1) installation of a low-permeability soil cover in accordance with 6 NYCRR Part 360 landfill closure regulations dated April 1, 1987; this action would include placing a minimum of 18 inches of low-permeability soil and 6 inches of topsoil over the entire landfill cover to reduce the amount of water infiltration through the landfill; (2) maintenance of the cover and long-term monitoring of the groundwater and stream environment; the groundwater will be monitored in accordance with the Air Force's On-base Groundwater Monitoring Plan and the stream environment will be monitored in accordance with a future plan to be prepared for the Three Mile Creek AOC; both plans will be subject to the review and approval of the EPA and NYSDEC; (3) monitoring the groundwater and stream environment downgradient of the site to evaluate the effectiveness of the presumptive remedy; and (4) implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit inappropriate use of the area and groundwater, and to ensure the cap is not damaged and the area is maintained as a landfill.

Any wetlands disturbed during the remedial action will be restored. In addition, if leachate discharges are observed during routine walkovers of the landfill, leachate management will be considered at that time. This alternative satisfies the first eight "threshold" criteria listed below and ensures compliance with applicable regulations.

Wetland Sediments. Under the No Action Alternative, wetland sediments would remain in their existing state with some contaminant concentrations slightly exceeding TBCs. Because recreational activities such as fishing do not occur in the wetland, the risk to human health is not a concern. However, this alternative does not control potential exposure of aquatic and benthic life to contaminants. A Presumptive Remedy Alternative would include significant forest clearing followed by excavation of the contaminated sediments, transportation to an off-site treatment, storage, and disposal facility, and site restoration with clean backfill. However, this alternative would temporarily destroy aquatic and benthic populations and their habitat and would necessitate the destruction of a forested wetland.

Evaluation Criteria for Remedial Action Alternatives

Remedial alternatives are assessed on the basis of both a detailed and a comparative analysis pursuant to the NCP. The detailed analysis of Landfill 5 consisted of (1) an assessment of the individual alternatives against nine evaluation criteria and (2) a comparative analysis focusing upon the relative performance of each alternative against the criteria.

In general, the following "threshold criteria" must be satisfied by an alternative for it to be eligible for selection:

1. Overall protection of human health and the environment addresses whether a remedy provides adequate protection and describes how risks posed through each exposure pathway (based on a reasonable maximum exposure scenario) are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.
2. Compliance with ARARs addresses whether a remedy would (1) meet all of the ARARs or (2) provide grounds for invoking a waiver.

In addition, the following "primary balancing" criteria are used to make comparisons and identify the major trade-off among alternatives:

3. Long-term effectiveness and permanence refers to the ability of a remedy to maintain reliable protection of human health and the environment over time once cleanup goals have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.
4. Reduction of toxicity, mobility, or volume via treatment refers to a remedial technology's expected ability to reduce the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants at the site.
5. Short-term effectiveness addresses (1) the period of time needed to achieve protection and (2) any adverse impacts on human health and the environment that may be posed during the construction and implementation periods until cleanup goals are achieved.
6. Implementability refers to the technical and administrative feasibility of a remedy, including the availability of materials and services needed.
7. Cost includes estimated capital, operation and maintenance, and present-worth costs.

Finally, the following "modifying" criteria are considered fully after the formal public comment period on the Proposed Plan is complete:

8. State acceptance indicates whether, based on its review of the RI and the Proposed Plan, the State supports or opposes the preferred alternative and/or has identified any reservations with respect to the preferred alternative.
9. Community acceptance refers to the public's general response to the alternatives described in the Proposed Plan and the RI reports. Factors of community acceptance include support, reservation, or opposition by the community.

SELECTION OF THE PREFERRED ALTERNATIVE

The proposed remedial action alternative for soils at the Landfill 5 AOC is the Presumptive Remedy described above. Landfill 5 will be covered with a soil cap; a long-term monitoring program, including groundwater, surface water, sediment, and biota, will be established; and institutional controls in the form of deed restrictions will be implemented. This alternative may benefit Three Mile Creek because it is expected to reduce leachate generation, which in turn will reduce the potential for transporting contaminants from the landfill to the creek via groundwater migration. The first eight "threshold" criteria that make an alternative eligible for selection are satisfied by the Presumptive Remedy. Community acceptance (criterion 9) cannot be determined prior to the public meeting.

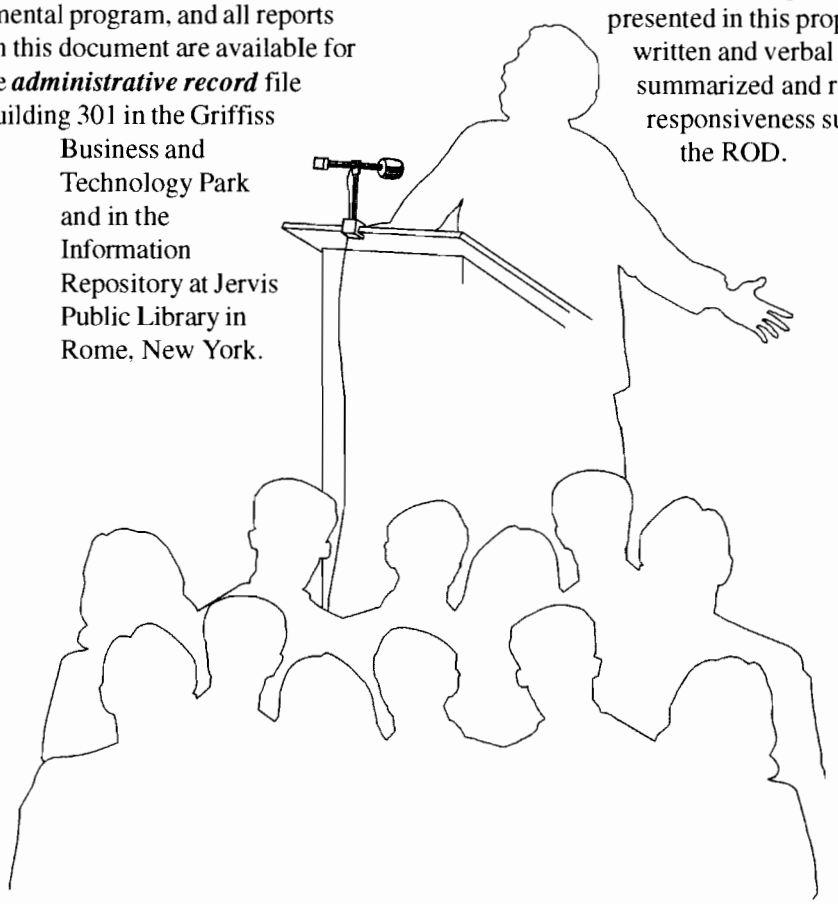
The recommended alternative for the Landfill 5 AOC wetland sediments is No Action. Under this alternative, wetland sediments would remain in their existing state. The No Action Alternative is believed to provide the best balance among the alternatives with respect to the first eight evaluation criteria. Upon consultation with the state and federal Fish and Wildlife offices, the Air Force has determined that the sediments do not pose an unacceptable risk to humans, and removal of the sediments would require the actual destruction of the aquatic and benthic life and forested wetlands. The minimal risks posed to aquatic and benthic life do not warrant their destruction and the destruction of a forested wetland. The wetland also will benefit from the additional soil cover to be placed on Landfill 5 and the long-term monitoring program included in the Presumptive Remedy Alternative for soils.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take remedial action at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents, including correspondece, public comments, and technical reports, upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' remedial action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the preferred alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 18 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by March 8, 2000.

Public Comment Period

The agencies have set a public comment period from February 7, 2000, to March 8, 2000, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for 5:00 pm, Wednesday, February 23, 2000, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Landfill 5

Problem Identification/ Records Search: 1981

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Problem Confirmation and Quantification: 1982

|

Field Investigation: 1985

|

Griffiss AFB added to National Priorities List: 1987

|

Health Assessment: 1988

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EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

|

Griffiss designated for realignment by BRAC: 1993 and 1995

|

ATSDR Health Assessment: 1995 Addendum: 1996

|

Remedial Investigation Report Draft-final: December 1996

|

Landfill Cover Investigation Report Final: December 1997

|

Supplemental Investigation Report Final: July 1998

|

Remedial Action Proposed Plan Final: February 2000

|

Public Comment Period: February 7, 2000 - March 8, 2000

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency, Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

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Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Landfill 5 AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Landfill 5 AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Landfill 5
AOC at the former
Griffiss AFB,
and to solicit
your comments.

Proposed Plan

LANDFILL 4 AOC

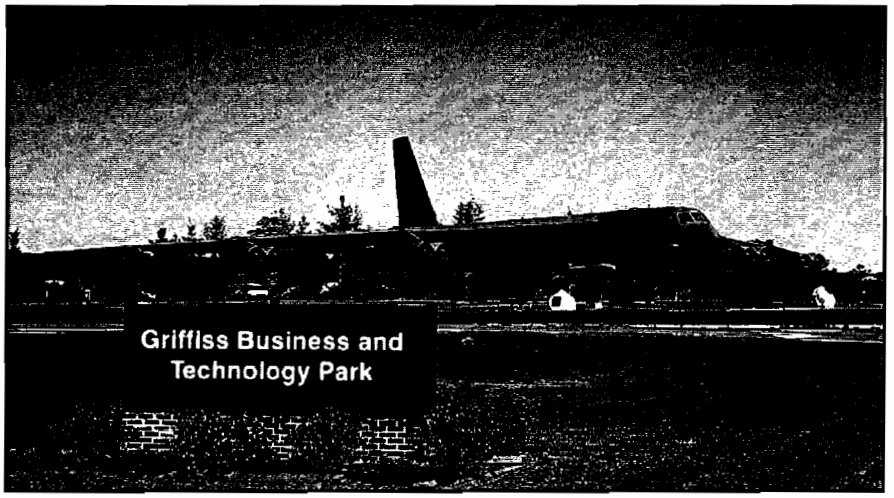


Former Griffiss Air Force Base
Rome, New York
Public Comment Period
February 7, 2000 - March 8, 2000

February 2000

Air Force Recommends No Further Action for Soils and Groundwater Monitoring at the Landfill 4 AOC

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This ***proposed plan*** is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies." The document has been prepared in accordance with public participation requirements of the ***Comprehensive Environmental Response, Compensation, and Liability Act of 1980***, the ***National Contingency Plan***, and the former Griffiss Air Force Base (AFB) ***Federal Facility Agreement.***

This proposed plan summarizes the information, including the potential risk to human health, presented in the draft final ***remedial investigation*** and the Final Closure Certification Report for the Remediation of Landfill 4 issued following removal of the underground storage vault. This plan is intended to elicit public comments on the proposal to take no further action for soils with groundwater monitoring at the site. The final decision, or ***Record of Decision***, will be made only after the public comment period has ended and the information submitted during this time period has been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Landfill 4.
- The proposed plan for no further action for soils and groundwater monitoring at Landfill 4.
- How you can participate in the final decision process for Landfill 4.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at Griffiss AFB and perform remediation if necessary.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

Site Description

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Threemile Creek, Sixmile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone***.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priority List.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 conducted by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of ***Areas of Concern*** on base; a scope of work for an RI; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a ***baseline risk assessment***; a community relations plan; the RI report; and, for Landfill 4, the Final Closure Certification Report. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The Final Closure Certification Report for Landfill 4 was delivered in December 1997.

This proposed plan for the Landfill 4 AOC is based on an evaluation of potential threats to human health and the environment due to contamination in the soil and groundwater and takes into consideration the removal of the source of contamination. During the RI, a site-specific baseline risk assessment (using appropriate exposure assumptions to evaluate cancer risks) was conducted to evaluate the risks posed by detected site contaminants to a reasonably maximally exposed individual under current and future land use assumptions if no remediation were conducted. The risk assessment for this site evaluated an unrestricted-use scenario. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), sediments, or air. Therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds,*** and ***background levels*** of the contaminants in the absence of TBCs, were considered. This comparison was used in the selection of the preferred alternative.

In the Final Closure Certification Report for the remediation of Landfill 4, site contaminants were monitored before, during, and after remediation. When remediation was completed, an analysis of the contaminants remaining at the site was conducted by computer modeling to ensure the site's compliance with established cleanup goals.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirement (ARAR)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

TBCs (To Be Considered)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

Landfill 4 Area of Concern

The site, which is located in a woodland in the south-central portion of the former Griffiss AFB, was the location of a buried vault (see Figures 1 and 2). The vault was constructed of three vertically stacked concrete culverts (sewer pipes). It was used from the mid-1950s to the mid-1960s for the disposal of vacuum and radio tubes used in radar and communications equipment, low-level radioactive wastes, and other debris. When the site was closed in 1967, a concrete cap was placed over the vault. The site was surrounded by an 8-foot-high by 10-foot-square chain link fence with a locked gate and a placard identifying the area as radioactive. From July to October 1997, the vault was excavated and the site was remediated and restored to its original condition.

Threemile Creek is located approximately 800 feet southwest of Landfill 4. Surface water runoff from the landfill presumably follows the site topography and drains, via Threemile Creek, into the New York State Barge Canal. The nearest wetlands are situated along Threemile Creek approximately 600 feet west of the site. Groundwater flows south to southwesterly toward Threemile Creek and was encountered at a depth of 7.5 feet. Site soils consist of brown to yellow-brown, fine sandy silt to a depth of 2 feet below ground surface (BGS) and brown, silty fine sand from 2 to 30 feet BGS.

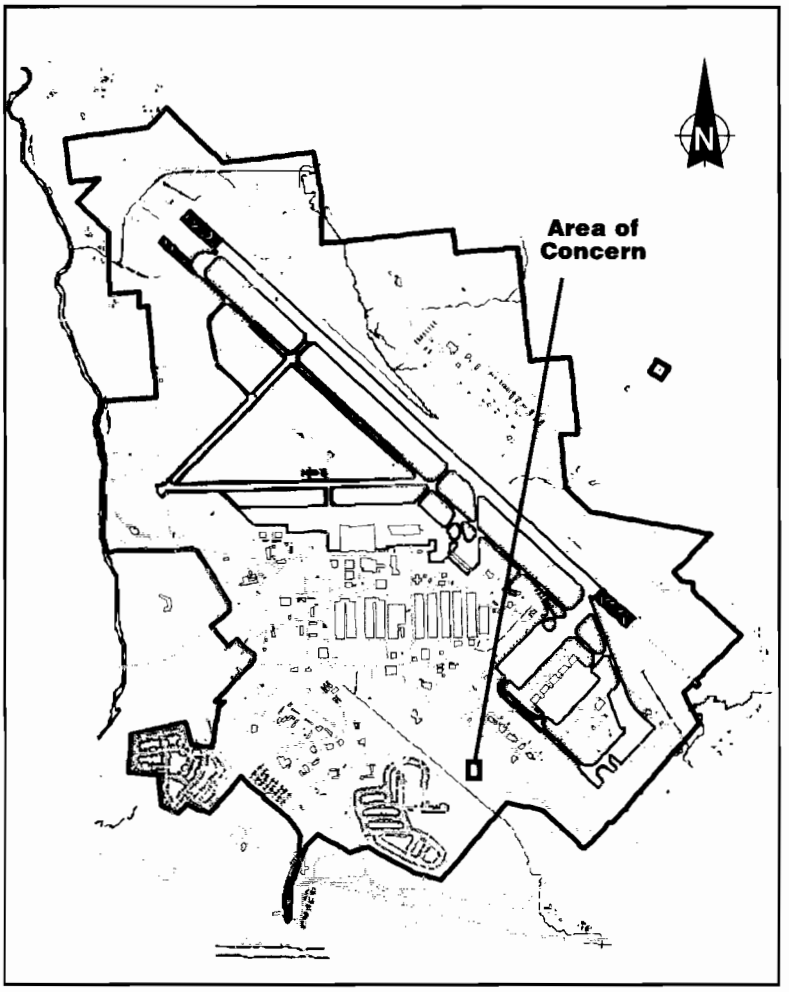


Figure 1: The Landfill 4 AOC is located in the south-central portion of the former Griffiss AFB.

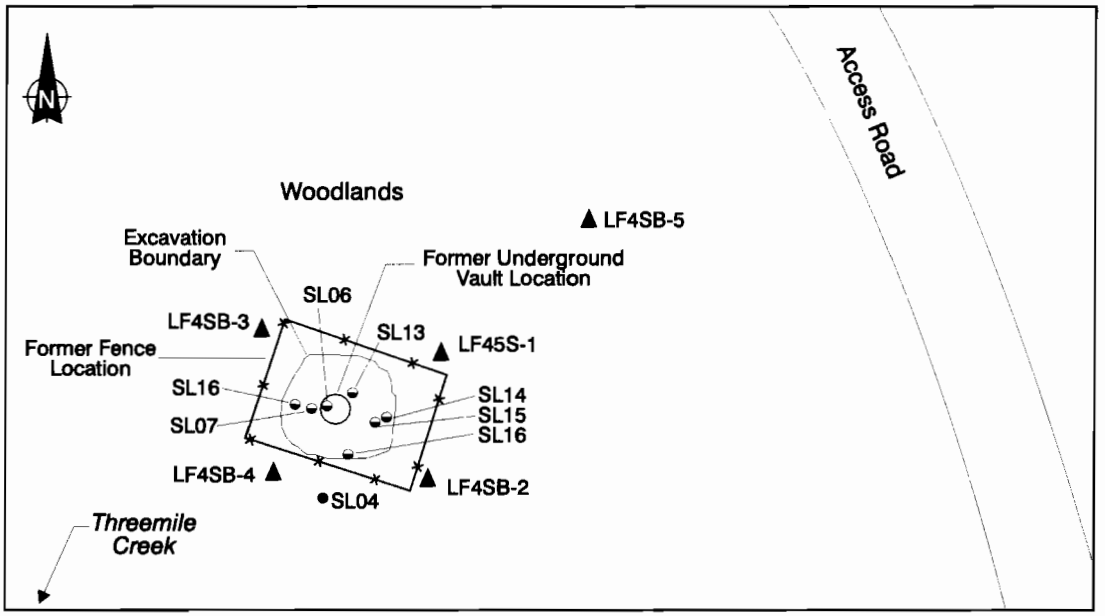
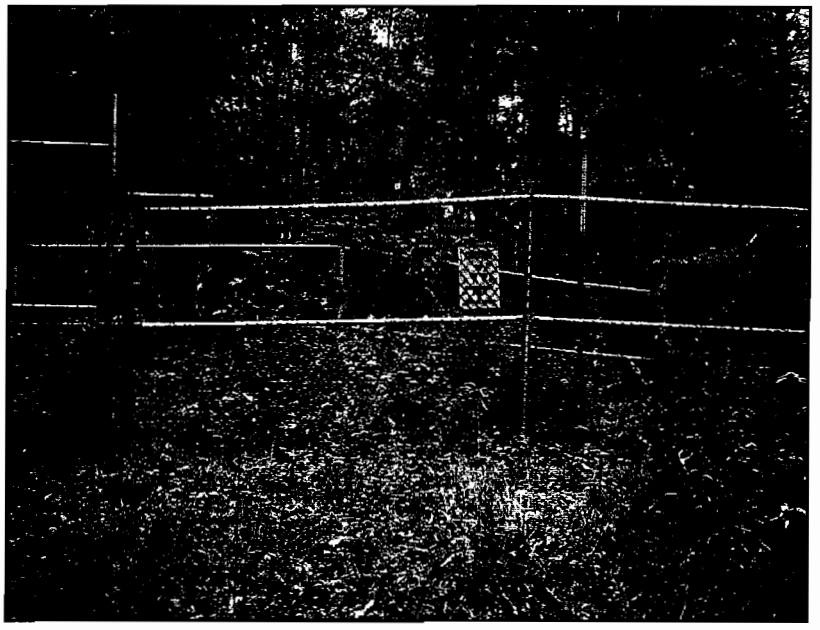


Figure 2: The Landfill 4 AOC was the location of an inactive underground vault.

KEY:

- ▲ Soil boring/grab groundwater sampling location - RI
- ● Soil boring location - vault excavation
- ◒ Confirmatory soil sample location (SL) - vault excavation



The Landfill 4 AOC was surrounded by a chain link fence with a locked gate and a radioactive area placard prior to excavation of the vault. Following excavation, the fence was removed, and the site was backfilled and restored to its original condition.

Summary of Site Activities

When Landfill 4 was closed in 1967, a concrete cap was placed over the vault and the Air Force surveyed the site for beta and gamma radiation; no elevated radiation levels over background levels were detected. EPA conducted a confirmation radiological survey in 1980 and also found no radiation levels above background readings.

Remedial Investigation

An RI was performed in 1994 to evaluate the nature and extent of environmental contamination from historical releases at the Landfill 4 AOC in order to determine whether any remedial action was necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions. As part of the RI, several field investigation activities were performed, including a ground-penetrating radar (GPR) survey, a walkover radiation survey, drilling of five soil borings, and collection and analysis of 31 soil samples and five grab groundwater samples.

The GPR survey was conducted to define the features of the disposal vault. The survey confirmed the presence of the waste vault buried near the ground surface, but because the cap was so thick, the survey was not able to characterize the features of the vault. The radiation survey detected levels of gamma radiation that only slightly exceeded background levels.

The soil samples were analyzed for radionuclides that emit gamma rays, total gross alpha and beta radioactivity, and strontium-90. Chemical and radioanalytical results from the investigation detected the presence of naturally occurring radionuclides that would be expected from uranium and thorium decay and radionuclides from man-made sources commonly found in many upper soils due to worldwide atmospheric nuclear weapons testing. The radionuclide concentrations detected were similar to background levels, and none of the detected radionuclides appeared to be associated with the radioactive tubes in the vault. The radiation levels detected inside the soil borings were similar to background radiation levels.

Chemical and radioanalytical results from the RI groundwater investigation detected the presence of 20 metals, a cyanide, nine radionuclides, and gross alpha and beta radioactivity. Twelve metals, gross alpha radioactivity, and gross beta radioactivity exceeded the most stringent criterion. Groundwater standards have been promulgated for only two of the nine radionuclides detected, radium-226 and radium-228, both of which exceeded the standards (see Table 1).

Although the RI concluded that no further action was necessary at Landfill 4 due to the sample results and a baseline risk assessment, EPA and NYSDEC did not approve No Further Action status for the site. Because the radioactive wastes in the storage vault remained a concern, the Air Force decided to remove and dispose of the vault. An Interim Remedial Action Work Plan was designed to provide cleanup goals for radionuclides in the soils and groundwater at the site.

Table 1
COMPOUNDS EXCEEDING STANDARDS OR GUIDANCE VALUES
GRAB GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Metals (mg/L)			
Aluminum	21.2 - 462	5/5	0.05[a]
Arsenic	0.017 - 0.22	4/5	0.025[b]
Barium	0.15 - 4.7	2/5	1[b]
Beryllium	0.006 - 0.03	4/5	0.003[c]
Chromium	0.061 - 1.3	5/5	0.05[b]
Copper	0.091 - 2.7	4/5	0.2[b]
Iron	59.9 0 - 1,440	5/5	0.3[b]
Lead	0.041 - 0.54	5/5	0.015[d]
Manganese	3.5 - 137	5/5	0.05[c]
Mercury	0.00041 - 0.0025	1/5	0.002[b]
Nickel	0.081 - 1.8	4/5	0.1[d]
Zinc	0.17 - 4.1	4/5	0.3[b]
Radionuclides (pCi/L)			
Gross Alpha Activity	181 - 726	5/5	15[b]
Gross Beta Activity	169 - 2,482	1/5	1,000[b]
Radium-226	5.4	1/5	3[b]
Radium-228	10	1/5	5[b]

[a] Federal secondary contaminant level.

[b] NYSDEC Class GA groundwater standard. (Ra-228 standard applies to the sum of Ra-226 and Ra-228).

[c] NYSDEC Class GA groundwater guidance value.

[d] Federal maximum contaminant level.

Key:
pCi/L = picocuries/liter.

Landfill Remediation

Pre-excavation Investigation Activities

Pre-excavation work at Landfill 4 began in July 1997. Prior to removal of the vault, an initial walkover radiation survey was conducted, background soil samples were collected, and a downgradient soil boring was drilled and samples were taken. The radiation survey was performed to locate potential hot spots (readings two times greater than background readings) for soil sampling; however, no readings were above background levels. Three surface soil samples were collected from an area hydrologically upgradient of the vault, and not downgradient of any radiological site, to establish local background concentrations of the targeted radionuclides and inorganic chemicals.

A hydrologically downgradient soil boring (SL04) was drilled approximately 10 feet south of the vault location and samples were taken to confirm the results of the RI and potentially provide additional data on the contaminants of concern. Samples were collected from the boring at 2-foot intervals to a depth of 18 feet BGS. All samples were monitored for radiation and VOCs; no levels above background were detected. Two composite samples were analyzed for the eight Resource Conservation and Recovery Act (RCRA) metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury); cyanide; gross alpha and beta radioactivity; and eight targeted radionuclides (tritium, cobalt-60, nickel-63, cesium-137, radium-226, thorium-232, uranium-235, and naturally occurring uranium); none were detected above established soil cleanup criteria.

A groundwater sample was collected from the soil boring and analyzed for the eight RCRA metals, cyanide, gross alpha and beta radioactivity, and the eight targeted radionuclides. Lead, which was detected at concentrations of 58 μg/L (total) and 43 μg/L (dissolved), was the only compound that exceeded the established cleanup criterion of 25 μg/L.

Summary of Site Activities (Cont.)

Vault Excavation

The buried vault was found to be 4 feet in diameter and 12 feet long. It was constructed of three 4-foot-long concrete culvert sections stacked vertically. Excavation began with the first section, which was reinforced with rebar and completely filled with concrete (it served as a cap to the vault). It was removed to expose entrapped water and waste material in the second section. This water and waste, which consisted of wood and concrete debris, partially crushed 5-gallon metal containers, metal signs, a metal pipe, other metal containers, and several small electrical components, were removed prior to excavation of the second culvert section. The second and third sections, separated by 1 to 2 feet of concrete, were excavated as one unit. Because the third section had no bottom, the waste from the third section remained at the bottom of the excavation and was removed separately. This waste consisted of several metal canisters containing several types of electrical components and many small glass electron tubes approximately 2 inches long. Following removal of the waste at the bottom of the vault, approximately 1 foot of additional soil was scraped from the bottom of the excavation and disposed of with the vault waste.

Once removal of the vault debris was completed, a final radiological survey was conducted to identify any hotspots within the excavation. Because no hotspots were identified by the survey, seven confirmatory soil samples were collected from the excavation area, three from the bottom of the excavation and one from each of four sidewalls. These samples were tested for the eight RCRA metals, cyanide, gross alpha and beta radioactivity, and the eight targeted radionuclides. Only the concentrations of silver (7.8 mg/kg in one sample) and selenium (34 mg/kg and 37 mg/kg in two samples) were higher than their respective soil cleanup goals of 0.36 mg/kg (site background) and 2 mg/kg (NYSDEC soil cleanup objective). These metals are naturally occurring and may not be associated with the contents of the vault.

Using site characterization data, the Final Closure Certification Report for the Remediation of Landfill 4 was prepared; all of the analytical results from the pre- and post-excavation samples are provided in the closure report. NYSDEC reviewed and
approved the report and released the site. The original chain link fence was removed, and the site was backfilled and restored to its original condition. All disturbed areas were graded, covered with at least 6 inches of clean fill, and seeded with grass. The final site closure inspection was performed on October 10, 1997.

Summary of Site Risks

A baseline risk assessment was performed during the RI to estimate current and future potential risks to human health and the environment associated with the contaminants found in groundwater at the site before the vault was excavated. After excavation of the vault, a radionuclide pathway analysis was conducted to determine the potential doses from residual radioactive materials remaining at the site. The results of these assessments were considered when formulating this No Further Action proposal.

Human Health Risk Assessment

Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Landfill 4 AOC could pose health risks to individuals under current and proposed future land uses. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification--identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment--estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated groundwater) by which humans are potentially exposed; Toxicity Assessment--determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization--summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation. The potential sources of contamination in soils were the radionuclides present underground and within the vault; therefore, no COPCs were selected for soils at this site because no complete exposure pathway was identified. All contaminants detected in groundwater at the site were considered COPCs with the exception of inorganics detected at concentrations less than twice the mean background concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). All of the radionuclides detected in groundwater at the Landfill 4 AOC are considered Class A known human carcinogens.

As proposed in the Griffiss Redevelopment Planning Council redevelopment scenario, the current and future land use designation for the Landfill 4 AOC is open space. The human health risk assessment evaluated exposure to potential occupational (future industrial worker) and residential populations that may be exposed to chemicals detected in the site media through ingestion of groundwater. Intake assumptions, which are based on EPA guidance, are more fully described in the RI.

Quantitative estimates of carcinogenic risks for the Landfill 4 AOC were calculated as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The only pathway considered in this risk assessment was ingestion of groundwater because the soil contaminants are below ground surface and surface water and sediments are not associated with the site.

The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to groundwater under specific exposure assumptions. Therefore, sites with carcinogenic risk within or below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

Summary of Site Risks (Cont.)

Results of Site-Specific Health Risk Assessment

Carcinogenic Risk

Because carcinogenic risks are based on total lifetime exposure, the calculated risk to the adult receptor (30-year exposure assumption versus a 6-year exposure assumption for a child) was used; therefore, only the carcinogenic risks to the adults were presented in the RI report. Additional specific exposure assumptions are described in the RI report.

The reasonable maximum exposure carcinogenic risk to an adult resident due to ingestion of groundwater from the Landfill 4 AOC was calculated as 3 in 10,000 (3×10^{-4}), which exceeds the NCP's carcinogenic risk range of 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) for Superfund sites. Potassium-40 and thorium-234, both naturally occurring radioactive materials not associated with the electron tubes, were the two largest contributors of risk.

The carcinogenic risk to an industrial worker from ingestion of groundwater at the Landfill 4 AOC was calculated to be 8 in 100,000 (8×10^{-5}), which falls within the EPA's target risk range. Potassium-40, thorium-234, and radium-228, all of which are naturally occurring, were the largest contributors of risk.

Noncarcinogenic Risk

Noncarcinogenic risks were not calculated because reference doses for radionuclides are not available.

Uncertainties

Uncertainties exist in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and conservative assumptions throughout the entire risk assessment process results in an assessment that is protective of human health and the environment. Examples of uncertainties associated with the risk assessment for this AOC include (1) Groundwater samples consisted of five grab samples. This type of sample typically contains particulate matter, which causes sample results to be elevated for metals and inorganic radionuclides that are natural constituents of soil and rock. This may result in a potential overestimation of risk; (2) The risk assessment was quantified based on an analysis of a small number of samples, which adds to the uncertainty of the assessment; and (3) Site-specific background concentrations for groundwater were established based on analytical results for only one sample. Therefore, it is possible that inclusion of some radionuclides that are not site-related (in this case, potassium-40) has resulted in an overestimation of risk.

The radionuclides detected in groundwater that contributed to the excess cancer risk are potassium-40, thorium-234, and radium-228. These radionuclides are naturally occurring and may not be associated with the radioactive waste buried in the vault.

The overall results of the human health baseline risk assessment indicate that the radionuclides detected in groundwater may present a risk to the adult resident or industrial worker through ingestion. Therefore, groundwater monitoring will be performed at Landfill 4. Quantitative evaluation of risk is subject to several conservative assumptions and should not be considered an absolute measure of risk.

Ecological Risk Assessment

A risk assessment for ecological receptors at the Landfill 4 AOC was conducted during the RI. Habitats critical to ecological receptors were considered to be insignificant because the vault is below grade and ecological receptors are not expected to be found at these depths. Likewise, because surface water and sediments are not present at Landfill 4, no COPCs were identified for these media. Therefore, this AOC poses no significant threat to the environment.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

Radionuclide Pathway Analysis

As part of the Final Closure Certification Report for the removal of the low-level radioactive wastes, a computer program using post-excavation sampling results was used to mathematically model a closure pathway analysis. The closure pathway analysis was used to determine potential doses from the residual radioactive material remaining at the Landfill 4 AOC. The analysis was performed in accordance with NYSDEC Technical Administrative Guidance Memorandum number 4003, "Cleanup Guidelines for Soils Contaminated with Radioactive Materials." The computer program RESRAD, as approved and validated by the US Department of Energy, was used to model the dispersion of radionuclides through the environment. Pathways considered in the analysis included external gamma radiation from radionuclides in the soil; inhalation of contaminated dust; and ingestion of contaminated plants, water, and soil. The analysis concluded that the remaining radioactive material in the soil meets the guideline that the Total Effective Dose Equivalent (TEDE) to the maximally exposed individual of the general public is less than 10 millirems per year. NYSDEC reviewed and approved the report and released the site.

Description of Preferred Alternative

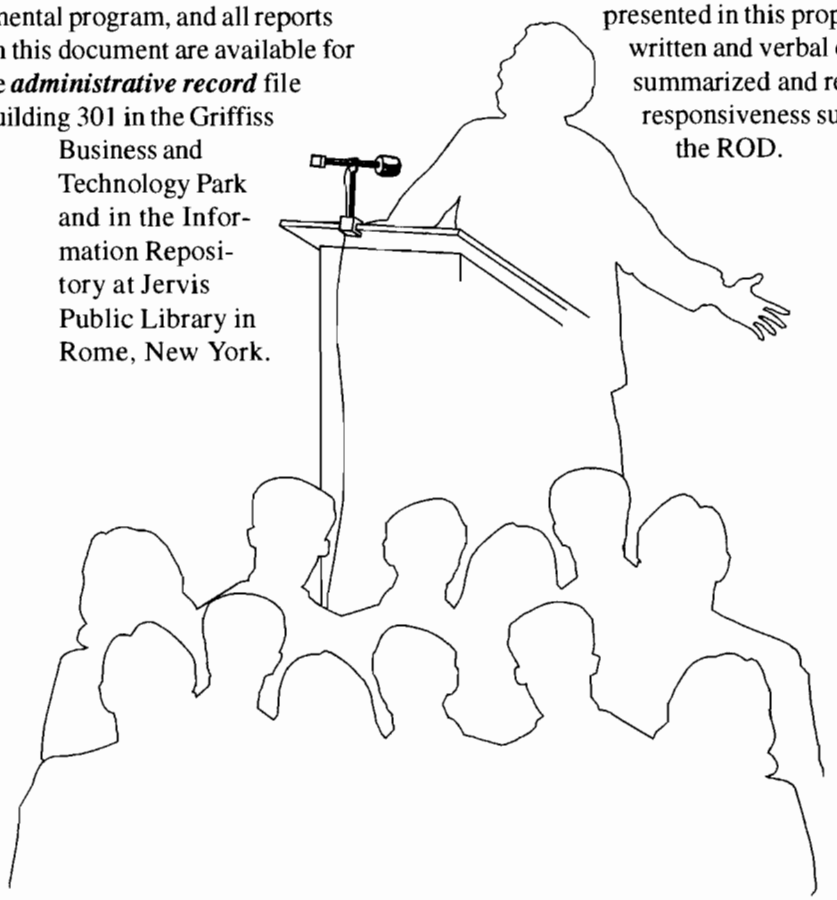
No further action is proposed for soils at the Landfill 4 AOC. Radioanalytical results from the Final Closure Certification Report indicate that the site poses no significant threat to the public health or the environment. However, due to some uncertainty in the results of the risk assessment performed during the RI (risks due to ingestion of groundwater exceeded the acceptable value due to naturally occurring radionuclides that may not be associated with the vault), groundwater monitoring will be performed at Landfill 4. In addition, deed restrictions will be incorporated into all property transfer documents for the duration of the groundwater monitoring program and until the EPA and NYSDEC concur with the removal of the restrictions.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take remedial action at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' remedial action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the preferred alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 14 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by March 8, 2000.

Public Comment Period

The agencies have set a public comment period from February 7, 2000 to March 8, 2000, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for 5:00 pm, Wednesday, February 23, 2000, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline
Landfill 4

Problem Identification/ Records Search: 1981

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Problem Confirmation and Quantification: 1982

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Field Investigation: 1985

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Griffiss AFB added to National Priorities List: 1987

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Health Assessment: 1988

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EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

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Griffiss designated for realignment by BRAC: 1993 and 1995

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ATSDR Health Assessments: 1995 Addendum: 1996

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Remedial Investigation Report Draft-Final: December 1996

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Final Closure Certification Report: December 1997

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No Further Action for Soils and Groundwater Monitoring Proposed Plan Final: February 2000

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Public Comment Period: February 7, 2000 - March 8, 2000

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

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Place
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Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Landfill 4 AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Landfill 4 AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Landfill 4
AOC at the former
Griffiss AFB,
and to solicit
your comments.

Errata Sheet:

Building 20:

1. Page 8, First paragraph left hand column: Change paln to plan in the last sentence

2. Page 8, first main paragraph, right hand column: Revise as follows (in bold)

"The current land use designation for the Building 20 AOC is industrial. In accordance with the Griffiss Redevelopment Planning Council redevelopment scenario, the future land use designation is **industrial/commercial**. The human health risk assessment ...."

3. Page 9, last paragraph of Carcinogenic Risk Section: Add the following to the end of the section:

"Although arsenic did not exceed standards, it was included in the risk assessment and did contribute to the potential risk at this site."

4. Page 9, last paragraph of Noncarcinogenic Risk Section: Revise the third paragraph as follows:

".... contaminated with thallium, manganese, antimony, and arsenic. **Although arsenic did not exceed standards, it was included in the risk assessment and did contribute to the potential risk at this site.** None of the four contributors ...."

5. Page 9, Carcinogenic and Noncarcinogenic Risk Sections: Delete the word **"incidental"** from the "incidental ingestion of groundwater" statements in both sections

Also, throughout the risk section change "is" to "was" to make the risk past tense.

6. Page 10, middle right hand column: Revise section "Uncertainties" as follows (in bold)

"; (6) It was assumed that groundwater **would** be used **as a potable water source under the** industrial purposes **scenario (ie. showering, ingestion, industrial processes)** in the future, which is unlikely. This would ....."

7. Page 10, "INTERIM REMEDIAL ACTION": Revise the first paragraph as follows::

"In, 1998, **based upon the results of the RI and baseline risk assessment,** an interim remedial action was performed to remove contaminated soil beneath the floor near the northwest corner of the building (see Figure 3). **It was determined that the removal of contaminated soils from this location would mitigate the majority of contamination and resulting risk associated with this site.** The work consisted ...."

8. Also, in the Interim Removal Action section, revise the middle of the third paragraph to read "Confirmatory samples were taken after the removal action was completed to verify the effectiveness of this interim remedial action. **The Air Force, USEPA, and NYSDEC compared the results of the confirmatory soil samples to the risk based cleanup goals and NYSDEC TAGM 4046. After agreement was reached that** the project goals were met, the excavated area was backfilled with clean material and the concrete floor slab replaced."

9. Page 11, DESCRIPTION OF THE PREFERRED ALTERNATIVE, revise the middle of the first paragraph as follows:

:"Five-year reviews will be performed **by the Air Force in conjunction with the USEPA and NYSDEC** to ensure that future ..."

10. Page 11, DESCRIPTION OF THE PREFERRED ALTERNATIVE, revise the right hand paragraph as follows:

"**As a result of** the interim remedial action, the majority of **soil contamination found during the RI investigations** at this AOC **were removed and the remaining soils** do not exceed standards and guidance values ..."

"Therefore, the concentrations of the chemicals remaining in the soil after the completion of the remedial action and the results of baseline risk assessment for the chemicals found in the groundwater demonstrate that the remaining site contaminants in conjunction with the institutional controls mentioned earlier, pose no current or potential threat to public health or the environment."

Building 222:

1. Page 9, Carcinogenic and Noncarcinogenic Risk Sections: Delete the word **"incidental"** from the "incidental ingestion of groundwater" statements in both sections

Also, throughout the risk section change "is" to "was" to make the risk past tense and remove "grab" from grab groundwater.

2. Page 10, middle left hand column, first paragraph: Revise section "Uncertainties" as follows (in bold)

"; (6) It was assumed that groundwater **would** be used **as a potable water source under the** industrial purposes **scenario (ie. showering, ingestion, industrial processes)** in the future, which is unlikely. This would ....."

3. Also, in the Interim Removal Action section, revise the middle of the second paragraph on page 11 to read "Confirmatory samples were taken after the removal action

was completed to verify the effectiveness of this interim remedial action. **The Air Force, USEPA, and NYSDEC compared the results of the confirmatory soil samples to the risk based cleanup goals and NYSDEC TAGM 4046. After agreement was reached that** the project goals were met, the excavated area was backfilled with clean material and the concrete floor slab replaced."

4. Page 11, DESCRIPTION OF THE PREFERRED ALTERNATIVE, revise the right hand paragraph as follows:

"**As a result of** the interim remedial action, the majority of **soil contamination found during the RI investigations** at this AOC **were removed and the remaining chemicals detected** do not exceed standards and guidance values ..."

"Therefore, the concentrations of the chemicals remaining in the soil after the completion of the remedial action demonstrate that the remaining site contaminants pose no current or potential threat to public health of the environment."

Building 255:

1. Page 10, bottom left hand column: Revise as follows (in bold)

"Carcinogenic Risk

The total carcinogenic risk associated with exposure by utility workers to subsurface soils **was** 2 in 1,000,000 (2x10-6), which is within EPA's target risk range.

The total carcinogenic risk associated with exposures by construction workers to soil **was** 1 in 1,000,000 (1x10-6), which is within EPA's target risk range.

The total carcinogenic risk associated with exposure to contaminants in groundwater by industrial workers **was** 5 in 10,000 (5x10-4), which **is** above EPA's target risk range. PAHs and PCBs were the major risk contributors via the inhalation and dermal pathways.

--- DELETE THIS PARAGRAPH --- "The total carcinogenic risk associated with exposure to contaminants in groundwater by industrial workers is 2 in 100,000 (2x10-5), which is above EPA's target risk range. Chlordane was the major contributors to the risk." **DEC note – We decided to remove the well risk data and just use the grab groundwater.**

2. Page 10, middle right hand column: Revise third sentence in section "Noncarcinogenic Risk" as follows (in bold)

"The total HI for industrial workers to constituents in groundwater **was** 0.8."

3. Page 10, Carcinogenic and Noncarcinogenic Risk Sections: Throughout the risk section change "is" to "was" to make the risk past tense.

4. Page 10, bottom right hand column: Revise section "Uncertainties" as follows (in bold)

"; (4) It was assumed that groundwater **would** be used **as a potable water source under the** industrial purposes **scenario (ie. showering, ingestion, industrial processes)** in the future, which is unlikely. This would ....."

5. Page 11, "INTERIM REMEDIAL ACTION": Revise the first paragraph as follows::

"In, 1998, **based upon the results of the RI and baseline risk assessment,** an interim remedial action was performed to remove contaminated subsurface soils at the drywell located west of the former site of Building 255. Building 255 was demolished prior to remedial actions at the site. **It was determined that the removal of contaminated soils from this location would mitigate the majority of contamination and resulting risk associated with this site.** The work consisted ...."

6. Also, in the Interim Removal Action section, revise the middle of the third paragraph to read "Confirmatory samples were taken after the removal action was completed to verify the effectiveness of this interim remedial action. **The Air Force, USEPA, and NYSDEC compared the results of the confirmatory soil samples to the risk based cleanup goals and NYSDEC TAGM 4046. After agreement was reached that** the project goals were met, the excavated area was backfilled with clean material and the concrete floor slab replaced."

7. Page 12, DESCRIPTION OF THE PREFERRED ALTERNATIVE, revise the middle of the first paragraph as follows:

:"Five-year reviews will be performed **by the Air Force in conjunction with the USEPA and NYSDEC** to ensure that future ..."

8. Page 12, DESCRIPTION OF THE PREFERRED ALTERNATIVE, revise the second paragraph as follows:

"**As a result of** the interim remedial action, the majority of **soil contamination found during the RI investigations** at this AOC **were removed and the remaining chemicals detected** do not exceed standards and guidance values ..."

"Therefore, the concentrations of the chemicals remaining in the soil after the completion of the remedial action demonstrate that the remaining site contaminants pose no current or potential threat to public health of the environment."

Building 112:

1. Page 8, top of left hand column: Change two pesticides to two **PCBs.**

2. Page 9, right hand column, delete the section "High Power Laboratory"

3. Page 10, delete the left hand column and the top of the right hand column. This has to do with the IRA which is mentioned later.

4. Page 12, first paragraph right hand column and page 13 last paragraph on noncarcinogenic risk: Delete "grab" from grab groundwater.

5. Pages 12 and 13, Carcinogenic and Noncarcinogenic Risk Sections: Throughout the risk section change "is" to "was" to make the risk past tense.

6. Page 13, top right hand column: Revise section "Uncertainties" as follows (in bold)

"; (4) It was assumed that groundwater **would** be used **as a potable water source under the** industrial purposes **scenario (ie. showering, ingestion, industrial processes)** in the future, which is unlikely. This would ....."

7. Page 14, "INTERIM REMEDIAL ACTION": Revise the first paragraph as follows::

"In, 1998 and 1999, **based upon the results of the RI and baseline risk assessment,** an interim remedial action was performed to **remove contaminated surface and subsurface soils** at the Building 112 AOC. **It was determined that the removal of contaminated soils from these locations would mitigate the majority of contamination and resulting risk associated with this site.** The work consisted ...."

8. Page 15, DESCRIPTION OF THE PREFERRED ALTERNATIVE, revise the middle of the first paragraph as follows:

:"Five-year reviews will be performed **by the Air Force in conjunction with the USEPA and NYSDEC** to ensure that future ..."

9. Page 15, DESCRIPTION OF THE PREFERRED ALTERNATIVE, revise the second paragraph as follows:

"**As a result of** the interim remedial action, the majority of **soil contamination found during the RI investigations** at this AOC **were removed and the remaining chemicals detected** do not exceed standards and guidance values ..."

"Therefore, the concentrations of the chemicals remaining in the soil after the completion of the remedial action and the results of baseline risk assessment for the chemicals found in the groundwater demonstrate that the remaining site contaminants pose no current or potential threat to public health of the environment."

TG

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

December 28, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 91-11732
Bldg. 26
Rome (C), Oneida County

Dear Mr. Rabe:

This letter is written to inform you that based upon review of documentation submitted to this office on December 12, 2000 and Mr. McDermott's letter of October 3, 2000, the soils portion of this spill has been closed as "not meeting state standards" as of December 26, 2000.

Further investigation of any potential groundwater contamination from this spill should be incorporated in work done for spill 9810949.

This closure does not alleviate you from liability should any unforeseen problem arise in the future as a result of this spill.

Thank you for your cooperation in resolving this matter.

If you have any questions, feel free to contact me.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco, NYSDEC
NFC:ds

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action, Room 242
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-4349 • **FAX:** (518) 457-4198
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

To: Tom Quinn, Assistant Director, Division of Environmental Remediation
From: Sal Ervolina, Bureau Director, Bureau of Eastern Remedial Action
Subject: Proposed Plans for Bldgs. 20, 122, 222, 255 & T-9; Griffiss AFB (ID No. 633006)

Date: December 22, 2000

Attached are the Draft Final Proposed Plans for the five referenced Areas of Concern (AOC) at Griffiss Air Force Base, Oneida County.

The following is a brief summary of each site and my recommendation.

- **Bldg. 20** is the base's Locomotive Roundhouse, serving primarily as a maintenance facility for diesel locomotives. The site was originally listed as an AOC due to PCBs oils being found in an excavation during building renovations. The PCBs were cleaned-up in a poorly documented action in 1985 . The primary focus of the RI was to see if there was any remaining contamination in the wake of the removal action. The study revealed fairly insignificant contamination, primarily semi-volatiles in a shop floor drainage sump. The sump was removed under an IRM, and results of sump and soil cleanup were submitted in May of 2000. The confirmatory sampling indicated the removal achieved TAGM levels for the contaminants of interest. Groundwater on-site has tested positive for semi-volatiles, but despite being over standards and guidance, the levels are still quite low and not amenable to treatment. **Proposed Plan:** The plan calls for institutional controls limiting the land use to commercial/industrial, as well as restricting any use of groundwater without NYSDOH approval. These controls are already in-place, as this area was included under the F-1 Parcel transfer. **Recommendation:** I recommend concurring with the Proposed Plan.

- **Bldg. 112** was formerly used as a "High Power Laboratory" research facility. The site consists of several discrete source areas: the "Loading Dock Area", the "Rooftop Transformer Spill Area" and a drywell, a suspected "PCB Dump Area" and a "PCB Waste Oil Above Ground Tank Storage Area". Each of these concerns was addressed during the remedial investigation and an IRM was performed at the Loading Dock Area and the Waste Oil Storage Area due to PCBs at levels above 1 PPM in the surface soils and above 10 PPM in subsurface soils. During the remediation of these two areas, much higher levels were found (e.g., as high as 22,000 PPM in the loading dock area subsurface soils) though this was not routine. Ultimately, project goals were attained at each area and the excavations were backfilled with clean fill. The other areas showed no or only

minor excedances of guidance values. While the RI detected no PCBs in the groundwater, a separate action performed under RCRA relative to closure of the lab did reveal PCB slightly above standards in one out of three wells. The Air Force has been requested to continue monitoring, and the first post closure sampling came back non-detect. **Proposed Plan:** The plan calls for institutional controls limiting the land use to commercial/industrial, as well as restricting any use of groundwater without NYSDOH approval. **Recommendation:** I recommend concurring with the Proposed Plan.

- **Bldg. 255** was the location of a vehicle maintenance facility and auto hobby shop. The main focus of the investigation were three drywells believed to have serviced the building; however, this AOC was also used as a vehicle for the investigation of several other suspected drywells located in the same industrialized area of the base (known as Tin City). Though not entirely clear from the Proposed Plan, only the drywell located immediately west of building 255 revealed significant concentrations of contaminants. The other suspected drywells were either not located, or when they were, showed only very low concentrations of hazardous substances. The western drywell was excavated and backfilled under an IRM in 1998. TAGM levels were used as the cleanup criteria and project goals were met. While groundwater samples in the immediate area of the western drywell initially revealed moderately high levels of VOCs (e.g., toluene @ 780 ppb, xylenes @ 247 ppb, 1,2 DCE @ 96 ppb), subsequent investigations in the immediately downgradient area have shown much lower levels. **Proposed Plan:** While this plan is for soils only (i.e., groundwater in the "Tin City Area" is being assessed separately under the On-Base Groundwater AOC) the Proposed Plan calls for both institutional controls limiting the land use to commercial/industrial , as well as restricting any use of groundwater without NYSDOH approval. **Recommendation:** I recommend concurring with the Proposed Plan.

- **Bldg. 222** was the former location of a truck maintenance facility as well as a former entomology shop (i.e., pesticide storage/mixing room). The main focus of the RI was a drywell located within the building which was know to have received neutralized battery acid. Though there had been an earlier removal, RI sampling showed there were still very high levels of lead and antimony present (i.e., 11,500 PPM and 1,460 PPM, respectively). A follow up IRM was conducted in 1998 which was successful in achieving TAGM levels through the excavation and disposal of 45 cubic yards of contaminated soils. **Proposed Plan:** While this plan is for soils only (i.e., groundwater in the "Tin City Area" is being assessed separately under the On-Base Groundwater AOC) the Proposed Plan calls for both institutional controls limiting the land use to commercial/industrial, as well as restricting any use of groundwater without NYSDOH approval. **Recommendation:** I recommend concurring with the Proposed Plan.

- The ***T-9 Storage AOC*** is a 30,000 square foot grass and gravel lot formerly used for parking heavy equipment, storage of herbicides and storage of petroleum-based paving products. The RI included extensive field-screening of soils and groundwater, soil sampling, and monitoring well installation and sampling. The predominant contaminants in site soils were PAHs (e.g., bezo(a)pyrene at 11 ppm vs. a TAGM value of 61 ppb), metals and TPH (present in all 43 surficial samples at a range of 65 - 4590 ppm). While the industrial-use risk assessment did not indicate a problem, regulators and the local citizenry requested a removal of the soils in an effort to lessen the burden of certain deed restrictions,

as well as to provide an extra measure of safety. This action was carried out in April of 1998, and while TAGM values were not achieved in all areas, the removal was successful in reducing contaminant levels to below 1 PPM for all constituents. Though Level II groundwater field screening using hydropunch samples indicated VOC contamination above standards, groundwater monitoring wells at the site showed surprisingly little contamination (several metals, one SVOC, one herbicide and TPH slightly exceeding standards). ***Proposed Plan:*** While this plan is for soils only, the Proposed Plan calls for both institutional controls limiting the land use to commercial/industrial, as well as restricting any use of groundwater without NYSDOH approval. Groundwater will be further assessed under open Spill # 9702173. **Recommendation:** I recommend concurring with the Proposed Plan.

A briefing in your office has been scheduled to discuss these sites more fully.

CC: M. O' Toole (w/attach)
M. Chen (w/attach)
W. Daigle (w/attach)

Proposed Plan

T-9 STORAGE AOC



Former Griffiss Air Force Base
Rome, New York
Public Comment Period
XXXXX X, 2001 - XXXXX X, 2001

December 2000

Air Force Recommends No Further Action for Soils with Land Use Restrictions at the T-9 Storage Area of Concern

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This *proposed plan* is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). The Air Force recommends no further action for soils with land use restrictions for industrial/commercial use for the T-9 Storage *Area of Concern.* Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. Groundwater at the T-9 AOC is being further evaluated under the NYSDEC Spills Program (Spill # 9702173).

The document has been prepared in accordance with public participation requirements of the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended*, the *National Contingency Plan*, and the former Griffiss Air Force Base (AFB) *Federal Facility Agreement.* In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies."

This plan is intended to elicit public comments on the proposal to take no further action for soils with land use restrictions at the site. The final *Record of Decision* will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at the T-9 Storage AOC.
- The proposed plan to take no further action for soils with land use restrictions at the T-9 Storage AOC.
- How you can participate in the final decision process for the T-9 Storage AOC.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
A public document that identifies the selected action at a site,
outlines the process used to reach a decision on the remedy,
and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Because of its flat topography and high average precipitation, the former Griffiss AFB is considered a ***groundwater recharge zone.***

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The former Griffiss AFB was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances and hazardous wastes were used, stored, or disposed of at various sites on the installation. The defense missions involved the procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to detect, locate, and quantify contamination of areas by these substances and wastes. These studies and investigations included a records search in 1981, involving interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification Studies in 1982 and 1985; soil and groundwater analyses in 1986; a basewide health assessment in 1988 conducted by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific studies and investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB dated October 23, 1995 and an addendum to the assessment report dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force is required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of environmental ***Areas of Concern*** on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a baseline risk assessment; a community relations plan; and the RI report. The Air Force delivered a draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The draft No Further Action Proposed Plan was delivered in February, 1998. The draft Closure Certification Report for Interim Remedial Action was delivered on May 24, 2000.

This proposed plan to take no further action for soils with land use restrictions is based on an evaluation of potential threats to human health and the environment due to contamination in the soil and the performance of interim remedial actions at the T-9 Storage AOC.

During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirement (ARAR)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

TBCs (To Be Considered)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, background screening concentrations.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site. For example, arsenic and other metals are commonly found in the earth's crust.

T-9 STORAGE AREA OF CONCERN

The T-9 Storage Area AOC covers approximately 30,000 square feet and is located in the central industrial portion of the former base at the intersection of Brooks Road and Selfridge Street (see Figure 1). The site is an open grass and gravel lot that was reportedly used for parking heavy equipment and storing herbicides and petroleum-based paving products for grounds and maintenance (see Figures 2 and 3). The property was acquired in 1942 when the area was primarily pasture. Several buildings were constructed in the vicinity of the site after the land was acquired: Buildings 5, 6, 7, 8, 9, and 10, and the Base Gas Station (Building 43). Currently, only Building 43 exists in the vicinity of the site. Building 9, for which Site T-9 is designated, was used as a motor pool area and was demolished in 1997.

The T-9 Storage AOC formerly contained a 550-gallon kerosene aboveground storage tank (AST) and numerous 55-gallon drums of soil cuttings from previous environmental investigations. It was reported that the AST had leaked on several occasions, and stained soils were observed at the former AST location. In 1991, the 500-gallon tank was replaced with a mobile 275-gallon kerosene tank in the same location. The mobile tank was relocated to Building 8 sometime between 1992 and 1996 (exact time unknown) and was then removed from Building 8 in December 1996. Also, trucks carrying asphalt were reportedly rinsed with kerosene, and the rinsate was reportedly discharged onto the ground. This is suspected of being the primary source of contamination at the T-9 Storage AOC (the length of time this practice continued is unknown).

Surface water runoff for the T-9 Storage Area AOC is collected in the base storm drain system, which discharges to Rainbow Creek and the culverted portion of Sixmile Creek. Groundwater flows in a south-to-southeasterly direction and was encountered from 3 feet below ground surface (BGS) in the western portion of the AOC to 12 feet BGS in the northern portion of the AOC.

Surface and subsurface soils were characterized in the RI as being brown, sandy and gravelly silt.

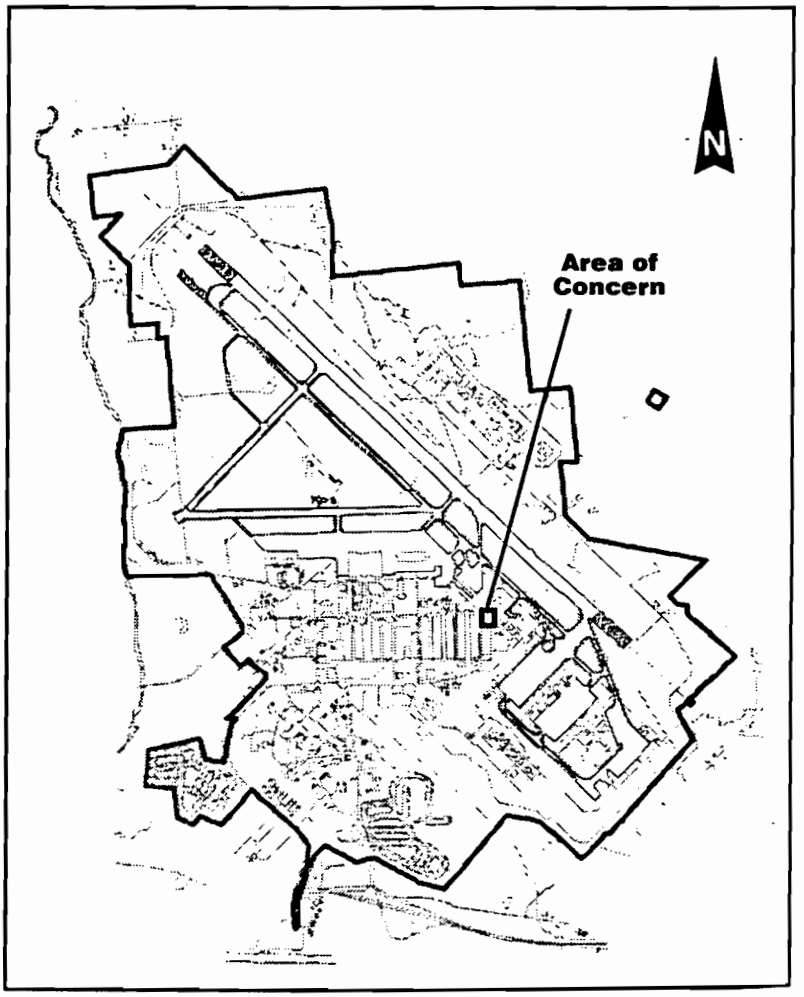


Figure 1: The T-9 Storage Area AOC is located in the central industrialized portion of the former Griffiss AFB.



Figure 2: The T-9 Storage Area is a grass and gravel lot. Building 45, a fire station north of the storage area, can be seen across the lot.

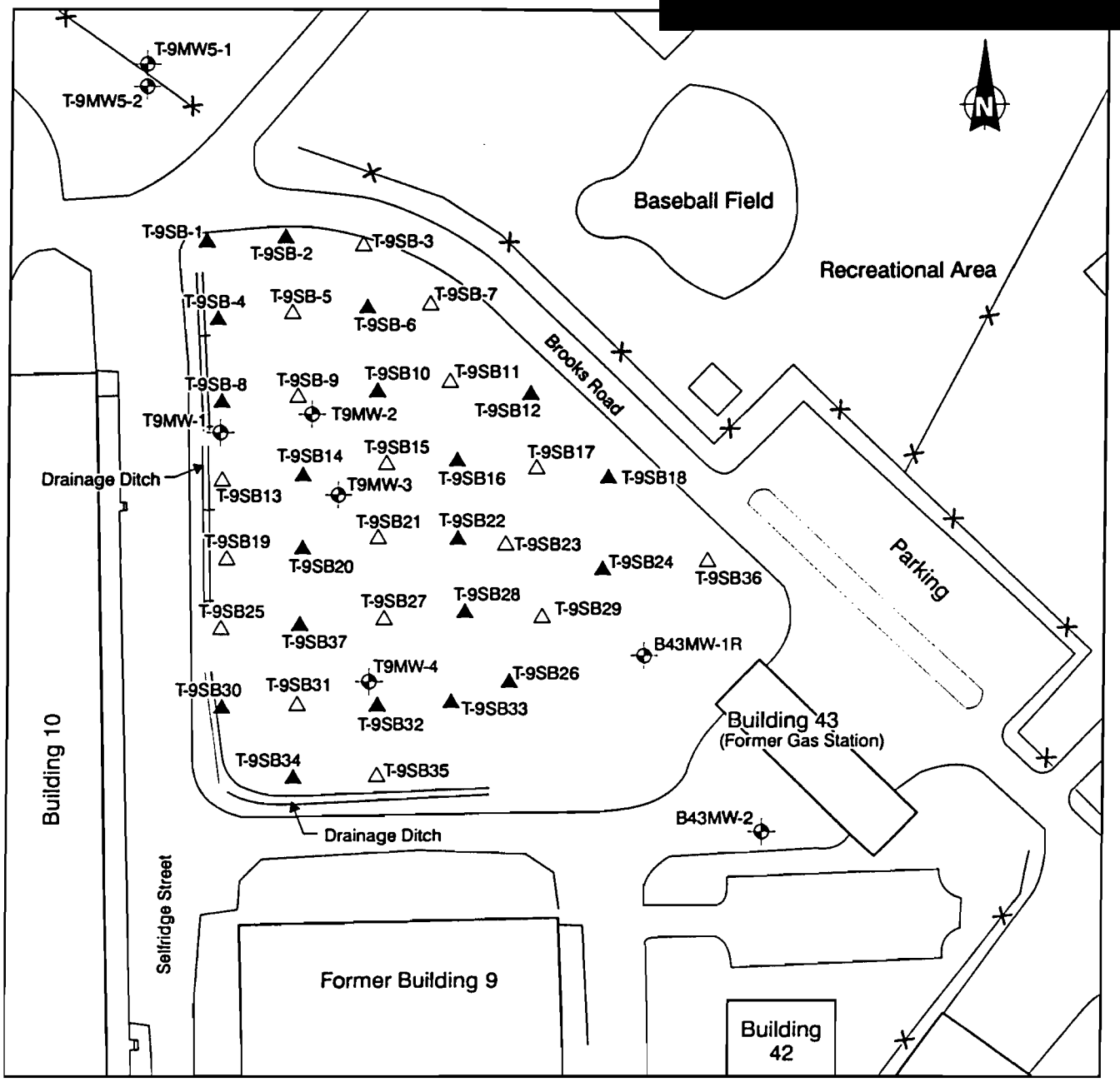


Figure 3: T-9 Storage AOC

SUMMARY OF SITE ACTIVITIES

Investigations

Previous investigations conducted at the T-9 Storage Area AOC consisted of a 1986 soil and groundwater study and four rounds of groundwater sampling conducted in 1992. Several contaminants were detected in soils and groundwater during these investigations; however, no remedial actions were performed prior to the RI. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine if any remedial action is necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions. Field activities included aquifer testing, topographic and location surveys, drilling, monitoring well installation, surface and subsurface soil sampling, and groundwater sampling. The following summarizes the RI field sampling efforts conducted at the T-9 Storage Area AOC.

RI field activities began in May 1994. Surface and subsurface soil samples were collected from 36 boreholes. Subsurface soil samples were collected at 2-foot intervals from 0 to 12 feet BGS. A total of 106 samples were collected for field screening at an on-site laboratory to determine which samples would be sent for off-site analysis. Forty-six subsurface soil samples (those with the highest concentrations) were then sent for confirmatory analysis to a commercial laboratory. In November 1994, surface soil samples and several confirmatory subsurface soil samples were recollected due to laboratory errors associated with the first sampling round.

Volatile Organic Compounds (VOCs) a group of organic compounds that have a tendency to vaporize readily.

Semivolatile Organic Compounds (SVOCs) a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

Three ***volatile organic compounds*** were detected in some of the surface soil samples. All concentrations of VOCs were below soil guidance values.

Twenty-eight ***semivolatile organic compounds***, 25 pesticides, 26 polychlorinated biphenyls (PCBs), and 16 metals were detected in surface soil samples. Seven SVOCs, one pesticide, three PCBs, and 12 metals were detected in surface soil samples at concentrations exceeding potential soil guidance values (see Table 1). Petroleum hydrocarbons were detected in each of the surface soil samples at a mean concentration of 602 mg/kg. Cyanide was detected in two samples at a mean concentration of 1.2 mg/kg.

Field screening results indicated the presence of VOCs, SVOCs, and pesticides in the subsurface soils. Twelve VOCs, 24 SVOCs, 23 pesticides, one PCB, and 24 metals were detected in the confirmatory subsurface soil samples. The most frequently detected VOC was toluene, which was detected in 18 of 43 samples at a mean concentration for all samples of 2.7 µg/kg. Four of the VOCs were petroleum-related constituents. The remaining eight VOCs were chlorinated or nonchlorinated solvents. Of the detected compounds, one VOC, six SVOCs, one PCB, and 18 metals exceeded the most stringent guidance values (see Table 2). The sample locations for the SVOCs where concentrations exceeded the guidance values were widespread rather than being concentrated in one area, which may indicate random contamination associated with small spills or leaks from vehicles. SVOC contamination at this site is limited primarily to surface and shallow subsurface soils. These findings are consistent with the anticipated nature of contamination based on the AOC's history and use.

Table 1
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
T-9 STORAGE AOC
SURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	55J - 14,000J	17/37	224[a]
Benzo(a)pyrene	59J - 11,000J	26/37	61[a]
Benzo(a)fluoranthene	26J - 15,000J	6/37	1,100[a]
Benzo(k)fluoranthene	44J - 4,200J	3/37	1,100[a]
Chrysene	94J - 13,000J	11/37	400[a]
Dibenzo(a,h)anthracene	50J - 1,500J	5/36	14[a]
Indeno(1,2,3cd)pyrene	54J - 5,500J	2/37	3,200[a]
Pesticides/PCBs (µg/kg)			
Dieldrin	0.81J - 120J	4/53	40[b]
PCB-1242	130	1/53	90[b]
PCB-1248	1,390J	1/53	90[b]
PCB-1260	19J - 310J	7/53	90[b]
Metals (mg/kg)			
Antimony	3.8	2/42	3.4[c]
Arsenic	1 - 7.1	2/42	4.9[c]
Barium	8.1 - 495	4/42	300[a]
Cadmium	0.34J - 1.99J	1/42	1.0[a]
Calcium	1,270J - 171,000	10/42	23,800[c]
Total chromium	7.3 - 30	4/41	22.6[c]
Copper	9.6 - 94.3J	5/42	43[c]
Lead	9.6 - 142	16/42	36.2[c]
Manganese	242 - 6,550	1/41	2,110[c]
Potassium	255 - 2,110	1/42	1,990[c]
Sodium	56J - 2,350	12/42	259[c]
Zinc	35.5J - 145	5/42	120[c]

[a] NYS soil cleanup objectives.

[b] Proposed RCRA corrective action levels.

[c] Background screening concentration.

Key:
J = Estimated concentration.*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

SUMMARY OF SITE ACTIVITIES (Cont.)

The groundwater investigation performed during the RI included grab groundwater samples collected from temporary wells installed in 17 of the soil borings and groundwater samples collected from seven monitoring wells at the site.

The grab groundwater samples were considered field screening samples and analyzed at an on-site laboratory. These samples indicated the presence of benzene, ethylbenzene, chlorinated solvents, chrysene, benzo(a)anthracene, and several pesticides.

Table 2
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
T-9 STORAGE AOC, SUBSURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
VOCs(μg/kg)			
Acetone	2J - 220	1/43	200[a]
SVOCs (μg/kg)			
Benzo(a)anthracene	71J - 3,100J	5/29	224[a]
Benzo(a)pyrene	52J - 2,600J	7/29	61[a]
Benzo(b)fluoranthene	37J - 3,300J	1/29	1,100[a]
Benzo(k)fluoranthene	46J - 1,500J	1/29	1,100[a]
Chrysene	49J - 3,900J	3/29	400[a]
Dibenzo(a,h)anthracene	92J - 560J	2/29	14[a]
Pesticides/PCBs (μg/kg)			
PCB-1260	17.2J - 540	2/44	90[b]
Metals (mg/kg)			
Aluminum	2,690 - 42,800	2/35	18,300[c]
Antimony	3.9	1/35	3.4[c]
Arsenic	0.86 - 9.4J	3/35	4.9[c]
Beryllium	0.119J - 2.6	3/35	0.65[c]
Calcium	1,240 - 52,600	9/35	23,800[c]
Total chromium	3.4 - 55.1	2/35	22.6[c]
Cobalt	3.2 - 35.3	1/35	30[a]
Copper	5.2 - 79.2	3/35	43[c]
Iron	7,550 - 93,400	1/35	47,400[c]
Lead	3 - 204	1/35	36.2[c]
Magnesium	1,390 - 14,100	3/35	7,180[c]
Manganese	118 - 6,810J	4/35	2,110[c]
Mercury	0.23	1/35	0.1[c]
Nickel	8.69 - 74.9	2/35	46.1[c]
Potassium	268 - 6.32 x 10^6	2/35	1,990[c]
Selenium	0.28J - 4.5	1/35	2[a]
Sodium	57 - 1,370	7/35	259[c]
Zinc	23.4J - 272	1/35	120[c]

[a] NYS soil cleanup objectives.

[b] Proposed RCRA corrective action levels.

[c] Background screening concentration.

Key:
J = Estimated concentration.*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

Five VOCs (1,1,1-trichloroethane; 1,1-dichloroethane; acetone; chloroethane; and tetrachloroethylene) were detected at low concentrations in some of the groundwater samples collected from the monitoring wells; all concentrations were below standards and guidance values. Four SVOCs (bis[2-ethylhexyl]adipate; butylbenzylphthalate; di-n-butylphthalate; and diethylphthalate) were detected in groundwater samples at estimated concentrations below the standards and guidance values. Seven pesticides and 20 metals were detected in some of the groundwater samples. One pesticide slightly exceeded the groundwater standard and six metals exceeded the most stringent standards or guidance values (see Table 3). Petroleum hydrocarbons were detected in five of seven samples at concentrations ranging from 0.17 to 0.2 mg/L.

Table 3
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
T-9 STORAGE AOC, GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Pesticides/PCBs (µg/L)			
Dieldrin	0.004J	1/7	ND[a]
Metals (mg/L)			
Aluminum	0.088J - 3.38	4/7	0.05[b]
Antimony	0.0034	1/7	0.003[c]
Iron	0.013 - 7.23	5/7	0.3[a]
Lead	0.00083J - 0.0495	2/7	0.015[d]
Manganese	0.024 - 0.774	5/7	0.05[b]
Sodium	10.3 - 242	4/7	20[a]

[a] NYSDEC class GA ground water standard.

[b] Federal secondary maximum contaminant level.

[c] New York primary maximum contaminant level.

[d] Federal primary maximum contaminant level.

Key:
J = Estimated concentration.
ND = Nondetect

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the T-9 Storage AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with the contaminants found in the soils and groundwater at the site. The results of this assessment and the interim remedial action (see page 14) were considered when formulating this plan for no further action for soils with land use restrictions.

Human Health Risk Assessment

Background Information

A baseline human health risk assessment was conducted during the RI phase to determine whether chemicals detected at the T-9 Storage AOC could pose health risks to individuals under current and proposed future land use. As part of the baseline risk assessment, the following four-step process was used for assessing site-related human health risks for a reasonable maximum exposure scenario: Hazard Identification--identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment-- estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment--determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization--summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation efforts. All contaminants detected in the soils and groundwater at the site were considered chemicals of potential concern except for analytes detected in less than 5% of the subsurface soil samples at concentrations below the screening criteria, inorganics detected at concentrations less than twice the mean background, and essential human nutrients (i.e., calcium, iron, magnesium, potassium, and sodium). As a class, petroleum hydrocarbons were not included as a chemical of concern; however the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated.

The current and future land use designations for the T-9 Storage AOC are industrial/commercial. Populations that might be potentially exposed included landscape, utility, construction, and industrial workers. The various exposure scenarios for each population are described in Table 4.

Table 4
T-9 STORAGE AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

UTILITY AND CONSTRUCTION WORKERS	LANDSCAPE WORKER	INDUSTRIAL WORKER
• Incidental ingestion of soil • Inhalation of fugitive dust from soil • Dermal contact with soil	• Incidental ingestion of surface soil • Inhalation of fugitive dust from surface soil • Dermal contact with surface soil	• Ingestion of groundwater • Dermal contact with groundwater (during showering) • Inhalation of VOCs from groundwater (during showering)

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the T-9 Storage Area AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive subpopulations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and accross pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. Once either of these thresholds have been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as a point of departure for determining remediation goals for alternatives.

Results of Site-Specific Health Risk Assessment

Potential risks from exposure to COPCs at the T-9 Storage AOC were evaluated for utility, construction, landscape, and industrial workers during the RI, prior to the interim remedial action. The potential carcinogenic and noncarcinogenic risks from exposure to soil and groundwater are summarized below.

Carcinogenic Risk

The total carcinogenic risk for utility and construction workers exposed to subsurface soil were both calculated as 1 in 1,000,000 (1×10^{-6}), which is within the EPA's target risk range. Of the three potential exposure pathways, the greatest potential carcinogenic hazard was from incidental ingestion of soil for all workers.

SUMMARY OF SITE RISKS (Cont.)

The total carcinogenic risk to landscape workers exposed to surface soil was calculated as 7 in 1,000,000 (7×10^{-6}), which is within the EPA's target risk range.

The total carcinogenic risk for industrial workers exposed to groundwater was calculated as 1 in 1,000,000 (1×10^{-6}), which is within the EPA's target risk range.

The contaminant-specific risk calculations were well within EPA's acceptable risk levels, indicating that the chemicals detected in the soils and groundwater at the T-9 Storage Area AOC do not pose a current or potential carcinogenic risk to human health.

Noncarcinogenic Risk

Total HIs for utility and construction workers exposed to subsurface soils at the site were calculated at 0.04 and 0.6, respectively. The total HI for landscape workers exposed to surface soils was calculated at 0.2. The total HI for industrial workers exposed to groundwater was 0.3. These results indicate that potential adverse noncarcinogenic health effects to these workers are not expected to occur from exposure to chemical concentrations in the soils and groundwater.

Toxicity values were not available for acenaphthylene, benzo(g,h,i)perylene, dichloroprop, lead, 2-methylnaphthalene, and phenanthrene; thus, a quantitative risk assessment could not be performed. Therefore, a qualitative assessment of the data was performed by comparing the concentrations to soil screening values, if available. Acenaphthylene was detected at estimated concentrations ranging from 0.041 mg/kg to 0.14 mg/kg, well below the most stringent guidance value of 41 mg/kg. Benzo(g,h,i)perylene was detected at concentrations ranging from 0.042 mg/kg to 5.1 mg/kg in 30 of 68 soil samples, well below the soil guidance value of 50 mg/kg.

Dichloroprop, an herbicide, was detected at concentrations ranging from 0.00005 mg/kg to 0.0006 mg/kg in six of 92 soil samples, but there are no published standards or guidance values for dichloroprop. Lead was detected in 76 of 77 soil samples at concentrations ranging from 3.0 mg/kg to 204 mg/kg, which is below EPA's recommended guidance value of 400 mg/kg (based on residential soil exposure for children). 2-Methylnaphthalene was detected in 10 of 67 soil samples at concentrations ranging from 0.024 mg/kg to 0.72 mg/kg, well below the most stringent guidance value of 36.4 mg/kg. Phenanthrene was detected in 46 of 67 soil samples at concentrations ranging from 0.043 mg/kg to 11.0 mg/kg, well below the most stringent guidance value of 50 mg/kg.

Groundwater at the T-9 Storage Area AOC is being further evaluated under the NYSDEC Spills Program (Spill # 9702173)

Uncertainties

Uncertainties exist in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and conservative assumptions throughout the entire risk assessment process results in an assessment that is protective of human health and the environment. Examples of uncertainties associated with the risk assessment for the T-9 Storage Area include: (1) In quantifying exposure, it was assumed that chemicals are uniformly distributed over a defined area. At this AOC, chemical samples were collected from the suspected source of contamination rather than through random sampling, and this can result in a potential overestimation of risk; (2) The HIs associated with dermal contact with soil could not be quantified for many of the COPCs due to the lack of dermal absorption factors necessary for the calculation, which may result in a potential underestimation of the risk; (3) When assessing the dermal pathway, it was assumed that workers would come into contact with the soil, although the use of protective clothing is more likely. This assumption would result in a potential overestimation of risk; (4) It was assumed that for the proposed future use scenario, construction would occur over a one-year period, though it will probably require less time to complete due to the small size of this AOC. This assumption would result in a potential overestimation of risk; and (5) It was assumed that groundwater would be used for industrial purposes in the future which is very unlikely due to the availability of existing water supplies at the former base and in the City of Rome. This assumption would result in a potential overestimate of risk.

Ecological Risk Assessment

A baseline ecological risk assessment was conducted during the RI. Ecological risks were assessed for the short-tailed shrew and raccoon through exposure to surface soil through direct (ingestion of or dermal contact with surface soil) and indirect (ingestion of vegetation or other biota) routes. Hazard quotients were calculated for each of the indicator species. The HIs calculated for the raccoon were less than 1, with the highest value of 0.0046 for vanadium. The HIs for all chemicals were less than 1 for the shrew, with the exception of aluminum, with an HI of 2. This value indicates a slight potential for adverse effects to the shrew. However, due to uncertainties and the conservative nature of the risk assessment methodology, in addition to the location of this AOC in the industrial area of this base, the risks to the ecological receptors are not considered to be significant at this AOC.

Modeling of bioaccumulation to higher order species was not performed, nor was the cumulative effect of multiple contaminants considered; this tends to underestimate the risk to ecological receptors.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

INTERIM REMEDIAL ACTIONS

In February 1998, a No Further Action Proposed Plan was issued. However, based on public comments on the No Further Action Proposed Plan and the required deed restrictions, the Air Force entered into an agreement with the EPA and the NYSDEC to perform contaminated soil removal activities at the site. Cleanup goals were established such that soil was to be removed to a point where no VOCs or SVOCs exceeded a concentration of one part per million (ppm).

In April 1998, the interim remedial actions were carried out at the T-9 Storage Area at three locations: Area A, B, and C (see Figure 4). These locations were identified based on soil contamination data from previous investigations including the RI. The interim remedial action included the excavation of contaminated soil and transport of the soil to the Alert Apron and Apron 1 Land Farms on the former Griffiss AFB.

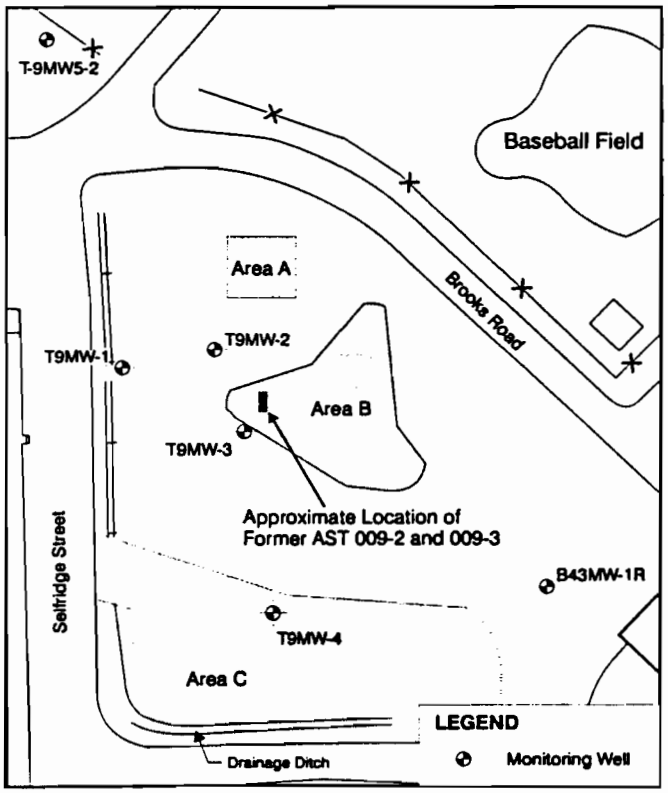


Figure 4: Interim Remedial Action Areas

The horizontal and vertical extent of contamination was evaluated by advancing Geoprobe soil borings in the vicinity of Areas A, B, and C. Soil samples were collected and screened in the field for the presence of petroleum hydrocarbons using a photoionization detector (PID). Samples were also collected from 20% of the soil borings to confirm the results of the PID. Based on field PID readings, the majority of the contaminated soil was encountered at Area B, and within the boundaries and south of Area C. Additional contamination was found approximately 50 feet outside Area B, and at the southeast corner of Area A.

Remedial action activities that occurred during the excavation of areas A, B, and C included: the excavation and removal of contaminated soils; removal of a 60" diameter storm sewer pipeline in Area B to allow removal of contaminated soil surrounding the pipeline; excavation and removal of an underground storage tank (UST) that was discovered in Area C during contaminated soil removal; collection of confirmation samples from the final excavations to ensure that contaminated soils had been removed; proper disposal of all wastes from the site; and restoration of the site.

The estimated volume of soil removed from Area A was 118 cubic yards. The confirmation samples collected from the walls and floor of the final excavation indicated that no VOC or SVOC contamination was present.

The estimated volume of soil removed from Area B was 2,300 cubic yards taken at depths ranging from 6- to 10-feet BGS. Other activities performed at Area B included the excavation and removal of a 6-inch transite sewer line and temporary removal of sections of a 60-inch storm sewer line so that contaminated soil in the vicinity of the lines could be removed. Twenty-nine confirmatory soil samples were collected from all Area B excavations following contaminated soil removal. All confirmatory sample concentrations were below the cleanup goals.

An estimated volume of 1,620 cubic yards of soil was excavated from Area C to a depth of 1- to 12-feet BGS. During the excavations, a 1,000-gallon underground storage tank (UST) and an abandoned 12-inch fuel line were excavated and removed. Approximately 900 gallons of water contaminated with petroleum products were pumped from the tank and disposed off site. Approximately 4,000 gallons of petroleum-contaminated water was pumped from the fuel line and disposed off site. Soil in the vicinity of the tank and line were also excavated. Other structures encountered during the investigation include a building foundation with a partial floor, a 6-inch PVC sewer line, and a 4-inch ductile steel line. Soil contamination was found in the vicinity of these structures and was excavated and removed. The foundation and a portion of the 6-inch line were also removed. A 1.5-inch galvanized lateral water line and transite sanitary sewer lines were also discovered. Several feet of each line were removed to allow for excavation of contaminated soil in the area.

A total of 31 confirmation samples were obtained from the Area C excavations; samples were collected from both the bottom and sidewalls. All the samples were analyzed for VOCs and SVOCs. Two confirmation samples indicated the presence of contaminated soil. Contaminated soils in these areas were then over-excavated and a second round of samples was taken. Confirmatory sample results were all below the project cleanup goals in Area C.

All excavated areas were backfilled with clean material after confirmatory sampling verified that the cleanup goals were achieved. The VOCs and SVOCs delineated during the RI were remediated by the interim remedial action along with petroleum-contaminated soils associated with the open petroleum spill # 9702173. The groundwater in the area is being further evaluated under this spill number as part of the NYSDEC Spills Program.

DESCRIPTION OF THE PREFERRED ALTERNATIVE

No further action for soils with land use restrictions for industrial/commercial use is proposed for the T-9 AOC. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. The transfer documents will contain the following restrictions to ensure that the reuse of the site is consistent with the risk assessment:

- The property will be industrial/commercial use unless permission is obtained from the EPA, NYSDEC, and the New York State Department of Health; and
- The owner or occupant of the property shall not extract, utilize, consume, or permit to be extracted any water from the aquifer below the ground surface within the boundary of the property unless such owner or occupant obtains prior written approval from the New York State Department of Health.

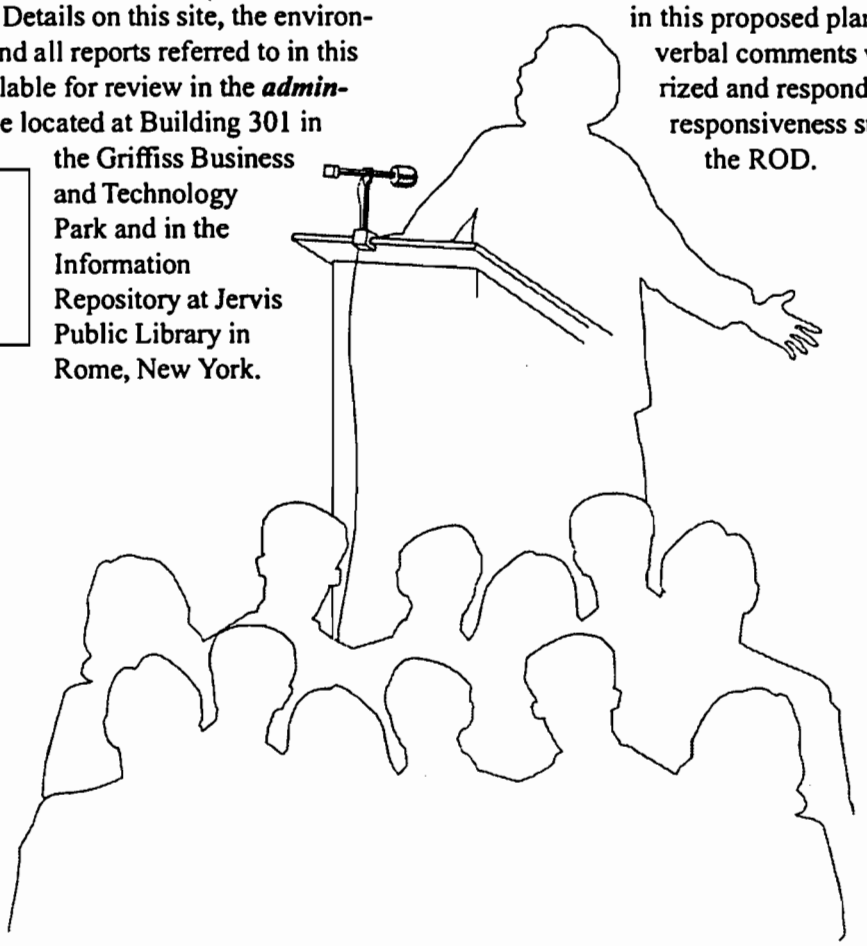
Following the interim remedial action, the majority of the chemicals detected at this AOC do not exceed standards and guidance values and the known source of the groundwater contamination has been removed. In addition, the baseline risk assessment for industrial/commercial use indicates that the levels of contamination present in the soils and groundwater prior to remediation fell within or below EPA's acceptable carcinogenic risk range and pose no noncarcinogenic risk to the utility, construction, landscape, or industrial workers. Therefore, the concentrations of chemicals in the soil following the remedial action and the baseline risk assessment demonstrate that the site contaminants pose no current or potential threat to public health or the environment. Groundwater at the T-9 AOC is being further evaluated under the NYSDEC Spills Program (Spill #9702173).

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take no further action for soils with land use restrictions at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' remedial action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the preferred alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 18 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by XXXX X, 2001.

Public Comment Period

The agencies have set a public comment period from XXXX X, 2001, to XXXX X, 2001, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for X:XX pm, XXXXXX, XXXX X, 2001, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline T-9 Storage AOC

Problem Identification/ Records Search: 1981

|

Problem Confirmation and Quantification: 1982

|

Field Investigation: 1985

|

Griffiss AFB added to National Priorities List: 1987

|

Health Assessment: 1988

|

USEPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

|

Griffiss designated for realignment by BRAC: 1993 and 1995

|

ATSDR Health Assessment: 1995 Addendum: 1996

|

Remedial Investigation Report Draft-Final: December 1996

|

No Further Action Proposed Plan Draft: February 1998

|

Public Comment Period: February 18, 1998 - March 20, 1998

|

Closure Certification Report Draft: February 2000

|

No Further Action for Soils with Land Use Restrictions Proposed Plan Draft-Final: December 2000

|

No Further Action for Soils with Land Use Restrictions Proposed Plan Final: XXXX 2000

|

Public Comment Period: XXXX X, 2001 - XXXX X, 2001

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The Air Force is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The New York State Department of Environmental Conservation

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The U.S. Environmental Protection Agency

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

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Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

T-9 STORAGE AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning T-9 Storage AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing is
to inform you of
the proposed
environmental plan
for the T-9 Storage AOC
at the former
Griffiss AFB,
and to solicit
your comments.

Proposed Plan

BUILDING 222 AOC

Former Griffiss Air Force Base
Rome, New York
Public Comment Period
XXXXX X, 2001 - XXXXX X, 2001

December 2000

Air Force Recommends No Further Action for Soils with Land Use Restrictions at Building 222 Area of Concern

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This *proposed plan* is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). The Air Force recommends no further action for soils with land use restrictions for industrial/commercial use at the Building 222 *Area of Concern.* Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. Groundwater at the Building 222 AOC is being further evaluated as part of the On Base Groundwater AOC Tin City operable unit.

The document has been prepared in accordance with public participation requirements of the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, the National Contingency Plan*, and the former Griffiss Air Force Base (AFB) *Federal Facility Agreement.* In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies."

This plan is intended to elicit public comments on the proposal to take no further action for soils with land use restrictions at the site. The final decision or *Record of Decision* will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Building 222 AOC.
- The proposed plan to take no further action for soils with land use restrictions at Building 222 AOC.
- How you can participate in the final decision process for Building 222 AOC.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level.

Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone.***

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priority List.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of ***Areas of Concern*** on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling analysis plan and a quality assurance project plan; and a baseline risk assessment; a community relations plan; and an RI report. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The draft Closure Certification Report for Interim Remedial Action was delivered on May 24, 2000.

This proposed plan for no further action for soils with land use restrictions is based on an evaluation of potential threats to human health and the environment due to contamination in the soil and groundwater, and the performance of interim remedial actions at the Building 222 AOC.

During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

BUILDING 222 BATTERY ACID DISPOSAL PIT AREA OF CONCERN

Building 222 was located in the west-central portion of the base (see Figure 1). This building was the former truck maintenance facility and entomology laboratory, and is located in an industrial complex referred to informally as "Tin City". A battery acid disposal pit (BADP) was located inside the building in the truck bay area of the building (see Figure 2). The pit was an opening approximately 2 square feet in the concrete floor that was covered with a steel grate. Baking soda-neutralized battery acids were discharged into the BADP from the 1940s to 1984.

Site surface soils consist of dark brown, fine to medium grained sand with gravel to a depth of 2 feet below ground surface (BGS). Subsurface soils consist of brown, fine to medium sandy silt with gravel.

Building 222 is located on an area of the base that is topographically level, with less than 2 feet of relief occurring in the surrounding area. Building 222 is not located near major natural surface water drainage features. Runoff from the site is channeled into the base storm drain system, which discharges to the New York State Barge Canal via Three-Mile Creek. Groundwater flow is toward the south-southeast.

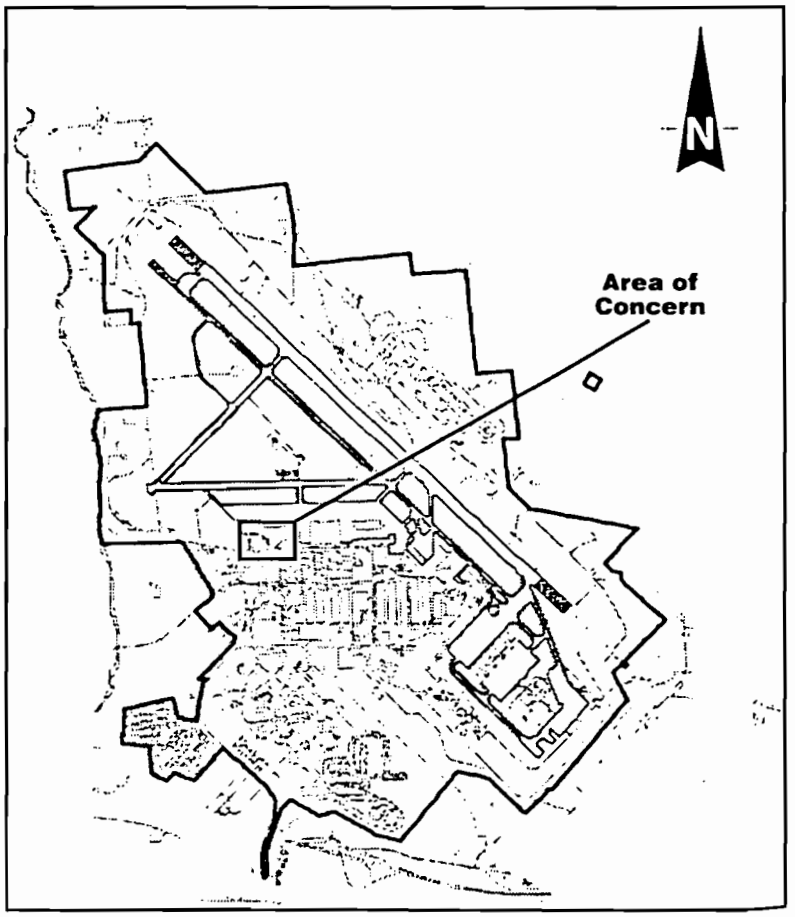


Figure 1: Building 222 AOC is located in the west-central portion of the former Griffiss AFB.

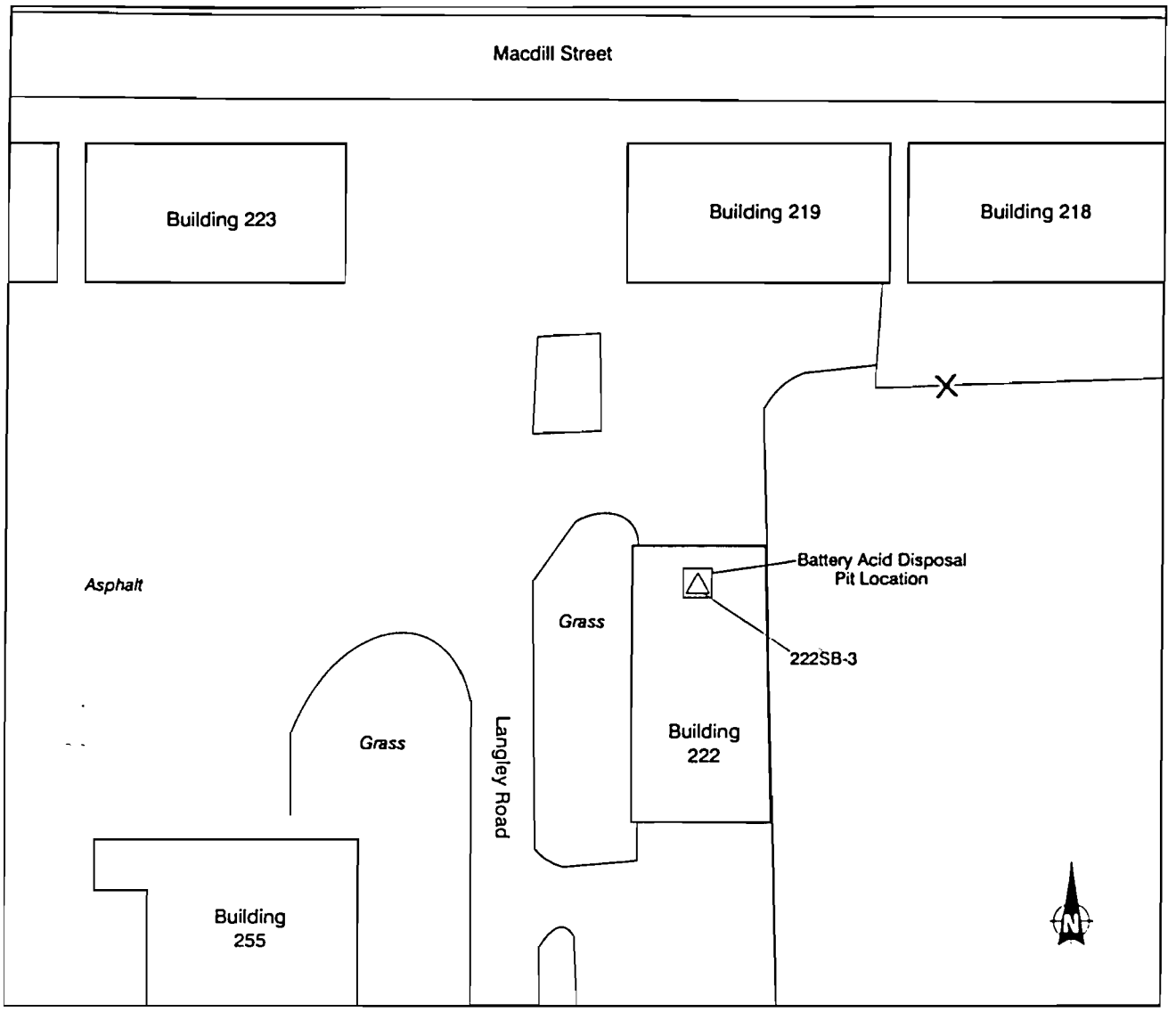


Figure 2: Building 222 AOC

SUMMARY OF SITE ACTIVITIES

Investigations

In 1985, grab samples of residual surface sludge were taken by the Air Force. Elevated concentrations of metals were detected and the contaminated soil was removed. In a later investigation of the BADP, soil borings were installed through the pit to a depth of 12 feet. The material encountered during boring installation consisted of battery sludge of a "greenish-gray sandy texture" to a depth of 10 feet. Natural soil was encountered from 10 to 12 feet. Samples results indicated the presence of lead, copper, zinc, and antimony at elevated concentrations; however, the levels dropped abruptly below 2 feet and tended to decrease with depth. The contaminated soils were removed and the pit was covered with concrete in 1985.

In 1994, an RI was performed. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any remedial action was necessary to prevent potential threats to human health and the environment. The RI included the drilling of one deep soil boring and the sampling and analysis of six soil samples collected from the soil boring at 2-foot intervals from the ground surface to boring completion (18 feet BGS); and one grab groundwater sample.

Analysis of the grab groundwater samples indicated the presence of one ***volatile organic compound***, five ***semivolatile organic compounds***, and 20 metals. Cyanide was also detected in the groundwater at Building 222 but did not exceed potential groundwater ARARs or twice the detected background concentration. The sample was also analyzed for ***PCBs*** and none were detected. The concentrations of 12 metals exceeded potential ARARs in the grab groundwater sample (see Table 1).

Analysis of the soil samples collected during the RI indicated the presence of one VOC, 20 SVOCs, six pesticides, and 10 metals. The concentrations of three SVOCs, two pesticides/PCBs, and 13 metals exceeded potential TBCs or background screening concentrations (see Table 2).

Volatile Organic Compounds (VOCs)
a group of organic compounds that have a tendency to vaporize readily.

Semivolatile Organic Compounds (SVOCs)
a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

PCBs
(polychlorinated biphenyls) a group of synthetic organic chemicals with varying harmful effects. Humans come in contact with PCBs by breathing air, ingesting soil or water, and through dermal contact with soil or water containing PCBs.

Table 1
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 222 AOC
GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Metals (mg/L)			
Aluminum	162	1/1	0.05 [a]
Arsenic	0.07	1/1	0.025 [b]
Beryllium	0.008	1/1	0.003 [c]
Cadmium	0.052	1/1	0.005 [b]
Chromium	0.28	1/1	0.05 [b]
Copper	0.9	1/1	0.2 [b]
Iron	420	1/1	0.3 [b]
Lead	0.096	1/1	0.015 [d]
Manganese	24.9	1/1	0.05 [a]
Nickel	0.58	1/1	0.1 [b]
Sodium	56.3	1/1	20 [b]
Zinc	4.1	1/1	2 [c]

[a] Federal secondary maximum contaminat level
[b] NYSDEC Class GA groundwater standard; June 1998
[c] NYSDEC Class GA groundwater guidances; June 1999
[d] Federal primary maximum contaminat level

Key:
J = Estimated concentration
ND = Non detect

Table 2
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 222 AOC
SUBSURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)pyrene	700 J	1/6	61 [a]
Benzoic acid	31,000	1/6	2,700 [a]
Chrysene	120 J - 1,500 J	1/6	400 [a]
Pesticides/PCBs (µg/kg)			
Dieldrin	320 J	1/6	44 [a]
Heptachlor epoxide	120 J	1/6	20 [a]
Metals (mg/kg)			
Antimony	3.5 - 1,460	2/6	3.4 [b]
Arsenic	2.9 21 J	4/6	4.9 [b]
Cadmium	2.5 - 3	2/6	1.1 [b]
Total chromium	11.1 - 40.7	3/6	22.6 [b]
Copper	44.6 J - 152 J	6/6	43 [b]
Lead	21.4 - 11,500	5/6	36 [b]
Mercury	0.11 J - 1.7 J	4/6	0.1 [a]
Zinc	50.6 J - 446 J	2/6	120 [b]

[a] NYS-recommended soil cleanup objective

[b] Background screening concentration

Key:

J = Estimated concentration*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the Building 222 AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils, soil gas, sediments, surface water, and groundwater at the site. The results of this assessment and the interim remedial action (see page 10) were considered when formulating this no further action proposal for soils with land use restrictions.

Human Health Risk Assessment

Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Building 222 AOC could pose health risks to individuals under current and proposed future land use. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification—identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment—estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment—determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization—summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soils, and groundwater at the site were considered chemicals of potential concern with the exception of inorganics detected at concentrations less than twice the mean background

SUMMARY OF SITE RISKS (Cont.)

concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). As a class, petroleum hydrocarbons were not included as a chemical of concern; however, the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated.

The current land use designation for the Building 222 AOC is industrial. In accordance with the Griffiss Redevelopment Planning Council redevelopment scenario, the future land use designation is commercial/ administrative. The human health risk assessment evaluated exposure to potential current and future occupational workers (current and future utility, construction, and industrial workers that may be exposed to chemicals detected in the site media). The various exposure scenarios for each population are described in Table 3. Intake assumptions, which are based on EPA guidance, are more fully described in the RI.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Building 222 AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. Once either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as the point of departure for determining remediation goals for alternatives.

Table 3
BUILDING 222 AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

UTILITY AND CONSTRUCTION WORKERS	INDUSTRIAL WORKER
• Incidental ingestion of subsurface soil	• Ingestion of groundwater
• Inhalation of fugitive dust from subsurface soil	• Dermal contact with groundwater
• Dermal contact with subsurface soil	• Inhalation of VOCs from groundwater

Results of Site-Specific Health Risk Assessment

Potential risks from exposure to COPCs at the Building 222 AOC were evaluated for utility, construction, and industrial workers during the RI, prior to the interim remedial action. The potential carcinogenic and noncarcinogenic risks from exposure to subsurface soil and groundwater are summarized below.

Carcinogenic Risk

The total carcinogenic risk associated with exposure by utility workers to subsurface soil is 4×10^{-6}, which is within the EPA's target risk range. The pathway specific risks for utility workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were 2×10^{-6}, 2×10^{-9}, and 2×10^{-6}, respectively.

The total carcinogenic risk associated with exposure by construction workers to subsurface soil was 3×10^{-6}, which is within the EPA's target risk range. The pathway specific risks for construction workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were 3×10^{-6}, 5×10^{-10}, and 4×10^{-7}, respectively.

The total carcinogenic risk associated with exposure by industrial workers to contaminants in groundwater was 3×10^{-6}, which is within the EPA's target risk range. The pathway specific risks for industrial workers from incidental ingestion, inhalation of volatiles released from groundwater, and dermal exposure to groundwater were 3×10^{-6}, 2×10^{-9}, and 2×10^{-8}, respectively.

Noncarcinogenic Risk

The total HI for potential utility workers exposed to subsurface soil was 0.6. This cumulative HI is below the acceptable level of 1.

The total HI calculated for potential construction workers exposed to subsurface soil was 20. The calculated HIs for incidental ingestion, dermal contact and inhalation of fugitive dust were 20, 0.06, and 0.001 respectively. Antimony was the greatest risk contributor via the incidental ingestion of soil pathway with a hazard quotient of 17.

The cumulative HI for potential industrial workers exposed to grab ground water was 0.02. This HI is below the acceptable level of 1.

Toxicity values were not available for several contaminants, including 2-ethylnaphthalene, acenaphthylene, benzo(g,h,i)peryline, phenanthrene, and lead, and, therefore, the risk arising from exposure to these compounds was assessed qualitatively. The concentrations of 2-methylnaphthalene, acenaphthylene, benzo(g,h,i)peryline, phenanthrene are all below the most stringent criteria. Lead was detected at concentrations above the most stringent criterion and is classified as a B2 carcinogen (probable human carcinogen). Possible exposures to the site concentrations of these compounds are unlikely to pose a health hazard for occupational receptors potentially performing intrusive activities at this site with the exception of lead. Continuous exposure to lead is expected to cause adverse health effects.

The results of the human health baseline risk assessment indicated that there was a potentially unacceptable risk to occupational receptors from exposure to lead in soils at the Building 222 AOC and a potentially unacceptable risk to the construction work via ingestion of soil. Quantitative evaluation of risk is subject to several conservative assumptions and should not be considered an absolute measure of risk.

Groundwater at the Building 222 AOC is being further evaluated under the On Base Groundwater AOC as part of the Tin City operable unit.

Uncertainties

Uncertainties exists in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and health-protective assumptions throughout the entire risk assessment, results in an assessment that is protective of human health and the environment. Uncertainties associated with the risk assessment for the Building 112 AOC include (1) The HIs associated with dermal contact with soil were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (2) Chemical samples were collected from areas of known contamination which can result in a biased data set that may overestimate risk; (3) Construction at the site was assumed to occur over a one year period. Since construction may

take less time to complete, this would result in an overestimation of risk; (4) Toxicological criteria were not available for all chemicals found at the site, which may result in an underestimation of risk; (5) Construction at the site was assumed to occur over a one year period. Since construction may take less time to complete this would result in an overestimation of risk; and (6) It was assumed that groundwater would be used for industrial purposes in the future, however, this is unlikely since the site has ready access to the existing water supplies at the former base and in the City of Rome. This would result in an overestimation of risk.

Ecological Risk Assessment

A baseline risk assessment for ecological receptors at the Building 222 AOC was conducted during the RI. The assessment modeled risks to raccoons and short-tailed shrews to exposures to surface soil in the event that a proposed future land use is open space. The HQs indicative of risks to the raccoon and the short-tailed shrew were calculated to be below 1; therefore, the potential for adverse effects to this terrestrial ecological receptor is considered to be insignificant.

Modeling of bioaccumulation to higher order species was not performed, nor was the cumulative effect of multiple contaminants considered; this tends to underestimate the risk to ecological receptors.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

INTERIM REMEDIAL ACTION

In 1998, following the RI and baseline risk assessment, an interim remedial action was performed in which the additional contaminated soils that remained in the subsurface soils beneath the north central portion of the floor were removed (see Figure 3). The work consisted primarily of saw cutting and removal of concrete, excavation of contaminated subsurface soils, confirmation sampling, transportation and off-site disposal of excavated materials, backfilling and concrete restoration. A brief summary of this remedial action is provided below.

Remedial action work activities began on July 27, 1998. Equipment was mobilized, work zones were established, and the floor was saw cut. The concrete was removed and the BADP was excavated and stockpiled on a bermed liner. Confirmatory samples were collected from all four walls and the base of excavation. Confirmatory sample results indicated that the base sample and east sidewall of the excavation exceeded cleanup goals. On August 13, 1998 an additional foot of material was over-excavated from the base of the excavation and east sidewall.

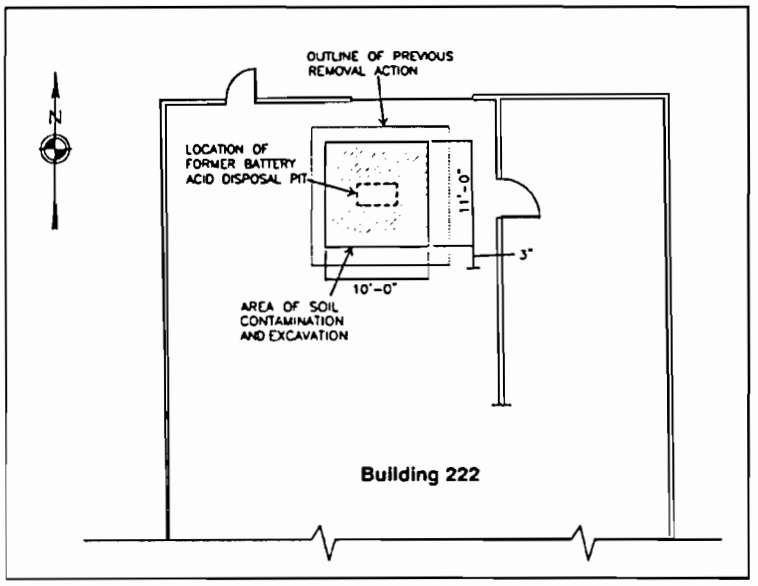


Figure 3: Building 222 AOC Interim Remedial Action

This material was added to the original stockpile. Confirmatory samples were collected from the base and east sidewall after the over-excavation was complete. Based on confirmatory sample results, an additional 1 foot of material was excavated from the base of the excavation on September 3, 1998 and added to the original stockpile. An additional confirmatory sample was collected from the base of the excavation. The total estimated volume excavated, stockpiled, and disposed from the Building 222 AOC was 45.8 cubic yards of soil.

Confirmatory samples were taken after the removal action was completed to verify the effectiveness of this interim remedial action. The results of the confirmatory soil samples were compared to the project cleanup goals and NYSDEC TAGM 4046 guidance values. The confirmatory sample results were acceptable and the project goals were met. After the project goals were met, the excavated area was backfilled with clean material and the concrete floor slab replaced.

On October 16, 1998, the stockpiled material was loaded for transport to Seneca Meadows for disposal.

DESCRIPTION OF THE PREFERRED ALTERNATIVE

No further action for soils with land use restrictions for industrial/commercial use with five-year reviews to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use is proposed for the Building 222 AOC. The transfer documents will contain the following restrictions to ensure that the reuse of the site is consistent with the risk assessment:

- The property will be industrial/commercial use unless permission is obtained from the EPA, NYSDEC, and the New York State Department of Health; and
- The owner or occupant of the property shall not extract, utilize, consume, or permit to be extracted any water from the aquifer below the ground surface within the boundary of the property unless such owner or occupant obtains prior written approval from the New York State Department of Health.

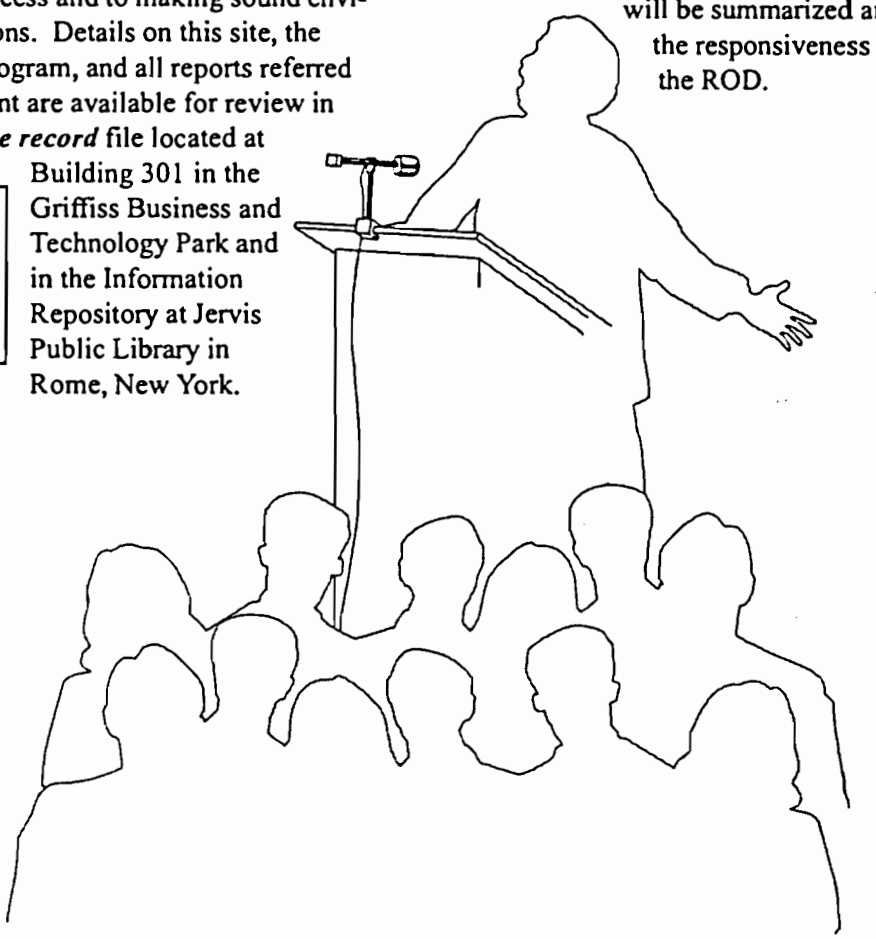
Following the interim remedial action, the majority of the chemicals detected at this AOC do not exceed standards and guidance values and the known source of the groundwater contamination has been removed. In addition, the baseline risk assessment for industrial/commercial use indicates that the levels of contamination present in the soils prior to remediation fell within or below EPA's acceptable carcinogenic risk range and posed a potential noncarcinogenic risk to occupational workers, which was negated by the interim removal action. Therefore, the concentrations of chemicals in the soil following the remedial action and the baseline risk assessment demonstrate that the site contaminants pose no current or potential threat to public health or the environment. Groundwater at the Building 222 AOC is being further evaluated as part of the On Base Groundwater AOC Tin City operable unit.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take no further action for soils with land use restrictions at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' remedial action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the preferred alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 14 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by XXXX X, 2001.

Public Comment Period

The agencies have set a public comment period from XXXX X, 2001, to XXXX X, 2001, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for X:XX pm, XXXXXX, XXXX X, 2001, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Building 222

Problem Identification/ Records Search: 1981

|

Problem Confirmation and Quantification: 1982

|

Field Investigation: 1985

|

Griffiss AFB added to National Priorities List: 1987

|

Health Assessment: 1988

|

EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

|

Griffiss designated for realignment by BRAC: 1993 and 1995

|

ATSDR Health Assessment: 1995 Addendum: 1996

|

Remedial Investigation Report Draft-Final: December 1996

|

Closure Certification Report Draft: February 2000

|

No Further Action for Soils with Land Use Restrictions Proposed Plan Draft-Final: December 2000

|

No Further Action for Soils with Land Use Restrictions Proposed Plan Final: XXXX 2001

|

Public Comment Period: XXXX X, 2001 - XXXX X, 2001

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency, Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

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Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Building 222 AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Building 222 AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Building 222
AOC at the former
Griffiss AFB,
and to solicit
your comments.

Proposed Plan

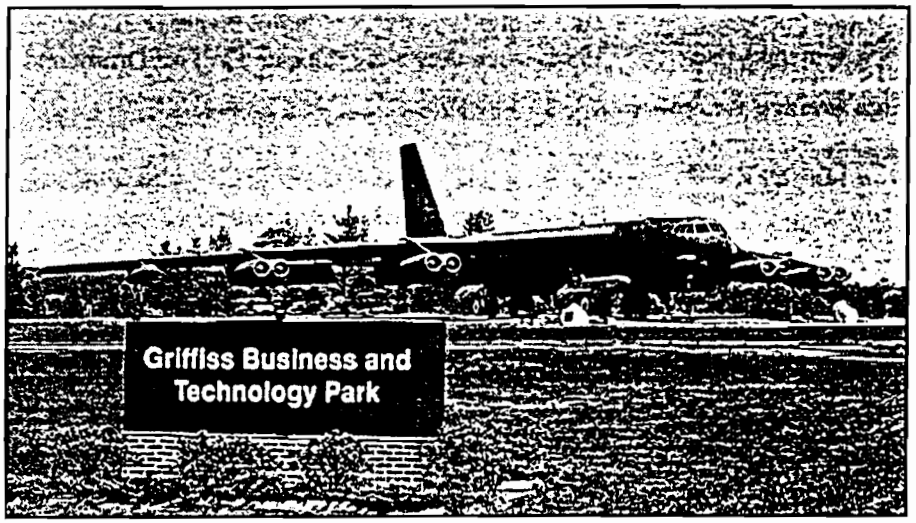
BUILDING 255 DRYWELLS AOC

Former Griffiss Air Force Base
Rome, New York
Public Comment Period
XXXXX X, 2001 - XXXXX X, 2001

December 2000

Air Force Recommends No Further Action for Soils with Land Use Restrictions at Building 255 Drywells Area of Concern

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This *proposed plan* is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). The Air Force recommends no further action for soils with land use restrictions for industrial/commercial use at the Building 255 *Area of Concern*. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. Groundwater at the Building 255 AOC is being further evaluated as part of the On Base Groundwater AOC Tin City operable unit.

The document has been prepared in accordance with public participation requirements of the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, the National Contingency Plan*, and the former Griffiss Air Force Base (AFB) *Federal Facility Agreement*. In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies."

This plan is intended to elicit public comments on the proposal to take no further action for soils with land use restrictions at the site. The final decision or *Record of Decision* will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Building 255 Drywells AOC.
- The proposed plan to take no further action for soils with land use restrictions at Building 255 Drywells AOC.
- How you can participate in the final decision process for Building 255 Drywells AOC.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone.***

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priority List.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world. On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of ***Areas of Concern*** on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a baseline risk assessment; a community relations plan; an RI report; and a work plan and the report for a supplemental investigation. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The draft Closure Certification Report for Interim Remedial Action was delivered on May 24, 2000.

This proposed plan for no further action for soils with land use restrictions is based on an evaluation of potential threats to human health and the environment due to contamination in the soil and groundwater, and the performance of interim remedial actions at the Building 255 Drywells AOC.

During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

BUILDING 255 DRYWELLS AREA OF CONCERN

Building 255, the Vehicle Maintenance Building, is located in the west-central portion of the base (see Figure 1). Several drywells suspected in the area of Building 255, including Buildings 215/216, 222, 223, and the former location of Building 230, are included in this proposed plan.

Two drywells, which were reportedly located near the building, are stone- and gravel-filled pits measuring approximately 3 feet square by 10 feet deep. The exact location of these two drywells is not known; however, they are potentially located in an area on the east side of the building in the grassed area across Langley Road (see Figure 2). A third drywell was located during a site reconnaissance on the west side of Building 255, beneath a manhole cover in the paved parking lot. The drywells reportedly received liquid wastes from the Vehicle Maintenance Shop and possibly a small glass repair shop located within Building 255. Wastes reportedly disposed in these two drywells consisted of lube oil, engine cleaning compounds, caustics, acids, and paint. The quantity of wastes disposed in these drywells was estimated at less than 5 gallons per day. Pesticide rinse water, solvents and other waste liquids generated in small quantities by activities in Buildings 215/216, 222, 223, 230 and 255 may also have been disposed in the drywells. Use of these drywells was discontinued in the early 1970s.

Another drywell is suspected on the south side of Building 223. Fuel residuals from a petroleum, oil and lubricants (POL) laboratory that operated from 1974 to 1984 may be present in the drywell.

The suspected locations of drywells at Building 222, former Building 230, and Building 215/216 were based on a Griffiss AFB drawing titled "Replace Metal Siding - Tin City" dated June 29, 1987.

The Building 255 Drywells AOC is located on relatively flat lying terrain with less than 1 foot of relief. Building 255 is not located near major natural surface water drainage features. Run-off from the site is channeled into the base drain storm system, which discharges to the Mohawk River. Groundwater has been encountered at depths ranging from 13.5 feet below ground surface (BGS) to 21 feet BGS. Groundwater flows to the south-southeast across the site.

Site soils consist of brown, silty fine to coarse sand and gravel to a depth of 19 feet BGS.

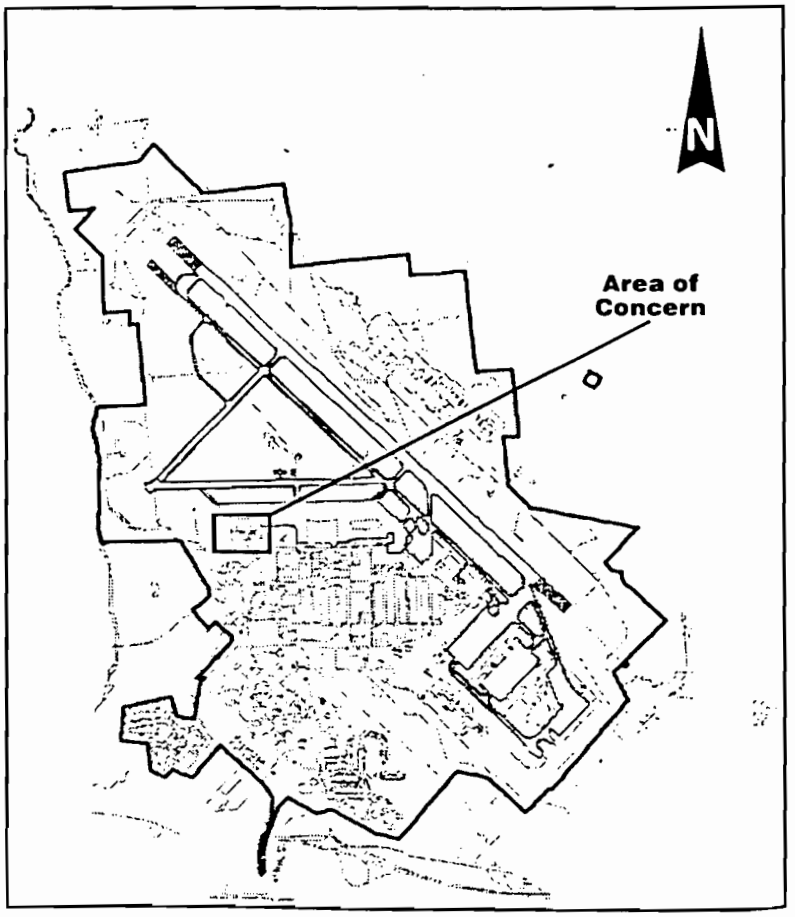
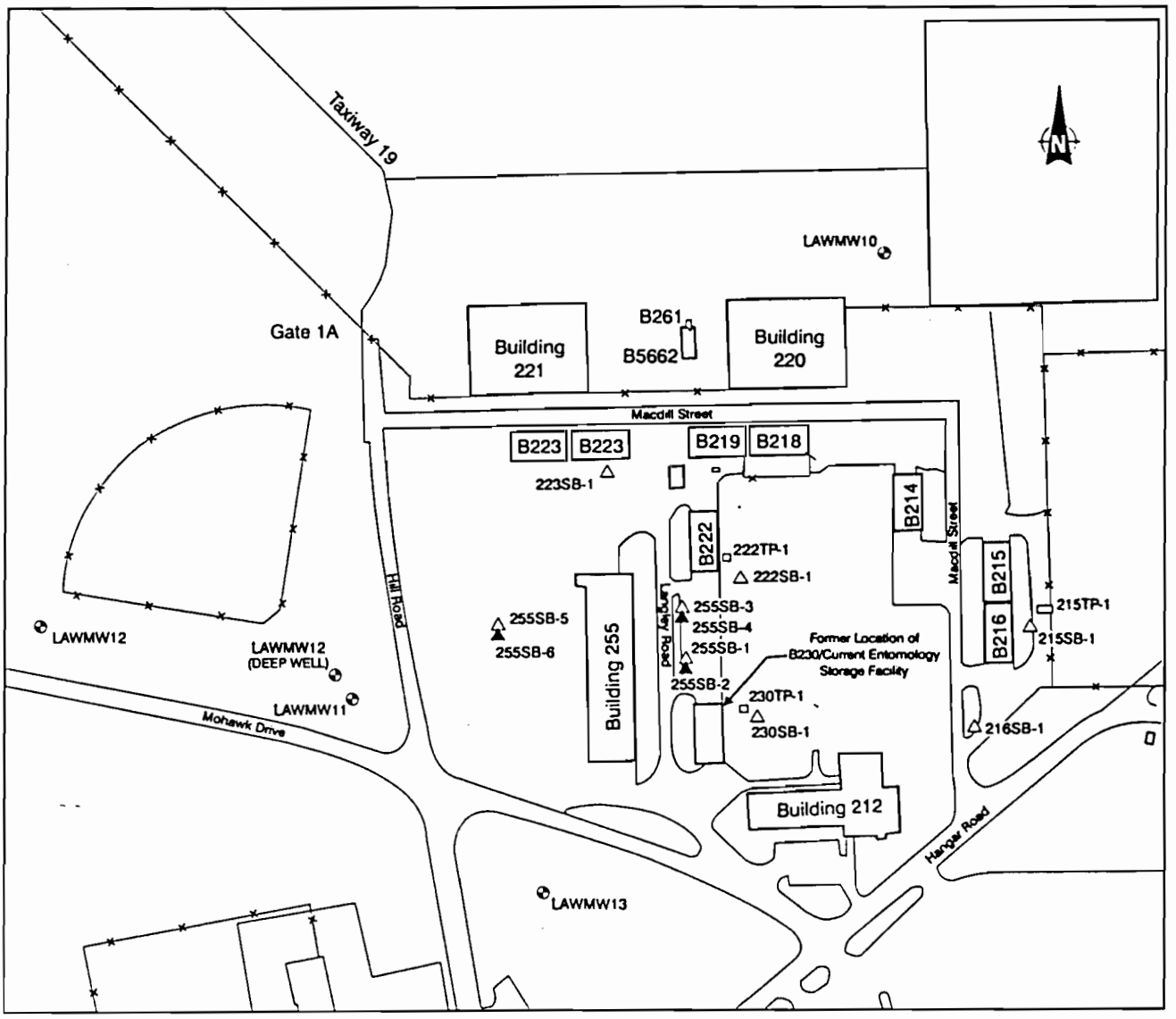


Figure 1: Building 255 AOC is located in the west-central portion of the former Griffiss AFB.



SCALE IN FEET

0 400 800

LEGEND

- Monitoring Well
- Test Pit Location
- Soil Boring/Grab Groundwater Sampling Location (In the Assumed Drywell Location)
- Chain Link Fence
- Soil Boring (Adjacent to the Assumed Drywell Location)

Figure 2: Building 255 AOC

SUMMARY OF SITE ACTIVITIES

Investigations

In 1994, an RI was performed. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any further remedial action was necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions. The RI included a visual survey, a ground-penetrating radar (GPR) survey, and the excavation of three test pits to try to locate the drywells; sampling and analysis of soil and grab groundwater; and installation of eight temporary monitoring wells. Observations from the visual survey included:

Building 255: Two features were noted east of Building 255 that may have been drywells associated with the storm water system. These features consisted of two corrugated metal pipes covered by steel grating and filled with gravel. No pipes were visible leading into these structures. No drywell was visibly evident in the parking lot west of Building 255. A storm drain, covered by a manhole and filled with dirt to 4 feet BGS, was assumed to be a drywell associated with Building 255.

Building 222: No drywell was evident in the vicinity of this building.

Building 223: The area at the suspected drywell location, south of Building 223, was reported by Griffiss AFB personnel to have been frequently excavated to at least 8 feet BGS for optical cable installation and repair. No drywell was reportedly encountered during this construction. The drywell at this location may have been unknowingly excavated or otherwise disturbed during construction activities.

Former Building 230: The area at the suspected drywell location east of the former location of Building 230 (now a covered pesticide storage/wash facility) was highly disturbed during construction of the new facility.

Building 215/216: An open surface-water drainage swale directs flow to a corrugated pipe where drainage is diverted beneath the driveway southwest of Building 216. It is uncertain whether this is a drywell; however, this feature is at the location reported to be a drywell. No drywell was evident east of Building 215/216.

Volatile Organic Compounds (VOCs)
a group of organic compounds that have a tendency to vaporize readily.

Semivolatile Organic Compounds (SVOCs)
a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

PCBs
(polychlorinated biphenyls) a group of synthetic organic chemicals with varying harmful effects. Humans come in contact with PCBs by breathing air, ingesting soil or water, and through dermal contact with soil or water containing PCBs.

There were no anomalies detected during the GPR survey, which was conducted in 1993 at the suspected Building 255 drywell. In 1994, test pits were excavated at Building 222, Building 230, and Building 215/216 in an attempt to confirm the location of the reported drywells. Drywells were not located by any of the test pit activities and all test pits were backfilled.

Eight temporary monitoring wells were installed in August 1994 to collect grab groundwater samples. Six additional temporary wells were installed in April 1995 to collect additional grab groundwater samples. A total of 10 samples were collected. Analysis of the grab groundwater samples indicated the presence of 22 ***volatile organic compounds***, 20 ***semivolatile organic compounds***, 34 pesticides, two ***PCBs***, 26 metals, total glycols, cyanide, and petroleum hydrocarbons. The concentrations of 12 VOCs, 6 SVOCs, two pesticides, one PCB, 18 metals, and petroleum hydrocarbons exceeded the most stringent criteria for groundwater (see Table 1).

Eleven soil borings were drilled in the vicinity of the reported drywell locations. Six borings were associated with known drywell locations and five borings were located downgradient of presumed drywell locations. A total of 63 soil samples were collected. Analysis of the subsurface soil samples indicated the presence of 12 VOCs, 30 SVOCs, 23 pesticides, two PCBs, and 26 metals, as well as cyanide and petroleum hydrocarbons. The concentrations of six VOCs, nine SVOCs, one pesticide, one PCB, and 17 metals exceeded the most stringent criteria for subsurface soils (see Table 2). The high concentrations shown in Table 2 were all measured in one borehole (255SB-5) at a depth greater than 4 feet. This borehole is located near the drywell in the parking lot to the west of Building 255. This soil was removed during the interim remedial action (see page 11).

Table 1
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 255 DRYWELLS
GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Volatiles (µg/L)			
1,2-Dichloroethane	0.8 - 4	2/8	0.4 [a]
1,3,5-Trimethylbenzene	190 D	1/8	5
Benzene	0.2 J - 3	1/8	1 [a]
Ethylbenzene	26	1/8	5 [a]
Isopropylbenzene	15	1/8	5 [a]
m,p-Xylene	160 D	1/8	5 [a]
Naphthalene	83 D	1/8	10 [b]
o-Xylene	87 D	1/8	5 [a]
SEC-butylbenzene	13	1/8	5 [a]
Toluene	0.1 J - 780 D	1/8	5 [a]
Tricholoethylene	0.1 J - 7.7	3/8	3
cis-1,2-Dichlorethylene	96 D	1/8	5 [a]
SVOCs (µg/L)			
Benzo(a)anthracene	0.06 J - 0.9 J	4/9	0.002 [b]
Benzo(a)pyrene	0.06 J - 0.9 J	4/9	0.002 [b]
Benzo(b)fluoranthene	0.1 J - 1 J	4/9	0.002 [b]
Benzo(k)fluoranthene	0.2 JU - 0.3 J	3/8	0.002 [b]
Chrysene	0.06 J - 1 J	4/9	0.002 [b]
Indeno(1,2,3-cd)pyrene	0.5 J	1/8	0.002 [b]
Pesticides/PCBs (µg/L)			
Aldrin	0.001 J - 0.004 J	1/9	0.002 [c]
Dieldrin	0.001 J - 0.013 J	1/8	0.004 [a]
PCB-1260 (Aroclor 1260)	0.6 J	1/8	0.1 [a]
Metals (mg/L)			
Aluminum	5.22 - 1,420	8/8	0.05 [d]
Antimony	0.0115	1/7	0.003 [a]
Arsenic	0.0041 J - 0.19	5/8	0.025 [a]
Barium	0.039 - 8.19	1/8	1 [a]
Beryllium	0.00173 J - 0.0592	5/8	0.003 [b]
Cadmium	0.058 J - 0.149	2/8	0.005 [a]
Chromium	0.0133 J - 4.87	5/8	0.05 [a]
Copper	0.055 - 9.43	6/8	0.2 [a]
Iron	147 - 3,940	4/8	0.3 [a]
Lead	0.0196 - 4.68	8/8	0.015 [c]
Manganese	0.693 - 293	8/8	0.05 [d]
Mercury	0.00005 J - 0.00351 J	1/8	0.0007 [a]
Nickel	0.0186 J - 2.48	4/8	0.1 [a]
Selenium	0.00083 J - 0.155	4/8	0.01 [a]
Silver	0.0062 J - 0.161 J	2/8	0.05 [a]
Thallium	0.0044 J - 0.0054	2/8	0.0005 [b]
Zinc	0.095 - 15.1	6/8	2 [a]
Wet Chemistry			
Petroleum Hydrocarbons	0.11J -28	8/8	0.1[a]

[a] NYSDEC Class GA groundwater standard; June 1998

[b] NYSDEC Class GA groundwater guidances; June 1999

[c] RCRA corrective action levels

[d] Federal secondary maximum contaminat level

[e] Federal primary maximum contaminat level

Key:

D = Indicates compounds identified in an analysis from a diluted sample

J = Estimated concentration*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

Table 2
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 255 DRYWELLS
SUBSURFACE SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
VOCs (µg/kg)			
Acetone	2 J - 71,000	2/63	200 [a]
Ethylbenzene	1 J - 46,000	2/63	5,500 [a]
Methylene Chloride	2 J - 2,100 J	1/63	100 [a]
Toluene	1 J - 550,000	5/63	1,500 [a]
Trichloroethylene (TCE)	5 J - 13,000	1/63	700 [a]
Xylenes	1 J - 550,000	5/63	1,200 [a]
SVOCs (µg/kg)			
1,2-Dichlorobenzene	19,000 J - 29,000 J	2/63	7,900 [a]
Benzo(a)anthracene	37 J - 1,500 J	8/63	224 [a]
Benzo(a)pyrene	67 J - 1,900	21/63	61 [a]
Benzo(b)fluoranthene	130 J - 2,300 J	3/63	1,100 [a]
Bis(2-ethylhexyl)phthalate	48 J - 140,000 J	2/63	50,000 [a]
Chrysene	40 J - 6,900 J	6/63	400 [a]
Di-n-butyl phthalate	37 J - 16,000 J	2/63	8,100 [a]
Dibenzo(a,h)anthracene	430	1/63	14 [a]
Naphthalene	47 J - 520,000	2/63	13,000 [a]
Pesticides/PCBs (µg/kg)			
Endrin	0.41 J - 109	1/64	100 [a]
PCB-1260 (Aroclor 1260)	17.4 J - 2,380	4/64	90 [b]
Metals (mg/kg)			
Antimony	1.8 J -155	3/63	3.4 [c]
Arsenic	2.1 J - 49	35/63	4.9 [c]
Barium	11.2 J - 1,420	3/63	300 [a]
Beryllium	0.076 J - 0.66	1/63	0.65 [c]
Cadmium	0.22 J - 96.7	6/63	1.1 [c]
Calcium	579 - 76,700	5/63	23,800 [c]
Total chromium	5.1 J - 1,690	9/63	22.6 [c]
Cobalt	3.5 J - 30.6	1/63	30 [a]
Copper	13 - 4,900	11/63	43 [c]
Lead	1.8 - 20,000	16/63	36.2 [c]
Magnesium	1,610 J - 8,540 J	2/63	7,180 [c]
Manganese	160 - 2,210	2/63	2,110 [c]
Mercury	0.014 J - 1.77	5/63	0.1 [a]
Nickel	5.98 J - 72.2	4/63	46.1 [c]
Silver	0.36 J - 13.6	13/63	1.1 [c]
Sodium	24 J - 443	1/63	259 [c]
Zinc	23 - 6,730	7/63	120 [c]

An RI supplemental investigation was performed in 1997 in the Tin City area, which includes Building 255. This investigation included the installation and sampling of two new wells at Bulding 255. Low levels of chloroform and trichloroethylene were detected in one of the wells, but the concentrations did not exceed the NYSDEC groundwater guidance values.

[a] NYS-recommended soil cleanup objectives

[b] Proposed RCRA corrective action levels

[c] Backgroung screening concentration

Key:

J = Estimated concentration

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the Building 255 Drywells AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils and groundwater at the site. The results of this assessment and the interim remedial action (see page 11) were considered when formulating the no further action for soils with land use restrictions proposal.

Human Health Risk Assessment

Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Building 255 Drywells AOC could pose health risks to individuals under current and proposed future land use. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification—identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment—estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment—determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization—summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soils, soil gas, sediments, surface water, and groundwater at the site were considered chemicals of potential concern with the exception of inorganics detected at concentrations less than twice the mean background concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). As a class, petroleum hydrocarbons were not included as a chemical of concern; however, the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated.

The Building 255 Drywells AOC is currently designated for industrial use. Future land use of this AOC is assumed to be commercial/industrial. For the purposes of this risk assessment, however, the risk to utility, construction, and industrial workers was assessed. The various exposure scenarios for each population are described in Table 3.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Building 255 Drywells AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

Table 3
BUILDING 255 DRYWELLS AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

UTILITY AND CONSTRUCTION WORKERS	INDUSTRIAL WORKER
• Inhalation of airborne chemicals • Inhalation of fugitive dust from soils • Incidental ingestion of soil • Dermal contact with soil	• Ingestion of groundwater • Dermal contact with groundwater (during showering) • Inhalation of VOCs from groundwater (during showering)

SUMMARY OF SITE RISKS (Cont.)

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. Once either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as the point of departure for determining remediation goals for alternatives.

Results of Site-Specific Health Risk Assessment

Potential risks from exposure to COPCs at the Building 255 AOC were evaluated for utility, construction, and industrial workers during the RI, prior to the interim remedial action. The potential carcinogenic and noncarcinogenic risks from exposure to soil and groundwater are summarized below.

Carcinogenic Risk

The total carcinogenic risk associated with exposure by utility workers to subsurface soil is 2 in 1,000,000 (2×10^{-6}), which is within EPA's target risk range.

The total carcinogenic risk associated with exposure by construction workers to soil is 1 in 1,000,000 (1×10^{-6}), which is within EPA's target risk range.

The total carcinogenic risk from exposure to contaminants in grab groundwater by industrial workers is 5 in 10,000 (5×10^{-4}), which is above EPA's target risk range. *PAHs* and PCBs were the major risk contributors via the inhalation and dermal pathways.

PAHs
(polycyclic aromatic hydrocarbons) a group of naturally occurring heavier organic compounds (e.g., pyrene, phenanthrene) that are also produced by combustion and other processes.

The total carcinogenic risk from exposure to contaminants in groundwater by industrial workers is 2 in 100,000 (2×10^{-5}), which is within the EPA's target risk range. Chlordane was the major contributor to this risk.

Noncarcinogenic Risk

The total HI for utility workers exposed to soils is 0.03. The total HI for construction workers exposed to subsurface soils is 0.6. The total HI for industrial workers exposed to constituents in grab groundwater and groundwater well samples is 0.8. All HIs for noncarcinogenic effects are below the benchmark level of 1.

Groundwater at the Building 255 Drywells AOC is being further evaluated under On Base Groundwater AOC as part of the Tin City operable unit.

Uncertainties

Uncertainties exist in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and health-protective assumptions throughout the entire risk assessment process results in an assessment that is protective of human health and the environment. Examples of uncertainties associated with the risk assessment for this AOC include (1) Chemical samples were collected from the suspected source of contamination rather than through random sampling, which may result in a potential overestimation of risk; (2) The HIs associated with dermal contact with soil were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (3) The models used in the RI are likely to overestimate exposure point concentrations in air, which would cause an overestimation of risk for the inhalation pathway; (4) It was assumed that groundwater would be used for industrial purposes in the future, which is unlikely. This would result in an overestimation of risk; and (5) Toxicological criteria were not available for all chemicals found at the site, which may result in an underestimation of risk.

Ecological Risk Assessment

Building 255 is located in a highly developed portion of the base with little habitat available for ecological receptors. However, because the future land use may be open space, potential future exposures to ecological receptors were evaluated and a baseline risk assessment was performed. The assessment modeled risks to the raccoon and short-tailed shrew for exposures to surface soil.

The hazard quotients for both the raccoon and the shrew were less than 1; the potential for adverse impacts to these ecological receptors is considered to be insignificant.

Modeling of bioaccumulation to higher order species was not performed, nor was the cumulative effect of multiple contaminants considered; this tends to underestimate the risk to ecological receptors.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

INTERIM REMEDIAL ACTION

In 1998, an interim remedial action was performed to remove contaminated subsurface soils at the drywell located west of the former site of Building 255. Building 255 was demolished prior to remedial actions at the site. The work consisted primarily of asphalt demolition, removal and disposal of the drywell, soil excavation, confirmation sampling and analysis, transportation and off-site disposal of excavated materials, backfilling and site restoration. A brief summary of this remedial action is provided below.

Remedial action work activities began on July 7, 1998. Equipment was mobilized and work zones were established. The volume of contaminated soil was estimated as an approximately 20 foot square area, centered on the drywell, from a depth of 4 to 14 feet below ground surface (BGS). Excavation of the drywell involved removing the first four feet of clean overburden and stockpiling. All of the remaining material removed from the excavation was assumed contaminated, segregated, and stockpiled on a bermed liner.

Two underground pipes, one that came from the Building 255 floor drain to the parking lot drywell, and one of unknown origin, were cut and removed to the edge of the excavation. The remaining pipes were plugged and grouted closed. Excavation was completed on July 13, 1998. The estimated volume of soil excavated, stockpiled, and disposed was 192.3 cubic yards.

Confirmatory samples were taken after the removal action was completed to verify the effectiveness of this interim remedial action. The results of the confirmatory soil samples were compared to the project cleanup goals and NYSDEC TAGM 4046 and the results were acceptable and the project goals were met. After the project goals were met, the excavated area was backfilled with the estimated 59.3 cubic yards of clean stockpiled soil and additional clean material.

Material from the contaminated soil stockpile was loaded for transport to Seneca Meadows Landfill for disposal on September 14, 15, and 16, 1998.

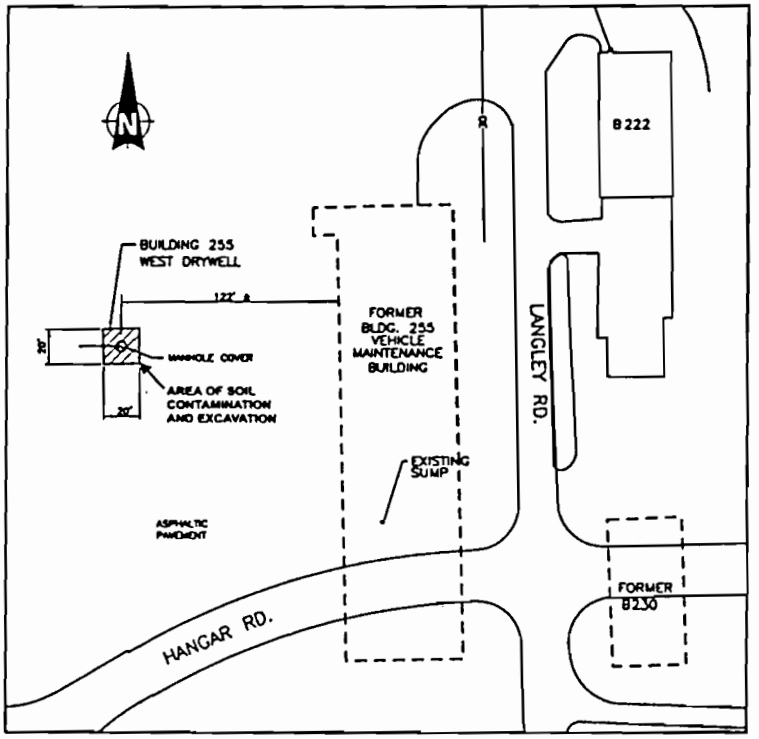


Figure 3: Building Interim Remedial Action

DESCRIPTION OF THE PREFERRED ALTERNATIVE

No further action for soils with land use restrictions for industrial/commercial use is proposed for the Building 255 AOC. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. The transfer documents will contain the following restrictions to ensure that the reuse of the site is consistent with the risk assessment:

- The property will be industrial/commercial use unless permission is obtained from the EPA, NYSDEC, and the New York State Department of Health; and
- The owner or occupant of the property shall not extract, utilize, consume, or permit to be extracted any water from the aquifer below the ground surface within the boundary of the property unless such owner or occupant obtains prior written approval from the New York State Department of Health.

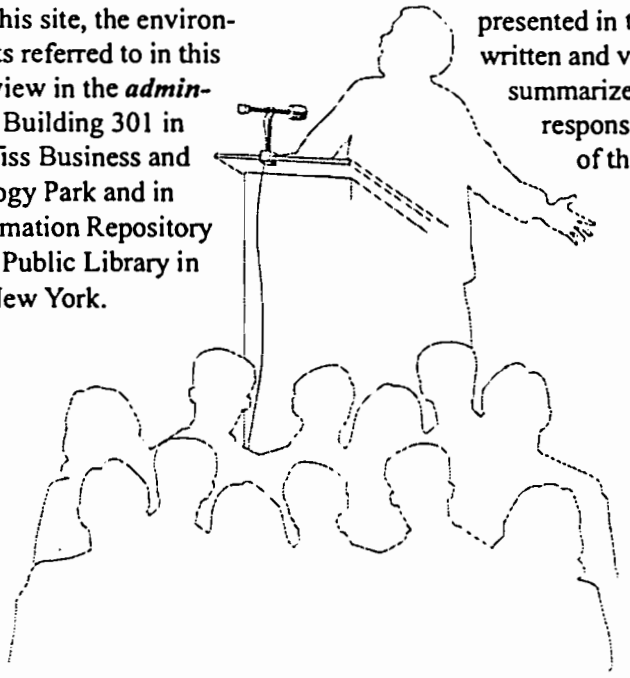
Following the interim remedial action, the majority of the chemicals detected at this AOC do not exceed standards and guidance values and the known source of the groundwater contamination has been removed. In addition, the baseline risk assessment for industrial/commercial use indicates that the levels of contamination present in the soils prior to remediation fell within or below EPA's acceptable carcinogenic risk range and pose no noncarcinogenic risk to the utility, construction, and industrial workers. Therefore, the concentrations of chemicals in the soil following the remedial action and the baseline risk assessment demonstrate that the site contaminants pose no current or potential threat to public health or the environment. Groundwater at the Building 255 AOC is being further evaluated as part of the On Base Groundwater AOC Tin City operable unit.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take no further action for soils with land use restrictions at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' remedial action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the preferred alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 14 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by XXXX X, 2001.

Public Comment Period

The agencies have set a public comment period from XXXX X, 2001, to XXXX X, 2001, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for X:XX pm, XXXXXX, XXXX X, 2001, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Building 255

Problem Identification/ Records Search: 1981

|

Problem Confirmation and Quantification: 1982

|

Field Investigation: 1985

|

Griffiss AFB added to National Priorities List: 1987

|

Health Assessment: 1988

|

EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

|

Griffiss designated for realignment by BRAC: 1993 and 1995

|

ATSDR Health Assessment: 1995 Addendum: 1996

|

Remedial Investigation Report Draft-final: December 1996

|

Supplemental Investigation Report Final: July 1998

|

Closure Certification Report Draft: February 2000

|

No Further Action for Soils with Land Use Restrictions Proposed Plan Draft-Final: December 2000

|

No Further Action for Soils with Land Use Restrictions Proposed Plan Final: XXXX 2000

|

Public Comment Period: XXXX X, 2001 - XXXX X, 2001

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The Air Force is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The New York State Department of Environmental Conservation

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The U.S. Environmental Protection Agency

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

fold here, please use only clear tape to seal

Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Building 255 DRYWELLS AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Building 255 Drywells AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Building 255
Drywells AOC at the
former Griffiss AFB,
and to solicit
your comments.

Proposed Plan

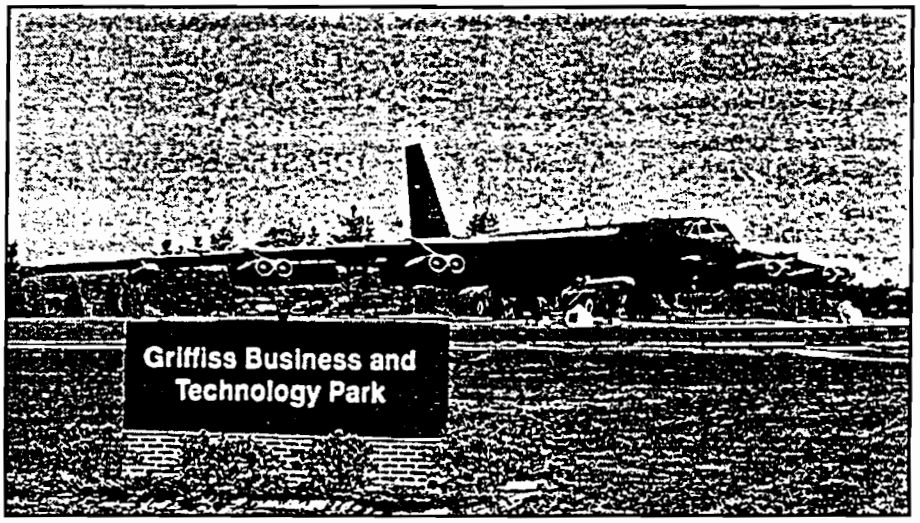
BUILDING 112 AOC

Former Griffiss Air Force Base
Rome, New York
Public Comment Period
XXXXX X, 2001 - XXXXX X, 2001

December 2000

Air Force Recommends No Further Action with Land Use Restrictions at Building 112 Area of Concern

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This *proposed plan* is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). The Air Force recommends no further action with land use restrictions for industrial/commercial use at the Building 112 *Area of Concern*. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use.

The document has been prepared in accordance with public participation requirements of the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, the National Contingency Plan*, and the former Griffiss Air Force Base (AFB) *Federal Facility Agreement*. In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies."

This plan is intended to elicit public comments on the proposal to take no further action with land use restrictions at the site. The final decision or *Record of Decision* will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Building 112 AOC.
- The proposed plan to take no further action with land use restrictions at Building 112 AOC.
- How you can participate in the final decision process for Building 112 AOC.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone.***

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priority List.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world.

On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of AOCs on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a baseline risk assessment; a community relations plan; and an RI report. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The draft Closure Certification Report for Interim Remedial Action was delivered on May 24, 2000.

This proposed plan for no further action with land use restrictions at the Building 112 AOC is based on an evaluation of potential threats to human health and the environment due to contamination in the soil, sediment, and groundwater media and the performance of interim remedial action.

During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs) and sediments. Therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

BUILDING 112 AREA OF CONCERN

Building 112 is the High Power Laboratory located in the central, industrialized area of the former Griffiss AFB (see Figure 1). The following four sites comprise the Building 112 AOC: a drywell, the rooftop transformer spill area, the loading dock area, and the ***PCB*** dump area (see Figure 2).

PCBs
(polychlorinated biphenyls) a group of synthetic organic chemicals with varying harmful effects. Humans come in contact with PCBs by breathing air, ingesting soil or water, and through dermal contact with soil or water containing PCBs.

The drywell was discovered directly adjacent to the east side of Building 112 in 1992 during the construction of a new building entrance. The drywell appeared to be comprised of gravel and is approximately 3 feet by 2 feet in dimension. The depth and use of the drywell is unknown. The area surrounding the drywell is flat and covered by grass.

The Building 112 rooftop transformer area was the location of a transformer rupture and leak. Remedial activities were implemented at this location in 1984.

The loading dock area consists of a paved ramp and surrounding area that leads to the southwest entrance of Building 112. This area was historically used for the storage of PCB containers. The area surrounding the ramp is paved.

The PCB dump area consists of the area between the south wall of Building 112 and beyond a fenced substation south of Building 112. This was an area of reported discharge of PCB fluids in the past. An area on the south side of Building 112 was used until 1994 to store PCB transformers after their removal from service. This location was comprised of a fenced-in gravel area 16 by 44 feet in dimension. Two aboveground storage tanks (ASTs) located adjacent to and east of the transformer storage area, were used to store the PCB insulating oils and are surrounded by a concrete dike.

The topography at the Building 112 AOC is generally flat with less than 5 feet of topographic relief across the site. Groundwater has been encountered at depths ranging from 4 feet to 15 feet BGS and flows south to southwest.

Site soils in the area consist of predominantly brown, silty, fine to coarse sand and gravel.

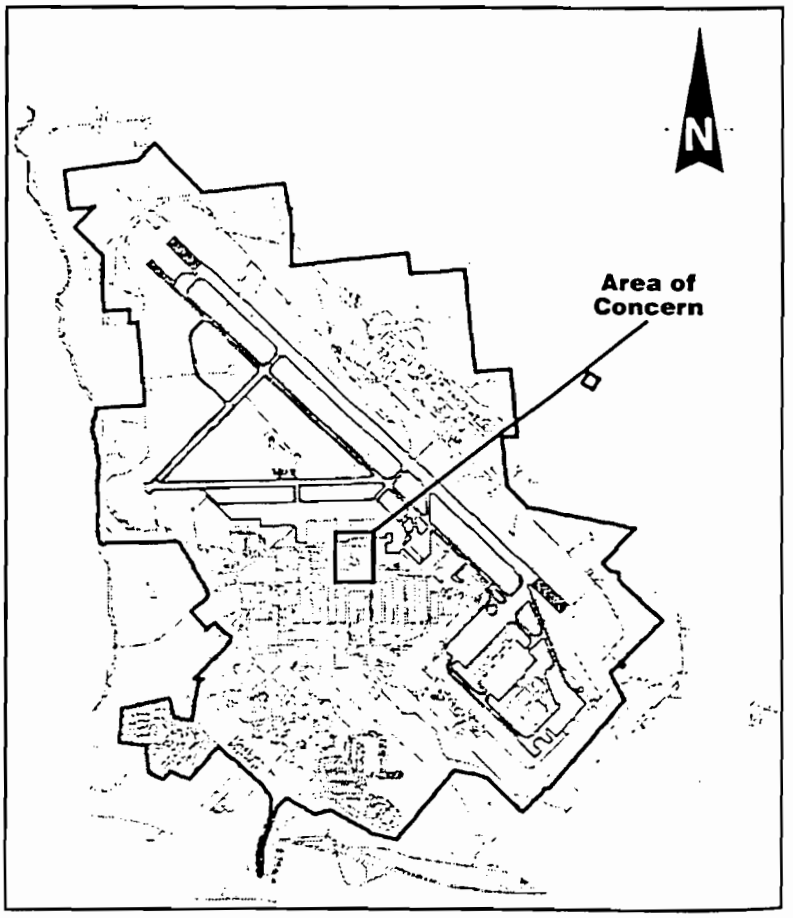


Figure 1: Building 112 AOC is located in the central industrialized portion of the former Griffiss AFB.

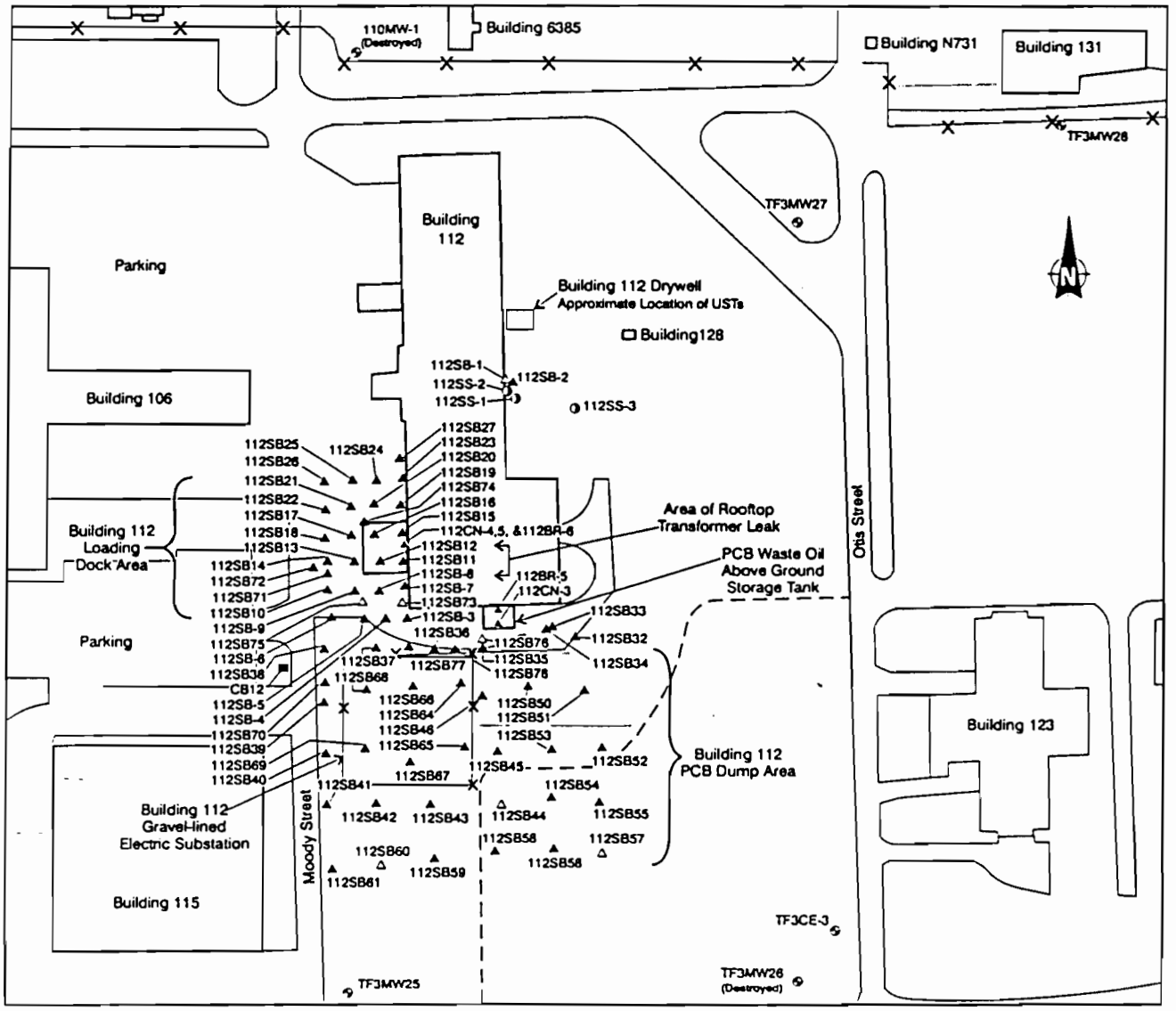


Figure 2: Building 112 AOC

SUMMARY OF SITE ACTIVITIES

In 1994, an RI was performed at the Building 112 AOC. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any remedial action was necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions. RI activities at this AOC included sampling and analysis of soil, groundwater, and sediment at various locations in the four designated areas--drywell, rooftop transformer spill area, loading dock area, and PCB dump area--as described below.

Semivolatile Organic Compounds (SVOCs) a group of organic compounds that are easily extracted from soil, water, etc., using an organic solvent.

Drywell

No previous investigations were performed at the drywell location. RI activities were performed to characterize the drywell and evaluate whether past use of the drywell had resulted in contamination of the environment. Analysis of the surface soil samples at the drywell indicated the presence of 21 ***semivolatile organic compounds***, 11 pesticides/PCBs, and 22 metals. The concentrations of five SVOCs, one pesticide/PCB, and five metals exceeded the most stringent criterion (see Table 1).

Table 1
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 112
SURFACE SOIL SAMPLES (DRYWELL)

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	300 J - 990 J	5/5	224 [a]
Benzo(a)pyrene	240 J - 770 J	5/5	61 [a]
Benzo(b)fluoranthene	290 J - 1,300 J	1/5	1,000 [a]
Chrysene	340 J - 1,100 J	3/5	400 [a]
Dibenzo(a,h)anthracene	42 J - 68 J	3/5	14 [a]
Pesticides/PCBs (µg/kg)			
PCB-1260 (Aroclor 1260)	460	1/3	90 [b]
Metals (mg/kg)			
Cadmium	1.9 - 11.6	3/3	1.1 [c]
Copper	30.7 - 89.9	2/3	43 [c]
Lead	75.8 - 225	3/3	36 [c]
Mercury	0.23 J	1/3	0.1 [a]
Zinc	76.2 - 257	2/3	120 [c]

[a] NYS-recommended soil cleanup objective

[b] Proposed RCRA corrective action levels

[c] Background screening concentration

Key:

J = Estimated concentration.*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

Volatile Organic Compounds (VOCs) a group of organic compounds that have a tendency to vaporize readily.

Analysis of the subsurface soil samples at the drywell indicated the presence of two ***volatile organic compounds***, nine SVOCs, one pesticide/PCB, and 21 metals. The concentrations of two SVOCs, one pesticide/PCB, and four metals exceeded the most stringent criterion (see Table 2).

Loading Dock and PCB Dump Area

Investigations performed in 1981 and 1982 indicated the presence of PCBs in soil surrounding the loading dock area at depths up to 40 inches. The RI expanded upon the previous investigations to evaluate the nature and extent of PCB contamination in this area. No previous investigations had been performed at the PCB dump area prior to the RI.

Table 2
COMPOUNDS EXCEEDING GUIDANCE VALUES
BUILDING 112
SUBSURFACE SOIL SAMPLES (DRYWELL)

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	54 J - 230 J	1/7	224 [a]
Benzo(a)pyrene	170 J	1/7	61 [a]
Pesticides/PCBs (µg/kg)			
PCB-1260 (Aroclor 1260)	7.9 J - 311	1/7	90 [b]
Metals (mg/kg)			
Arsenic	3.1 - 10.2	6/7	4.9 [c]
Lead	3.7 - 139	1/7	36 [c]
Mercury	0.03 J - 0.18	1/7	0.1 [a]
Zinc	45 - 147	1/7	120 [c]

[a] NYS-recommended soil cleanup objective

[b] Proposed RCRA corrective action levels

[c] Background screening concentration

Key:

J = Estimated concentration.*

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

SUMMARY OF SITE ACTIVITIES (Cont.)

Analysis of the subsurface soil samples at the loading dock and PCB dump area indicated the presence of seven pesticides/PCBs and 23 dioxins and furans. The concentrations of two pesticides exceeded the most stringent criterion (see Table 3).

Analysis of the sediment sample at the Building 112 loading dock area storm water catch basin indicated the presence of one PCB. The concentration of that PCB exceeded the most stringent criterion (see Table 4).

Bulk material samples (brick and concrete) collected at the loading dock indicated low-level PCB contamination (less than 1 mg/kg). In the PCB dump area, PCB contamination was detected in two bulk material samples at concentrations of 89 mg/kg (brick sample) and 0.37 mg/kg (concrete sample).

Rooftop Transformer Spill Area

Remedial activities performed in this area in 1984 included replacement of the transformer and the concrete pad on the roof; removal, containerization, and disposal of the concrete pad and roofing material; and excavation and disposal of contaminated soil. The RI focused on confirming whether the previous remediation of PCBs at the site was adequate because no confirmatory samples had been collected in 1984.

Bulk material samples collected from the rooftop included gravel, roofing material, brick from the walls, and concrete from the transformer pad. Wipe samples from two roof drains were also collected. PCBs were detected at low levels (less than 1 mg/kg) in 19 of 34 bulk material samples and exceeded 1 mg/kg at two locations on the transformer pad. PCBs were not detected on the wipe samples.

Table 3
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 112
SUBSURFACE SOIL SAMPLES (LOADING DOCK AND PCB DUMP AREA)

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Pesticides/PCBs (µg/kg)			
PCB-1254 (Aroclor 1254)	5.4 J - 1,640	1/235	90 [a]
PCB-1260 (Aroclor 1260)	7.5 J - 19,400	81/234	90 [a]

[a] Proposed RCRA corrective action levels

Key:
J = Estimated concentration.

Table 4
COMPOUNDS EXCEEDING GUIDANCE VALUES
BUILDING 112
SEDIMENT SAMPLES (STORM WATER CATCH BASIN)

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Pesticides/PCBs (µg/kg)			
PCB-1260 (Aroclor 1260)	42	1/1	0.0008 [a] [*]

[a] NYSDEC, Technical Guidance for Screening Contaminated Sediments; Human Health Bioaccumulation, Fresh water. January, 1999. Expressed as micrograms per gram of organic carbon

[*] Criterion expressed in terms of µg per gram organic carbon

Groundwater

Seven grab groundwater samples were collected from the Building 112 AOC. One sample was collected from the drywell location, two samples were collected from the loading dock area, and four samples were collected from the PCB dump area. Analysis of the grab groundwater samples at the above locations indicated the presence of four SVOCs, 24 pesticides/PCBs, and 21 metals. The concentrations of one pesticide, and 11 metals exceeded the most stringent criterion (see Table 5). With the exception of several metals, the chemicals detected in the surface and subsurface soils were not detected in the groundwater, indicating that the presence of these compounds is limited to the soil at the site.

High Power Laboratory

There is an ongoing project for the characterization, cleanup, and closure of transformer leak sites in the High Power Laboratory area inside Building 112, which was located in the southern portion of the facility under the Resource Conservation and Recovery Act (RCRA). This cleanup consisted of the removal of approximately 530 square feet of PCB-stained concrete flooring from the first floor of the south bay. The draft closure report was forwarded to NYSDEC for concurrence on June 13, 2000, with the recommendation that two additional rounds of groundwater samples be collected and analyzed. The first round was collected on October 27, 2000, and the analysis indicated nondetect for PCBs for all four wells. The collection of the second round of samples is scheduled for January 2001.

Table 5
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 112
GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
Pesticides/PCBs (µg/kg)			
Aldrin	0.002 J - 0.008 J	3/7	ND[a]
Metals (mg/L)			
Aluminum	94.7	1/1	0.05[b]
Barium	2.27	1/1	1[a]
Beryllium	0.0098	1/1	0.003[c]
Chromium	0.139	1/1	0.05[a]
Copper	0.855	1/1	0.2[a]
Iron	289	1/1	0.3[a]
Lead	0.133	1/1	0.015[a]
Magnesium	45.8	1/1	35[d]
Manganese	48.7	1/1	0.05[b]
Nickel	0.284	1/1	0.1[a]
Zinc	1.52	1/1	2[d]

[a] NYSDEC Class GA groundwater standard; June 1998
[b] Federal secondary maximum contaminant level
[c] Federal maximum contaminant level
[d] NYSDEC Class GA groundwater guidance values; June 1998

Key:
J = Estimated concentration
ND = Nondetect

Soil Excavation and Tank Containment Area Demolition

Contaminated soil was excavated from the loading dock area (grassy area and ramp area), parking lot area, tank containment area, and PCB dump area. The tank containment area wall and concrete slab were demolished and the material was stockpiled and properly disposed.

Confirmatory soil samples from the parking lot area and the PCB dump area were below the established cleanup goals and the stockpiled material was properly disposed. Confirmatory samples from the loading dock area and the tank containment area were above the cleanup goals for PCBs (Aroclor 1260) and these areas were overexcavated several times. The final confirmatory samples, which achieved the cleanup goals, were collected from the sidewalls and the bottom of the excavation.

Backfilling of individual excavations only occurred after all confirmatory sample results indicated that cleanup goals were achieved, post excavation surveys were completed, and authorization to backfill was granted. At this time, all additional stockpiled material was removed and transported to a disposal facility.

Concrete Scarification of Transformer Pad

Remedial actions at the rooftop transformer pad included scarification of one inch of concrete from the rooftop transformer rupture area. Confirmation wipe samples were collected and analyzed; all sample results were below the project cleanup goals. The material was properly disposed at a hazardous waste disposal facility.

Concrete Scarification of Foundation Walls

In July 1999, contaminated concrete at specified areas in the loading dock grassy area, ramp area, and tank contaminant area was removed and disposed. This work included the use of specialized equipment to scarify the outer one-eighth inch of concrete and collect the concrete and dust in 55-gallon drums through the use of a vacuum system. Confirmation wipe samples collected after scarification yielded results below the project cleanup goals.

All drums were labeled and sealed and were classified as hazardous waste based on the analytical results of soils excavated from areas directly adjacent to the concrete that was scarified. The concrete was then disposed of as hazardous waste at an appropriate disposal facility.

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the Building 112 AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils, soil gas, sediments, surface water, and groundwater at the site. The results of this assessment and the interim remedial action (see page 14) were considered when formulating the no further action with land use restrictions proposal.

Human Health Risk Assessment

Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Building 112 AOC could pose health risks to individuals under current and proposed future land use. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification—identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment—estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment—determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization—summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soils, sediments, and groundwater at the site were considered chemicals of potential concern with the exception of inorganics detected at concentrations less than twice the mean background concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). As a class, petroleum hydrocarbons were not included as a chemical of concern; however, the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated.

As proposed in the Griffiss Redevelopment Planning Council redevelopment scenario, the current and future land use designations for the Building 112 AOC are industrial/commercial. The human health risk assessment evaluated exposure to potential future industrial, construction, landscape, and utility workers. The various exposure scenarios for each population are described in Table 6. Intake assumptions, which are based on EPA guidance, are more fully described in the RI.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Building 112 AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

Table 6
BUILDING 112 AOC
RISK ASSESSMENT EXPOSURE SCENARIOS

INDUSTRIAL WORKER	CONSTRUCTION WORKER	LANDSCAPE WORKER	UTILITY WORKER
• Ingestion of groundwater • Dermal contact with groundwater (during showering) • Inhalation of VOCs from groundwater (during showering)	• Inhalation of fugitive dust from subsurface soil • Incidental ingestion of subsurface soil • Dermal contact with subsurface soil	• Incidental ingestion of surface soil • Inhalation of fugitive dust from surface soil • Dermal contact with surface soil	• Incidental ingestion of subsurface soil • Inhalation of fugitive dust from subsurface soil • Dermal contact with with subsurface soil

SUMMARY OF SITE RISKS (Cont.)

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. Once either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as the point of departure for determining remediation goals for alternatives.

Results of Site-Specific Health Risk Assessment

Potential risks from exposure to COPCs at the Building 112 AOC were evaluated for industrial, construction, landscape, and utility workers during the RI, prior to the interim remedial action. The potential carcinogenic and noncarcinogenic risks from exposure to surface soil, subsurface soil, and grab groundwater at the Building 112 AOC are summarized below.

Carcinogenic Risk

The total carcinogenic risk associated with exposure to contaminants in monitoring well groundwater by industrial workers is 9×10^{-7}. This value is below EPA's target risk range. The pathway-specific risks from ingestion and dermal exposure to groundwater were 8×10^{-7} and 1×10^{-7}, respectively.

The total carcinogenic risk associated with exposure by construction workers to subsurface soils is 2×10^{-6}. This value is within EPA's target risk range. The pathway-specific risks for construction workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were 2×10^{-6}, 7×10^{-9}, and 3×10^{-7}, respectively.

The total carcinogenic risk associated with exposure by landscape workers to surface soil was 1×10^{-5}. This value is within the EPA's target risk range. The pathway-specific risks for landscape workers from incidental ingestion of soil, inhalation of fugitive dust and dermal contact were 7×10^{-6}, 1×10^{-7}, and 6×10^{-6}, respectively.

The cumulative carcinogenic risk associated with exposure by utility workers to subsurface soil is 2×10^{-6}. This value is within EPA's target risk range. The pathway-specific risks for utility workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were 1×10^{-6}, 2×10^{-8}, and 1×10^{-6}, respectively.

Noncarcinogenic Risk

The total HI for a landscape worker exposed to surface soil at Building 112 AOC is 0.04.

This is below the benchmark value of 1. Of the three potential exposure pathways, the two greatest potential noncarcinogenic hazards were from incidental ingestion of soil and dermal contact with surface soil.

The total HI for utility workers exposed to subsurface soil at the Building 112 AOC is 0.008, which is below the benchmark value of 1. Of the three potential exposure pathways, the greatest potential noncarcinogenic hazard (0.005) was from the incidental ingestion of subsurface soil.

The total HI for construction workers exposed to subsurface soil at the Building 112 AOC is 0.2 which is below the benchmark value of 1. Of the three potential exposure pathways, the greatest potential noncarcinogenic hazard (0.2) was from the incidental ingestion of soil.

The total HI for industrial workers exposed to grab groundwater is 0.05. This is below the benchmark value of 1. The calculated HIs for ingestion of groundwater and dermal exposure to groundwater were 0.05 and 0.002, respectively.

Uncertainties

Uncertainties exists in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and health-protective assumptions throughout the entire risk assessment, results in an assessment that is protective of human health and the environment. Uncertainties associated with the risk assessment for the Building 112 AOC include (1) The HIs associated with dermal contact with soil were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (2) Chemical samples were collected from areas of known contamination which can result in a biased data set that may overestimate risk; (3) Construction at the site was assumed to occur over a one year period. Since construction may take less time to complete, this would result in an overestimation of risk; (4) It was assumed that groundwater would be used for industrial purposes in the future, however, this is unlikely since the site has ready access to the existing water supplies at the former base and in the City of Rome. This would result in an overestimation of risk; and (5) Toxicological criteria were not available for all chemicals found at the site, which may result in an underestimation of risk.

Ecological Risk Assessment

A baseline ecological risk assessment at the Building 112 AOC was conducted during the RI. The assessment modeled risks to the short-tailed shrew and raccoon through exposure to surface soil by ingestion and bioaccumulation through the food chain. Hazard quotients were calculated for each of the indicator species. For the raccoon, the hazard quotients calculated were each less than 1 with the greatest value for 2,3,7,8-TCDD (HQ = 0.0076). For the short-tailed shrew, three of the HQs were greater than 1; 2,3,7,8-TCDD (HQ = 4.3), cadmium (HQ = 1.4), and lead (HQ = 1.1). These values indicate a potential risk for adverse effects.

Modeling of bioaccumulation to higher order species was not performed, nor was the cumulative effect of multiple contaminants considered; this tends to underestimate the risk to ecological receptors.

Although certain state-listed endangered plants and animals have been observed on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

INTERIM REMEDIAL ACTION

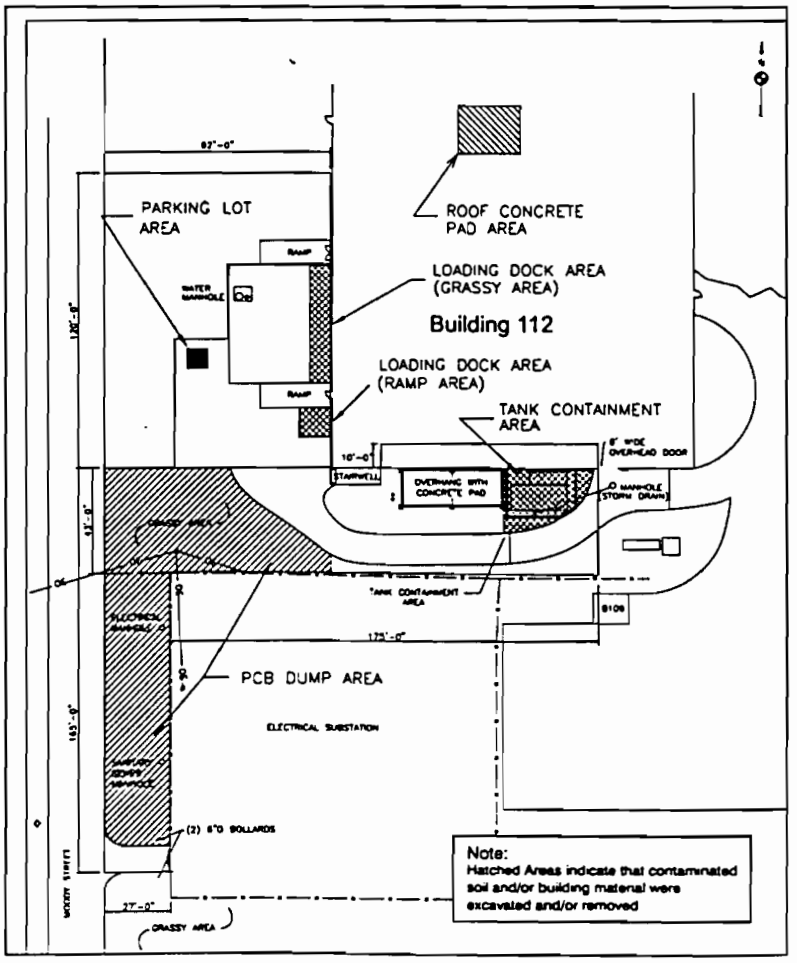
In 1998 and 1999, following the RI and baseline risk assessment, interim remedial action was performed at the Building 112 AOC. The work consisted primarily of soil excavation, confirmation sampling, transportation and off-site disposal of excavated materials, backfilling, restoration of grass, asphalt and concrete areas, scarification, and masonry demolition and repair. Each area of the Building 112 AOC was remediated individually so that all contaminated material would be segregated into its own stockpile. A brief summary of the remedial actions is provided below.

Soil Excavation and Tank Containment Area Demolition

Remedial action work activities began on July 15, 1998. Equipment was mobilized, work zones were established, and excavation was begun in three separate locations: the loading dock grassy area, the loading dock ramp area, and the parking lot area. On the following day, contaminated soil from the PCB dump area was excavated. On July 22, 1998 the demolition of the tank containment area wall and concrete slab began and the excavation of the west side of the parking lot area was extended by an additional five feet. The excavation of soil from the tank containment area was completed on July 27, 1998. Results from confirmatory samples obtained from the loading dock grassy area, loading dock ramp area, and tank containment area were above cleanup limits and these areas were over-excavated on August 5, 1998. New confirmatory samples were obtained for the new depths and sidewalls of the over-excavations. Based on confirmatory sample results that were above cleanup limits, the loading dock grassy area was over-excavated four additional times throughout September and October, 1998. The loading dock ramp area was over-excavated twice, once in September and once in October,1998.

Confirmatory samples were taken after the removal action was completed to verify the effectiveness of this interim remedial action. The results of the confirmatory soil samples were compared to the project cleanup goals of no greater than 1 ppm PCB from 0 to 1 foot BGS and no greater than 10 ppm PCBs at a depth greater than 1 foot. The results were acceptable and the project goals were met. The excavated areas were then backfilled with clean material.

On September 22 and 23, 1998 the excavated materials from the parking lot area and PCB dump area were loaded and transported to Seneca Meadows Landfill for disposal. The remaining stockpiled material from the parking lot area and PCB dump area was loaded and transported to Seneca Meadows Landfill for disposal on October 14, 1998. The total estimated volume of non-hazardous materials excavated and disposed from the PCB dump area and parking lot area were 163.8 and 39.3 cubic yards, respectively.



Building 112 Interim Remedial Action

The non-hazardous stockpiled material initially excavated from the tank containment area was loaded and transported to Seneca Meadows Landfill for disposal on October 23 and 26, 1998. The total estimated volume of initial non-hazardous soil excavated from the tank containment area was 14.2 cubic yards. Based on analytical results, the demolished tank containment area retaining wall was loaded and transported to Oneida-Herkimer Solid Waste Authority and disposed of as construction and demolition debris on October 29, 1998.

On July 6 and 7, 1999 the hazardous stockpiled material from the loading dock areas (grassy and ramp) and the tank containment area was loaded and transported to CWM Chemical Services for disposal. A portion of the brick wall removed from the tank containment area was also transported and disposed of at CWM Chemical Services. The total volume of hazardous materials excavated and disposed from the loading dock grassy area, loading dock ramp area, and tank containment area were 87.4, 63.5, and 21.3 cubic yards, respectively.

Concrete Scarification of Transformer Pad

The roof top transformer pad was prepared for scarification on July 23,1998. One inch of concrete from the rooftop transformer rupture area was scarified and stockpiled. Confirmation wipe samples were collected and analyzed; all sample results were below the project cleanup goals. The stockpiled material was classified as PCB TSCA regulated waste and was disposed of at CWM Chemical Services on July 6 and 7, 1999.

Concrete Scarification of Foundation Walls

On July 12 and 13, 1999 contaminated concrete at specified areas in the loading dock grassy area, loading dock ramp area, and the tank containment area were removed. Specialized cutting equipment operating under shrouds, vacuum equipment, and filters were used to scarify one-eighth of an inch of concrete and collect the concrete chips and dust in 55-gallon drums. The filters, hoses, and shrouds used during the scarification were disposed of in the drums containing the concrete chips and dust. The drums were labeled, sealed, and classified as hazardous waste based upon the analytical results of soils excavated from areas directly adjacent to the concrete that was scarified. The drums were later disposed of at CWM Chemical Services on September 28, 1999.

DESCRIPTION OF THE PREFERRED ALTERNATIVE

No further action for soils with land use restrictions for industrial/commercial use is proposed for the Building 112 AOC. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. The transfer documents will contain the following restrictions to ensure that the reuse of the site is consistent with the risk assessment:

- The property will be industrial/commercial use unless permission is obtained from the EPA, NYSDEC, and the New York State Department of Health; and
- The owner or occupant of the property shall not extract, utilize, consume, or permit to be extracted any water from the aquifer below the ground surface within the boundary of the property unless such owner or occupant obtains prior written approval from the New York State Department of Health.
- The owner or occupant of the property is restricted from relocating soil in the area during any construction activities. Soil below the clean fill must remain on site (and stay covered while stockpiled) and be covered by a minimum of twelve (12) inches of clean fill.

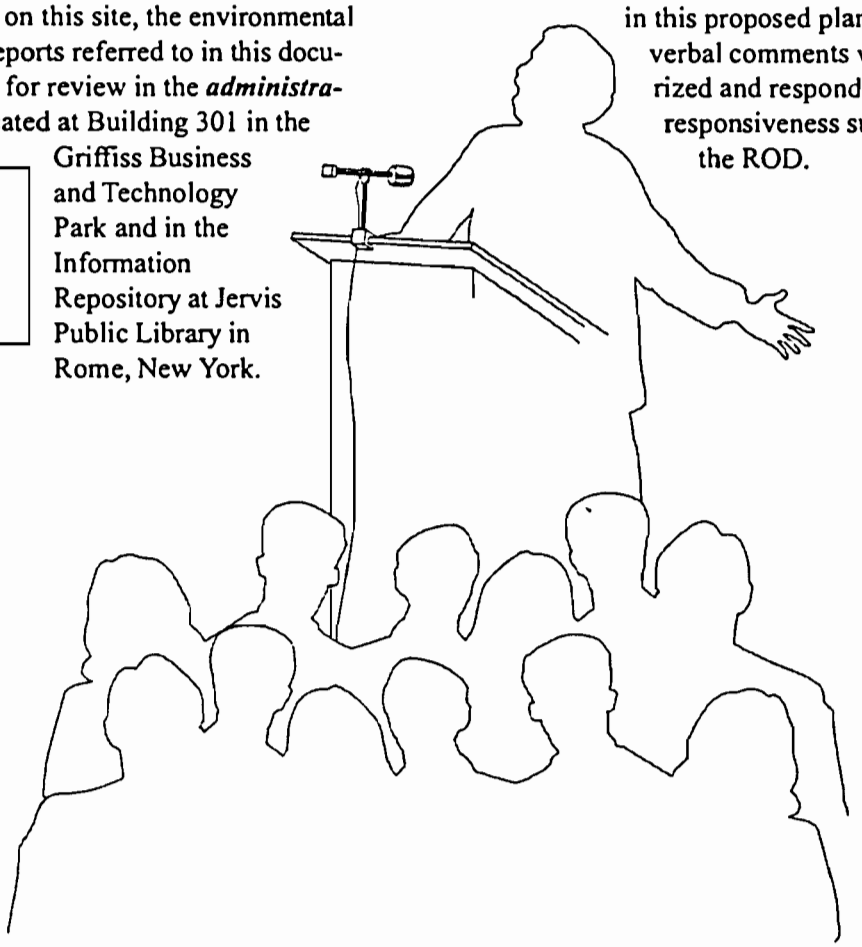
Following the interim remedial action, the majority of the chemicals detected at this AOC do not exceed standards and guidance values and the known source of the groundwater contamination has been removed. In addition, the baseline risk assessment for industrial/commercial use indicates that the levels of contamination present in the soils and groundwater prior to remediation fell within or below EPA's acceptable carcinogenic risk range and pose no noncarcinogenic risk to the industrial, construction, landscape, or utility workers. Therefore, the concentrations of chemicals in the soil and groundwater following the remedial action and the baseline risk assessment demonstrate that the site contaminants pose no current or potential threat to public health or the environment.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to take no further action with land use restrictions at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' remedial action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the preferred alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 18 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by XXXX X, 2001.

Public Comment Period

The agencies have set a public comment period from XXXX X, 2001, to XXXX X, 2001, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for X:XX pm, XXXXXX, XXXX X, 2001, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Building 112

Problem Identification/ Records Search: 1981

↓

Problem Confirmation and Quantification: 1982

↓

Field Investigation: 1985

↓

Griffiss AFB added to National Priorities List: 1987

↓

Health Assessment: 1988

↓

EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

↓

Griffiss designated for realignment by BRAC: 1993 and 1995

↓

ATSDR Health Assessment: 1995 Addendum: 1996

↓

Remedial Investigation Report Draft-Final: December 1996

↓

Closure Certification Report Draft: February 2000

↓

No Further Action with Land Use Restrictions Proposed Plan Draft-Final: December 2000

↓

No Further Action with Land Use Restrictions Proposed Plan Final: XXXXX 2000

↓

Public Comment Period: XXXX X, 2001 - XXXX X, 2001

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The New York State Department of Environmental Conservation

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The U.S. Environmental Protection Agency

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

fold here, please use only clear tape to seal

Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Building 112 AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Building 112 AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

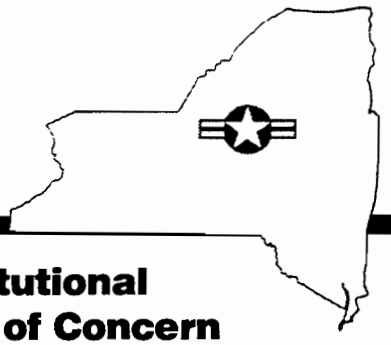
(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Building 112
AOC at the former
Griffiss AFB,
and to solicit
your comments.

Proposed Plan

BUILDING 20 AOC

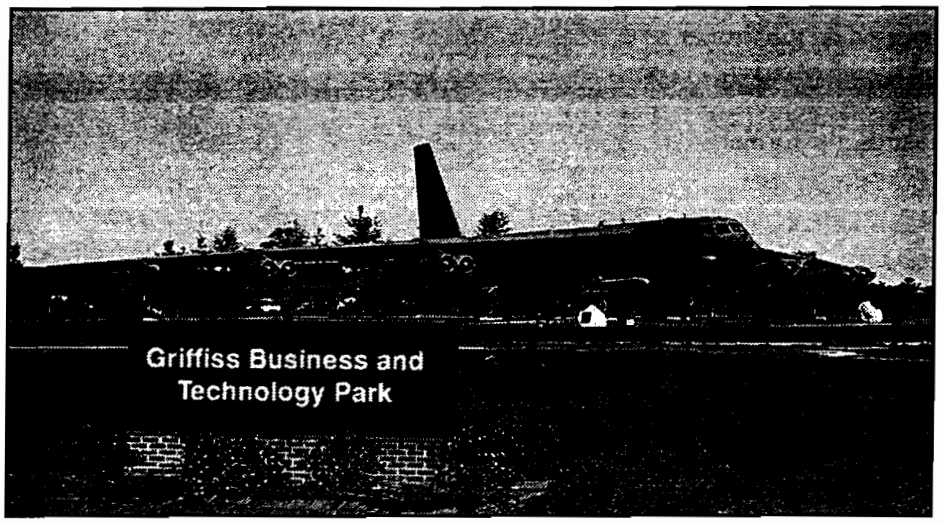


Former Griffiss Air Force Base
Rome, New York
Public Comment Period
XXXXX X, 2001 - XXXXX X, 2001

December 2000

Air Force Recommends Institutional Controls at Building 20 Area of Concern

Public Comments Solicited



Former Griffiss Air Force Base is located in Rome, New York.

This ***proposed plan*** is issued by the United States Air Force (Air Force) following consultation with the United States Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (NYSDEC). The Air Force recommends institutional controls in the form of land use restrictions for industrial/commercial use for the Building 20 ***Area of Concern***. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use.

The document has been prepared in accordance with public participation requirements of the ***Comprehensive Environmental Response, Compensation, and Liability Act of 1980***, *as amended,* ***the National Contingency Plan***, and the former Griffiss Air Force Base (AFB) ***Federal Facility Agreement***. In this document, the Air Force, EPA, and NYSDEC will be referred to as "the agencies."

This plan is intended to elicit public comments on the proposal to provide institutional controls at the site. The final decision or ***Record of Decision*** will be made only after the public comment period has ended and responses and information submitted during this time period have been reviewed and considered. Please refer to the Community Participation section at the end of this document for information on submitting public comments.

This Fact Sheet describes:

- The environmental investigations that have been conducted at Building 20 AOC.
- The proposed plan to provide institutional controls at Building 20 AOC.
- How you can participate in the final decision process for Building 20 AOC.

Proposed Plan
a document requesting public review and comment on a proposed remedial action at a particular site.

Area of Concern (AOC)
a location where hazardous substances are or may have been placed or may be located.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
commonly known as Superfund; a federal law that establishes a program to identify, evaluate, and remediate sites where hazardous substances may have been released, leaked, poured, spilled, or dumped into the environment.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
the federal regulation that provides the organizational structure and procedures for responding to releases of hazardous substances, pollutants, and contaminants.

Federal Facility Agreement (FFA)
an agreement between the EPA, the State of New York, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Record of Decision (ROD)
a public document that identifies the selected action at a site, outlines the process used to reach a decision on the remedy, and confirms that the decision complies with CERCLA.

SITE DESCRIPTION

Regional

The former Griffiss AFB covered approximately 3,552 contiguous acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. Topography within the valley is relatively flat, with elevations on the former Griffiss AFB ranging from 435 to 595 feet above mean sea level. Three Mile Creek, Six Mile Creek (both of which drain into the New York State Barge Canal, located to the south of the base), and several state-designated wetlands are located on the former Griffiss AFB, which is bordered by the Mohawk River on the west. Due to its high average precipitation and predominantly silty sands, the former Griffiss AFB is considered a ***groundwater recharge zone***.

Groundwater Recharge Zone
an area where the underlying aquifer (water-bearing zone) receives water (recharge) through downward flow of both precipitation which infiltrates into the ground and other surface water bodies such as streams, lakes, etc.

Base Realignment and Closure Act (BRAC)
a federal law that established a commission to determine which military bases would be closed and which would remain active.

Agency for Toxic Substances and Disease Registry (ATSDR)
the federal agency responsible for performing health assessments for facilities on the National Priority List.

Griffiss AFB Operational History

The mission of the former Griffiss AFB varied over the years. The base was activated on February 1, 1942, as Rome Air Depot, with the mission of storage, maintenance, and shipment of material for the U.S. Army Air Corps. Upon creation of the U.S. Air Force in 1947, the depot was renamed Griffiss Air Force Base. The base became an electronics center in 1950, with the transfer of Watson Laboratory Complex (later Rome Laboratory). The 49th Fighter Interceptor Squadron was also added in that year. In June 1951, the Rome Air Development Center was established with the mission of accomplishing applied research, development, and testing of electronic air-ground systems. The Headquarters of the Ground Electronics Engineering Installations Agency was added in June 1958 to engineer and install ground communications equipment throughout the world.

On July 1, 1970, the 416th Bombardment Wing of the Strategic Air Command (SAC) was activated with the mission of maintenance and implementation of both effective air refueling operations and long-range bombardment capability. Griffiss AFB was designated for realignment under the ***Base Realignment and Closure Act*** in 1993 and 1995, resulting in deactivation of the 416th Bombardment Wing in September 1995. Rome Laboratory and the Northeast Air Defense Sector (NEADS) will continue to operate at their current locations; the New York Air National Guard (NYANG) operated the runway for the 10th Mountain Division deployments until October 1998, when they were relocated to Fort Drum; and the Defense Finance and Accounting Services (DFAS) has established an operating location at the former Griffiss AFB.

Environmental Background

As a result of the various national defense missions carried out at the former Griffiss AFB since 1942, hazardous and toxic substances were used and hazardous wastes were generated, stored, or disposed at various sites on the installation. The defense missions involved, among others, procurement, storage, maintenance, and shipping of war materiel; research and development; and aircraft operations and maintenance.

Numerous studies and investigations under the U.S. Department of Defense Installation Restoration Program have been carried out to locate, assess, and quantify the past toxic and hazardous waste storage, disposal, and spill sites. These investigations included a records search in 1981, interviews with base personnel, a field inspection, compilation of an inventory of wastes, evaluation of disposal practices, and an assessment to determine the nature and extent of site contamination; Problem Confirmation and Quantification studies (similar to what is now designated a Site Investigation) in 1982 and 1985; soil and groundwater analyses in 1986; a base-wide health assessment in 1988 by the U.S. Public Health Service, ***Agency for Toxic Substances and Disease Registry***; base-specific hydrology investigations in 1989 and 1990; a groundwater investigation in 1991; and site-specific investigations between 1989 and 1993. ATSDR issued a Public Health Assessment for Griffiss AFB, dated October 23, 1995, and an addendum, dated September 9, 1996.

Pursuant to Section 105 of CERCLA, Griffiss AFB was included on the ***National Priorities List*** on July 15, 1987. On August 21, 1990, the agencies entered into a Federal Facility Agreement under Section 120 of CERCLA.

Under the terms of the agreement, the Air Force was required to prepare and submit numerous reports to NYSDEC and EPA for review and comment. These reports address remedial activities that the Air Force is required to undertake under CERCLA and include identification of AOCs on base; a scope of work for a ***Remedial Investigation***; a work plan for the RI, including a sampling and analysis plan and a quality assurance project plan; a baseline risk assessment; a community relations plan; and an RI report. The Air Force delivered the draft-final RI report covering 31 AOCs to EPA and NYSDEC on December 20, 1996. The draft Closure Certification Report for Interim Remedial Action was delivered on May 24, 2000.

This proposed plan for institutional controls is based on an evaluation of potential threats to human health and the environment due to contamination in the soil and groundwater and the performance of interim remedial actions at the Building 20 AOC.

During the RI, a site-specific ***baseline risk assessment*** (using appropriate toxicological and exposure assumptions to evaluate cancer risks and non-cancer health hazards) was conducted in order to evaluate the risks posed by detected site contaminants to the reasonably maximally exposed individual under current and future land use assumptions. The risk assessment for this site evaluated an industrial use scenario. In the RI report, the results of the risk assessment were compared to available standards and guidance values using federal and state environmental and public health laws that were identified as potentially ***applicable or relevant and appropriate requirements*** at the site. Chemical-specific ARARs are usually health- or risk-based numerical values or methodologies that result in a numerical value when applied to site-specific conditions. Currently, there are no chemical-specific ARARs for soil (other than for PCBs), therefore, other non-promulgated federal and state advisories and guidance values, referred to as ***To-Be-Considereds***, and ***background levels*** of the contaminants in the absence of TBCs, were considered.

National Priorities List (NPL)
a formal listing established by CERCLA of the nation's worst hazardous waste sites that have been identified for possible remediation. Sites are ranked by the EPA based on their potential for affecting human health and the environment.

Remedial Investigation (RI)
an environmental investigation that identifies the nature and extent of contamination at a site. Also provides an assessment of the potential risks associated with a site.

Baseline Risk Assessment
an assessment required by CERCLA to evaluate potential risks to human health and the environment. This assessment estimates risks/hazards associated with existing and/or potential human and environmental exposures to contaminants at an area.

Applicable or Relevant and Appropriate Requirements (ARARs)
"applicable" requirements mean those standards, criteria, or limitations promulgated under federal or state law that are required specific to a substance, pollutant, contaminant, action, location, or other circumstance at a CERCLA site. For example, the New York State groundwater standards. "Relevant and appropriate" requirements mean those standards, requirements, or limitations that address problems or situations sufficiently similar to those encountered at the CERCLA sites so that their use is well suited to that particular site.

To-Be-Considereds (TBCs)
advisories, criteria, or guidance that do not meet the definition of ARAR, but may be useful in developing remedial action alternatives. For example, the New York State groundwater guidance values.

Background Levels
the level of a chemical or contaminant naturally occurring in the vicinity of the site.

BUILDING 20 AREA OF CONCERN

Building 20 is located in the south-central portion of the base along the southern margin of the industrial complex (see Figure 1). It is bounded by Perimeter Road to the west and Ellsworth Road to the south (see Figure 2). Building 20 is the locomotive roundhouse, which was used to store and service diesel locomotives at the former base. Operations at Building 20 began in 1943. During operations, lubricants and diesel locomotive parts were used and stored in the roundhouse. PCB-containing hydraulic fluids were used in the locomotives.

In the northwest corner of Building 20, a sump collects surface runoff from floor drains located in Building 20. Liquid collected in the sump is pumped to the sanitary sewer, which ultimately discharges to the Rome publicly owned treatment works. A concrete conduit for steam lines is connected to the sump. The conduit runs north from the sump to the north wall of Building 20 where steam service enters the building. Sometime in the past, the steam service was rerouted overhead and the concrete conduit was abandoned. It is not known whether the conduit was subsequently plugged.

Building 20 is located on an area of the base that is topographically level, with about 3 feet of relief occurring in the surrounding area. The area around Building 20 is grassy to the south and predominantly paved to the north. The building is not located near any major surface water drainage features. Surface water runoff from the site is collected by the former base's storm drainage system. Storm drains run south to north on both the east and west sides of Building 20, carrying runoff to Six Mile Creek, which ultimately drains to the New York State Barge Canal.

Building 20 AOC is located on a groundwater divide; groundwater on the west side of the AOC flows to the west toward Three Mile Creek and on the east side groundwater flows east to Rainbow Creek.

The upper 2 feet of soil consists of fine-to-medium sand with silt and/or gravel. Subsurface soils and soils below the concrete inside the building and below the asphalt outside the building consisted primarily of fine to medium sand with variable silt and gravel ranging from 2 to 20 feet below ground surface (BGS).

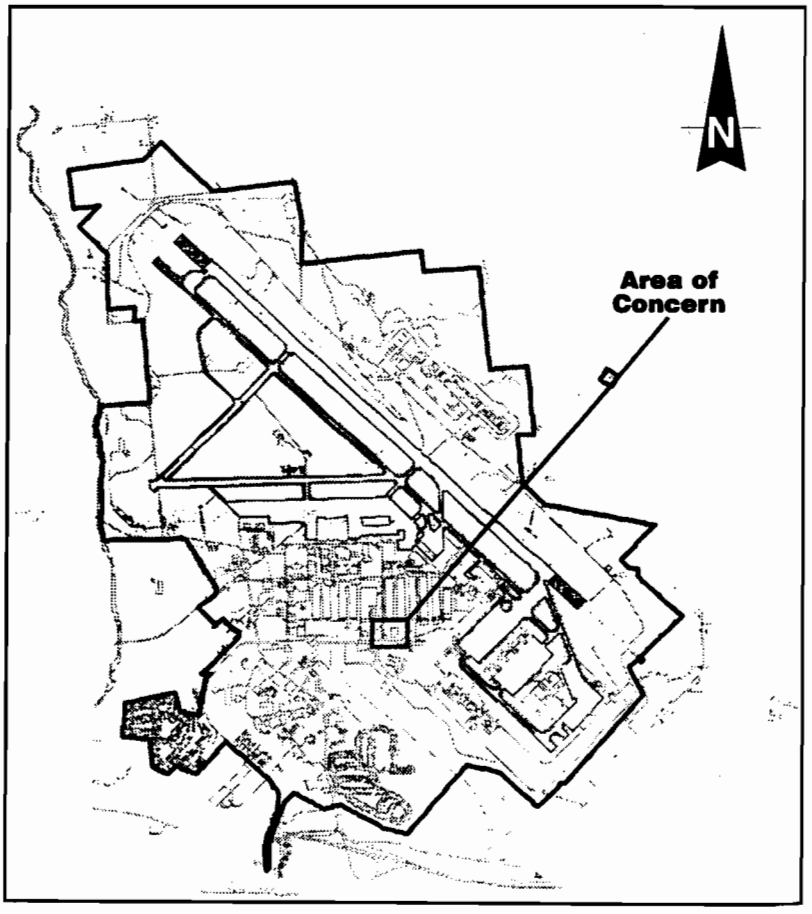


Figure 1: Building 20 AOC is located in the south central portion of the former Griffiss AFB.

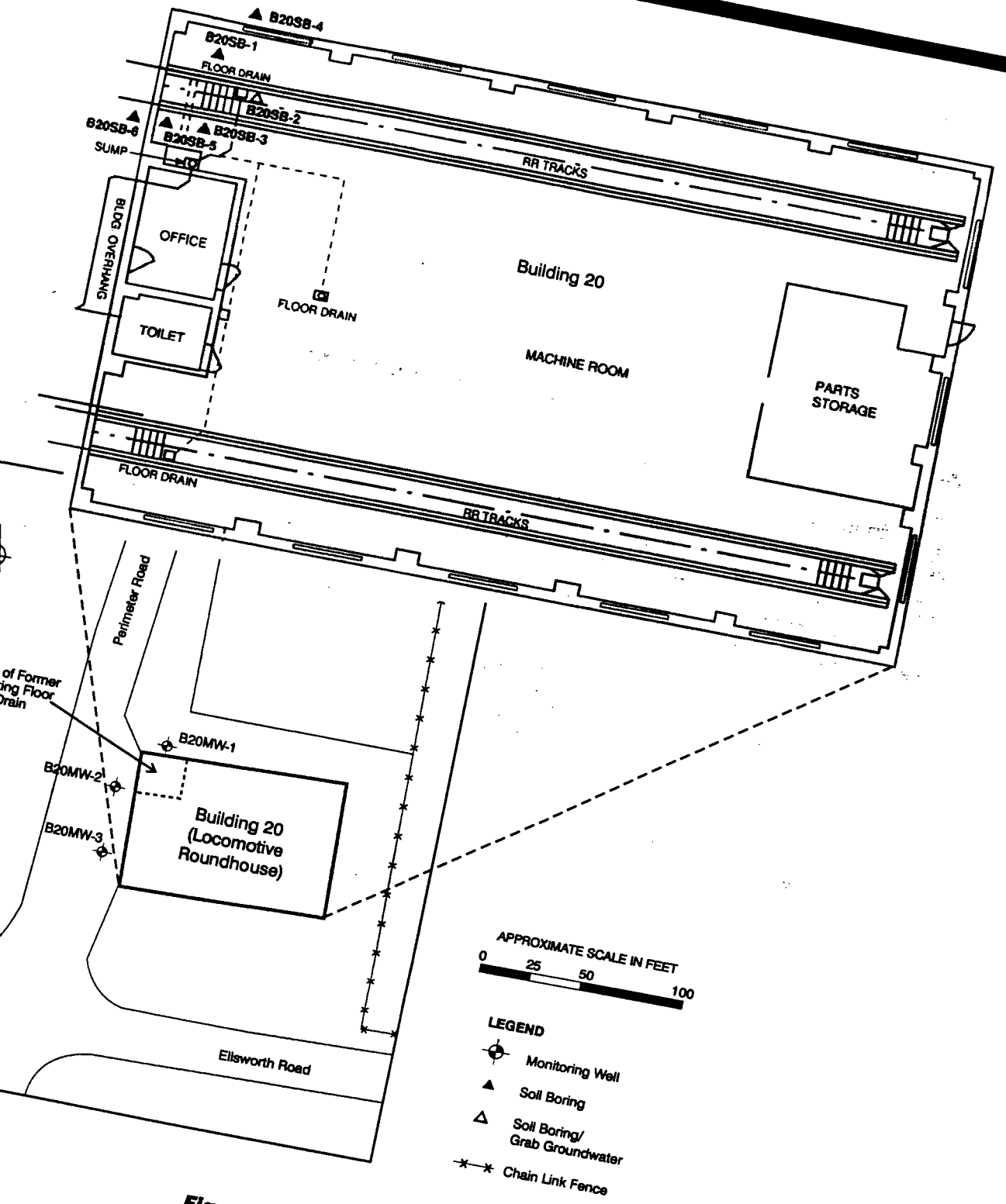


Figure 2: Building 20 AOC

SUMMARY OF SITE ACTIVITIES

Investigations

In 1985, soil was removed as part of steam tunnel entrance work at the northwest corner of Building 20. The construction contractor encountered a concrete conduit that housed a previously abandoned steam line. Upon penetration of the foundation, approximately 150 to 200 gallons of a free flowing oily liquid entered the excavation. It was determined that a floor drain system within the building and connected to the sanitary sewer system had developed a break which allowed waste fluids to leak into a cavity beneath the floor.

All recoverable liquid, contaminated soil, concrete, and debris encountered were containerized into 55-gallon drums (16 drums of liquids and 141 drums of solids). Subsequent analysis of the excavated material reported 109 parts per million (ppm) ***PCBs***, 700 ppm lead, and 446,000 ppm oil and grease. This material was properly disposed of by the Air Force in 1987.

In 1986, subsurface investigations at the northwest corner of Building 20 were performed. Five soil borings were advanced through the concrete floor inside the building, soil samples were collected at 2-foot intervals to groundwater (encountered at 8 feet BGS), and one grab groundwater sample was collected from each soil boring. One monitoring well B20MW-1 was also installed. The sampling results revealed residual hydrocarbon contamination in all borings and residual metals near the surface in the northwest and southwest corners of the building.

In 1992, as part of the 1992/1993 quarterly sampling program, B20MW-1 was sampled for four consecutive quarters. Three ***volatile organic compounds***, one ***semivolatile organic compound***, and ten metals were detected. Glycols were detected in two of the four quarters of sampling.

In 1994, an RI was performed. The main objective of the RI was to investigate the nature and extent of environmental contamination from historical releases at the AOC in order to determine whether any further remedial action was necessary to prevent potential threats to human health and the environment that might arise from exposure to site conditions. The RI included the dr of six soil borings; the collection of 19 soil sample on-site field screening analysis (four of which wer confirmed off-site); the collection of one grab gro ter sample from one of the soil borings; and the installation and sampling of two groundwater we (B20MW-2 and B20MW-3) and sampling of the existing well (B20MW-1).

No analytes were detected in the field screenin one grab groundwater sample collected for the Analysis of the groundwater samples indicate presence of four VOCs, 17 SVOCs, eight pes 21 metals, and petroleum hydrocarbons. Th tions of six SVOCs, one pesticide, seven m petroleum hydrocarbons exceeded the most criterion for groundwater (see Table 1).

Analysis of the soil samples collected dur screening indicated the presence of two S eight metals. Three metals were detecte tions above the potential TBCs and back screening levels. Analysis of the confir samples analyzed off site revealed the VOCs, 18 SVOCs, five pesticides, one and petroleum hydrocarbons. The co SVOCs and four metals exceeded po background screening concentration (see Table 2).

PCBs
(polychlorinated biphenyls) a group of synthetic organic chemicals with varying harmful effects. Humans come in contact with PCBs by breathing air, ingesting soil or water, and through dermal contact with soil or water containing PCBs.

Volatile Organic Compounds (VOCs)
a group of organic compounds that have a tendency to vaporize readily.

Semivolatile Organic Compounds (SVOCs)
a group of organic compounds that ar easily extracted from soil, water, etc., using an organic solvent.

Table 1
COMPOUNDS EXCEEDING STANDARDS AND GUIDANCE VALUES
BUILDING 20 AOC
GROUNDWATER SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/L)			
Benzo(a)anthracene	0.2 J - 0.3 J	2/4	0.002 [a]
Benzo(a)pyrene	0.2 J	2/4	ND
Benzo(b)fluoranthene	0.2 J - 0.4 J	2/4	0.002 [b]
Benzo(k)fluoranthene	0.08 J - 0.09 J	2/4	0.002 [b]
Chrysene	0.3 J - 0.4 J	2/4	0.002 [b]
Indeno(1,2,3-cd)pyrene	0.04 J - 0.09 J	2/4	0.002 [b]
Pesticides/PCBs (µg/L)			
Dieldrin	0.005 J	1/4	0.004 [a]
Metals (mg/L)			
Aluminum	0.66 - 1.02	2/3	0.05 [c]
Antimony	0.0142 J	1/3	0.003 [a]
Chromium	0.0142 J - 0.114 J	1/3	0.05 [a]
Iron	0.088 J - 2.65	2/3	0.3 [a]
Manganese	0.088 - 0.816	3/3	0.05 [c]
Sodium	36.8 - 384	3/3	20 [a]
Thallium	0.00045 J - 0.005 J	1/3	0.0005 [b]
Wet Chemistry (mg/L)			
Petroleum Hydrocarbons	0.09 J - 0.13 J	3/3	0.1 [a]

[a] NYSDEC Class GA groundwater standard; June 1998

[b] NYSDEC Class GA groundwater guidance values; June 1998

[c] Federal secondary maximum contaminant level

Key:
J = Estimated concentration*
ND = Nondetect
U = Analyte not detected

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

Table 2
COMPOUNDS EXCEEDING GUIDANCE VALUES
BUILDING 20 AOC
SOIL SAMPLES

Compound	Range of Detected Concentrations	Frequency of Detection Above Most Stringent Criterion	Most Stringent Criterion
SVOCs (µg/kg)			
Benzo(a)anthracene	31,000 J	1/4	224 [a]
Chrysene	38,000 J	1/4	400 [a]
Fluoranthene	130 J - 55,000	1/4	50,000 [a]
Phenanthrene	130 J - 75,000	1/4	50,000 [a]
Pyrene	100 J - 73,000 J	1/4	50,000 [a]
Metals (mg/kg)			
Calcium	1,950 - 74,800	2/4	23,821 [b]
Chromium	9.8 - 27.7 J	1/4	22.6 [b]
Silver	0.61 J - 6.4 J	1/4	1.1 U [b]
Sodium	196 - 598	1/4	259 [b]

[a] NYS-recommended soil cleanup objective

[b] Background screening concentration

Key:
J = Estimated concentration*
U = Analyte not detected

* Estimated concentrations are typically due to measuring very low levels below the quantitation limit but above the detection limit or due to a quality control concern identified by a data reviewer.

SUMMARY OF SITE RISKS

Site risks were analyzed based on the extent of contamination at the Building 20 AOC. As part of the RI, a baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found in the soils and groundwater at the site. The results of this assessment and the interim remedial action (see page 10) were considered when formulating this proposed paln for institutional controls.

Human Health Risk Assessment

Background Information

A baseline human health risk assessment was conducted during the RI to determine whether chemicals detected at the Building 20 AOC could pose health risks to individuals under current and proposed future land use. As part of the baseline risk assessment, the following four-step process was used to assess site-related human health risks for a reasonable maximum exposure scenario: Hazard identification—identifies the contaminants of concern at the site based on several factors such as toxicity, frequency of occurrence, and concentration; Exposure Assessment—estimates the magnitude of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathway (e.g., ingestion of contaminated soils) by which humans are potentially exposed; Toxicity Assessment—determines the types of adverse health effects associated with chemical exposures and the relationship between magnitude of exposure (dose) and severity of adverse effects (response); and Risk Characterization—summarizes and combines outputs of the exposure and toxicity assessments to provide a quantitative (e.g., one-in-a-million excess cancer risk and noncancer Hazard Index value) assessment of site-related risks and a discussion of uncertainties associated with the evaluation of the risks and hazards for the site.

Chemicals of potential concern (COPCs) were selected for use in the risk assessment based on the analytical results and data quality evaluation. All contaminants detected in the soils and groundwater at the site were considered chemicals of potential concern with the exception of inorganics detected at concentrations less than twice the mean background concentrations; iron, magnesium, calcium, potassium, and sodium, which are essential human nutrients; and compounds detected in less than 5% of the total samples (unless they were known human carcinogens). As a class, petroleum hydrocarbons were not included as a chemical of concern; however, the individual toxic constituents (e.g., benzene, toluene, ethylbenzene) were evaluated.

The current land use designation for the Building 20 AOC is industrial. In accordance with the Griffiss Redevelopment Planning Council redevelopment scenario, the future land use designation is commercial/administrative. The human health risk assessment evaluated exposure to potential utility and construction workers that may be exposed to chemicals detected in the soils and industrial workers that may be exposed to groundwater. The various exposure scenarios for each population are described in Table 3. Intake assumptions, which are based on EPA guidance, are more fully described in the RI.

Quantitative estimates of carcinogenic and noncarcinogenic risks were calculated for the Building 20 AOC as part of a risk characterization. The risk characterization evaluates potential health risks based on estimated exposure intakes and toxicity values. For carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the potential carcinogen. The risks of the individual chemicals are summed for each pathway to develop a total risk estimate. The range of acceptable risk is generally considered to be 1 in 10,000 (1×10^{-4}) to 1 in 1,000,000 (1×10^{-6}) of an individual developing cancer over a 70-year lifetime from exposure to the contaminant(s) under specific exposure assumptions. Therefore, sites with carcinogenic risk below the risk range for a reasonable maximum exposure do not generally require cleanup based upon carcinogenic risk under the NCP.

Table 3
BUILDING 20 AOC
RISK ASSESSMENT
EXPOSURE SCENARIOS

UTILITY AND CONSTRUCTION WORKERS	INDUSTRIAL WORKER
• Incidental ingestion of soils • Inhalation of fugitive dust • Dermal contact with soils	• Ingestion of groundwater • Dermal contact with groundwater • Inhalation of VOCs from groundwater

To assess the overall noncarcinogenic effects posed by more than one contaminant, EPA has developed the Hazard Quotient (HQ) and Hazard Index (HI). The HQ is the ratio of the chronic daily intake of a chemical to the reference dose for the chemical. The reference dose is an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, that is likely to be without an appreciable risk of deleterious effects during a portion of a lifetime. The HQs are summed for all contaminants within an exposure pathway (e.g., ingestion of soils) and across pathways to determine the HI. When the HI exceeds 1, there may be concern for potential noncarcinogenic health effects if the contaminants in question are believed to cause similar toxic effects.

EPA bases its decision to conduct site remediation on the risk to human health and the environment. Cleanup actions may be taken when EPA determines that the risk at a site exceeds the cancer risk level of 1 in 10,000 (1×10^{-4}) or if the noncarcinogenic HI exceeds a level of 1. Once either of these thresholds has been exceeded, the 1 in 1,000,000 (1×10^{-6}) risk level and an HI of 1 or less may be used as the point of departure for determining remediation goals for alternatives.

Results of Site-Specific Health Risk Assessment

Potential risks from exposure to COPCs at the Building 20 AOC were evaluated for utility, construction, and industrial workers during the RI, prior to the interim remedial action. The potential carcinogenic and noncarcinogenic risks from exposure to soil and groundwater are summarized below.

Carcinogenic Risk

The total carcinogenic risk associated with exposure by utility workers to subsurface soil is 1×10^{-6}, which is at the low end of the EPA's target risk range. The pathway-specific risks for utility workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were 1×10^{-6}, 3×10^{-10}, and 5×10^{-9}, respectively.

The total carcinogenic risk associated with exposure by construction workers to subsurface soil is 2×10^{-6}, which is within the EPA's target risk range. The pathway-specific risks for construction workers from incidental ingestion of soil, inhalation of fugitive dust, and dermal contact were 2×10^{-6}, 8×10^{-11}, and 1×10^{-9}, respectively.

The total carcinogenic risk associated with exposure by industrial workers to contaminants in groundwater is 1×10^{-4}, which is equal to the upper end of the EPA's target risk range. The pathway-specific risks for industrial workers from incidental ingestion of groundwater, inhalation of VOCs released from groundwater, and dermal contact with groundwater were 5×10^{-5}, 4×10^{-9}, and 6×10^{-5}, respectively. The risks from incidental ingestion of groundwater contaminated with arsenic and dermal contact with groundwater contaminated with benzo(a)pyrene were the greatest contributors to the risk.

Noncarcinogenic Risk

The total HI for potential utility workers exposed to subsurface soil was 0.001. This cumulative HI is below the acceptable level of 1.

The total HI calculated for potential construction workers exposed to subsurface soil was 0.05. This cumulative HI is below the acceptable level of 1.

The total HI for potential industrial workers exposed to groundwater was 2.0. This HI is above the acceptable level of 1. The calculated hazard indices for industrial workers from incidental ingestion of groundwater, inhalation of VOCs released from groundwater, and dermal contact with groundwater were 2.0, 2×10^{-6}, and 0.01 respectively. The exposure pathway presenting the greatest potential noncarcinogenic hazard was from the incidental ingestion of groundwater contaminated with thallium, manganese, antimony, and arsenic. None of the four contributors to the hazard index of 2 have the same target organ. Thus, the hazard index separated by target organ does not exceed the benchmark value of 1.

Toxicity values were not available for 2-methylnaphthalene, acenaphthylene, benzo(g,h,i)peryline, phenanthrene, coumaphos, and chloroneb and, therefore, the risk arising from exposure to these compounds was assessed qualitatively. Possible exposures to the site concentrations of these compounds are unlikely to pose a health hazard for occupational receptors potentially performing intrusive activities at this site.

The results of the human health baseline risk assessment indicate that chemicals in soil should not present a risk to current and future utility, construction, and industrial workers. The only potentially unacceptable risk was to industrial receptors from incidental ingestion of groundwater (HI equal to 2), which is an unlikely scenario. Quantitative evaluation of risk is subject to several conservative assumptions and should not be considered an absolute measure of risk.

Uncertainties

Uncertainties exist in many areas of the human health risk assessment process. However, use of conservative variables in intake calculations and health-protective assumptions throughout the entire risk assessment process results in an assessment that is protective of human health and the environment. Examples of uncertainties associated with the risk assessment for this AOC include (1) Chemical samples were collected from the suspected source of contamination rather than through random sampling, which may result in a potential overestimation of risk; (2) The HIs associated with dermal contact with soil were not quantified for the majority of COPCs, which may lead to underestimation of the overall risk due to dermal contact; (3) The models used in the RI are likely to overestimate exposure point concentrations in air, which would cause an overestimation of risk for the inhalation pathway; (4) Toxicological criteria were not available for all chemicals found at the site, which may result in an underestimation of risk; (5) Construction at the site was assumed to occur over a one year period. Since construction may take less time to complete, this would result in an overestimation of risk; (6) It was assumed that groundwater would be used for industrial purposes in the future, however this is unlikely since the site has ready access to existing water supplies at the former base and in the city of Rome. This would result in an overestimation of risk.

Ecological Risk Assessment

A baseline risk assessment for ecological receptors at the Building 20 AOC was conducted during the RI. Since Building 20 is located in a highly developed portion of the base, no complete exposure pathways for ecological receptors were identified. Contamination that may be associated with the site is expected to be well below ground surface and ecological receptors are not expected to be found at these depths. In addition, the future land use designation is expected to remain industrial. Therefore, potential exposures related to this AOC are not expected to exist.

Although certain state-listed endangered plants and animals have been on or in the vicinity of the base, no threatened and/or endangered species have been identified at this site. There are no federally listed (U.S. Department of the Interior) threatened or endangered plant or animal species at the former base.

INTERIM REMEDIAL ACTION

In 1998, following the RI and baseline risk assessment an interim remedial action was performed to remove contaminated soil beneath the floor near the northwest corner of the building (see Figure 3). The work consisted primarily of saw cutting and removal of concrete, soil excavation, confirmation sampling, transportation and off-site disposal of excavated materials, grouting of abandoned pipelines, plugging and capping of existing floor drains and sumps, backfilling, and concrete restoration. A brief summary of this remedial action is provided below.

Remedial action work activities began on August 12, 1998. Equipment was mobilized, work zones were established, and the floor was saw cut in the area of the large excavation in the northwest corner of the building. The concrete was removed and stockpiled on a bermed liner. On the following day, the concrete floor was saw cut around the floor drains and the concrete removed. All pipes leading to the northwest and south bay sumps were removed, plugged, and grouted and the sumps were plugged and capped. Contaminated soil was excavated from the northwest corner and added to the concrete stockpile on the bermed liner. The estimated volume of soil removed from the excavation was 2.1 cubic yards.

Confirmatory samples were taken after the removal action was completed to verify the effectiveness of this interim remedial action. The results of the confirmatory soil samples were compared to the project cleanup goals and NYSDEC TAGM 4046 guidance values. The confirmatory sample results were acceptable and the project goals were met. After the project goals were met, the excavated area was backfilled with clean material and the concrete floor slab replaced.

On October 16, 1998, the stockpiled material was loaded for transport to Seneca Meadows for disposal.

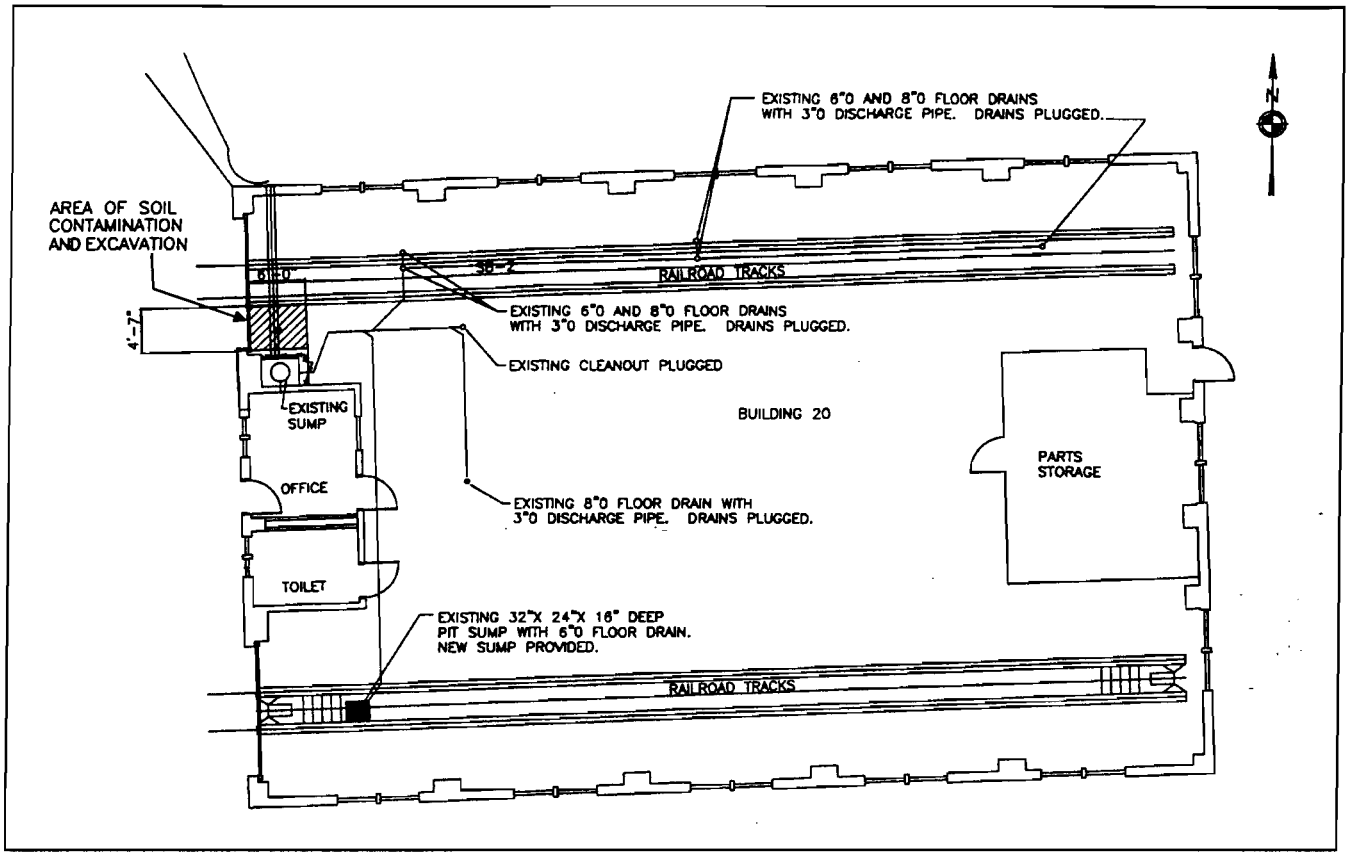


Figure 3: Building 20 Interim Remedial Action

DESCRIPTION OF THE PREFERRED ALTERNATIVE

Institutional controls in the form of land use restrictions for industrial/commercial use is proposed for the Building 20 AOC. Five-year reviews will be performed to ensure that future land use is in compliance with the transfer documents (deed) for industrial/commercial use. The transfer documents will contain the following restrictions to ensure that the reuse of the site is consistent with the risk assessment:

- The property will be industrial/commercial use unless permission is obtained from the EPA, NYSDEC, and the New York State Department of Health; and
- The owner or occupant of the property shall not extract, utilize, consume, or permit to be extracted any water from the aquifer below the ground surface within the boundary of the property unless such owner or occupant obtains prior written approval from the New York State Department of Health.

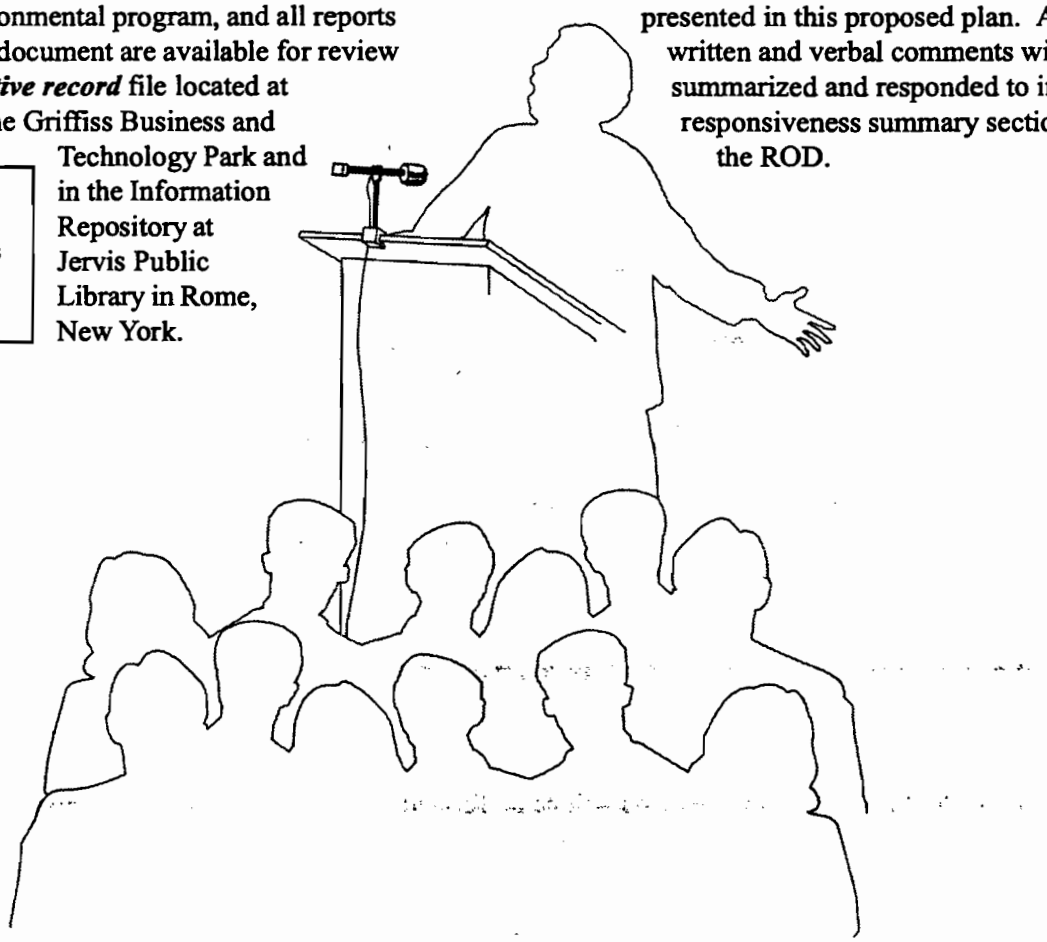
Following the interim remedial action, the majority of the chemicals detected at this AOC do not exceed standards and guidance values and the known source of the groundwater contamination has been removed. In addition, the baseline risk assessment for industrial/commercial use indicates that the levels of contamination present in the soils and groundwater prior to remediation fell within or below EPA's acceptable carcinogenic risk range and pose no noncarcinogenic risk to the utility and construction workers, and just a slight noncarcinogenic risk to the industrial worker from ingestion of groundwater, which is a very unlikely pathway. Therefore, the concentrations of chemicals in the soil and groundwater following the remedial action and the baseline risk assessment demonstrate that the site contaminants pose no current or potential threat to public health or the environment.

COMMUNITY PARTICIPATION

The agencies desire to have an open dialogue with citizens concerning the results of the RI and encourage citizens to participate by commenting on the proposal to provide institutional controls at the site. This interaction between the agencies and the public is critical to the CERCLA process and to making sound environmental decisions. Details on this site, the environmental program, and all reports referred to in this document are available for review in the ***administrative record*** file located at Building 301 in the Griffiss Business and Technology Park and in the Information Repository at Jervis Public Library in Rome, New York.

Administrative Record
documents including correspondece, public comments, and technical reports upon which the agencies base their remedial action selection.

The public is encouraged to review all aspects of the RI and administrative record and comment on the agencies' no further action proposal. The agencies will consider all public comments on this proposed plan in preparing the ROD. Depending on comments received, the plan presented in the ROD could be different from the no further action alternative presented in this proposed plan. All written and verbal comments will be summarized and responded to in the responsiveness summary section of the ROD.



How You Can Participate

Whether you are reading this type of document for the first time or are familiar with the Superfund process, you are invited to participate in the process.

- Read this proposed plan and review additional documents in the administrative record file.
- Contact the Air Force, EPA, or NYSDEC project managers listed on page 14 to ask questions or request information.
- Attend a public meeting and give verbal comments (see details below).
- Submit written comments (see comment form on back cover) by XXXX X, 2001.

Public Comment Period

The agencies have set a public comment period from XXXX X, 2001, to XXXX X, 2001, to encourage public participation in the selection process. Written comments should be sent to:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Public Meeting

The comment period includes a public meeting at which the Air Force will present the proposed plan. Representatives from the agencies will be available to answer questions and accept both oral and written comments. The public meeting is scheduled for X:XX pm, XXXXXX, XXXX X, 2001, and will be held at the Floyd Town Hall, 8299 Old Floyd Road, Rome, New York.

Environmental Timeline Building 20

Problem Identification/ Records Search: 1981

|

Problem Confirmation and Quantification: 1982

|

Field Investigation: 1985

|

Griffiss AFB added to National Priorities List: 1987

|

Health Assessment: 1988

|

EPA, NYSDEC, and Air Force enter into Federal Facility Agreement: 1990

|

Griffiss designated for realignment by BRAC: 1993 and 1995

|

ATSDR Health Assessment: 1995 Addendum: 1996

|

Remedial Investigation Report Draft-final: December 1996

|

Closure Certification Report Draft: February 2000

|

Institutional Controls Proposed Plan Draft-Final: December 2000

|

Institutional Controls Proposed Plan Final: XXXX 2000

|

Public Comment Period: XXXX X, 2001 - XXXX X, 2001

More Griffiss Air Force Base Environmental Information



General information concerning the environmental program at the former Griffiss AFB can be found in the Information Repository located at the Jervis Public Library, 613 North Washington Street, Rome, New York 13440 (phone 315-336-4570). Visit the repository or call 315-330-2275 to ask about the installation activities or request background information.

Additional Information

Three agencies have been identified in the Federal Facility Agreement: Air Force, NYSDEC, and EPA. The agreement ensures that environmental impacts on public health, welfare, and the environment associated with past and present activities at the former Griffiss AFB are thoroughly investigated and appropriate remedial actions are taken as necessary to protect the public health, welfare, and the environment. Any of the following agency representatives may be contacted to obtain additional information:

The **Air Force** is legally responsible for the environmental activities at the former Griffiss AFB. Since this site is on the National Priorities List, all investigations and cleanup plans are finalized only after consultation with EPA and NYSDEC.

For additional information concerning the environmental program at the former Griffiss AFB and the Air Force's role in preparing this proposed plan, contact:

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441
(315) 330-2275

The **New York State Department of Environmental Conservation**

For additional information concerning the state's role in preparing this proposed plan, contact:

Mr. Jonathan Greco
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010
(518) 457-3976

The **U.S. Environmental Protection Agency**

For additional information concerning the EPA's role in preparing this proposed plan, contact:

Mr. Douglas Pocze
U.S. Environmental Protection Agency,
Region II
290 Broadway, 18th floor
New York, NY 10007-1866
(212) 637-4432

(Comments continued. Attach additional pages, if necessary.)

fold here, please use only clear tape to seal

Place
Stamp
Here

Mr. Michael McDermott
BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

Building 20 AOC

This comment form is provided for your convenience in submitting written comments to the Air Force concerning Building 20 AOC. If you would like to receive a copy of the Record of Decision and Responsiveness Summary, which address public comments received on this project, please make sure the information on the mailing label below is correct.

Comments:

(continued on reverse)

BRAC Environmental Coordinator
Air Force Base Conversion Agency
153 Brooks Road
Rome, NY 13441

This mailing
is to inform you of
the proposed
environmental plan
for the Building 20
AOC at the former
Griffiss AFB,
and to solicit
your comments.

J. Greco

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

DEC 14 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Re: **Addendum to the July 1998 Supplemental Investigations of Areas of Concern, Technical Memorandum No. 1: On-Base Groundwater (Area South of the WSA).**

Dear Mr. McDermott:

I have reviewed the **Addendum to the July 1998 Supplemental Investigations of Areas of Concern, Technical Memorandum No. 1: On-Base Groundwater (Area South of the WSA)**, dated October 2000 and have attached my comments.

Please note, my comments are divided into two sections. Section 1.0 presents general comments which address concerns identified throughout the document and Section 2.0 presents specific comments that identify concerns within individual pages, sections, paragraphs, figures, and tables of the document.

Should you have any questions, please contact me at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Project Manager

attachment

cc: J. Greco, NYSDEC, w/att.

Technical Review
Addendum to the July 1998 Supplemental Investigations of Areas of Concern, Technical Memorandum No. 1:
On-Base Groundwater (Area South of the WSA)
Former Griffiss Air Force Base - Rome, New York

I. GENERAL COMMENTS

1. It would be helpful to also present the data on three separate figures representing the total chlorinated ethene concentrations in the shallow, intermediate, and deep well zones. Although Figure 3-2 shows the highest concentrations, the actual shape of the plume may be different when plotting the concentrations in each of the three zones. For example, in some wells, the TCE concentration used was detected in the shallow well sample, but in others, the TCE concentration detected in the deep well sample was used. Therefore, the total chlorinated concentrations presented may not reflect an actual plume, but a "smeared" distribution of the results.

2. After examination of the groundwater results from the Year 2000 SI, perhaps there is another source of contamination in addition to the proposed source at Building 817. Data presented in Table 3-3 indicate elevated concentrations of PCE at wells WSA-GP07 and WSA-GP26 (shallow sample), an elevated concentration of TCE at WSA-GP07 (shallow sample), and an elevated concentration of DCE at WSA-GP06 (deep sample). The data appears to represent a plume that is moving according to the groundwater contours that are shown in Figure 3-1. The source of these chlorinated compounds appears to be located upgradient of well WSA-GP07 but downgradient of wells WSA-GP27 and WSA-GP08 because the compounds were not detected in either of these wells. One suggestion of the possible source area of this contamination is the area referred to as the "Abandoned Underground Electric." The potential for a second source area should be further examined.

3. The data indicates the contaminate plume has reached the bedrock either remaining on top of the bedrock or possibly penetrating the bedrock. Therefore, further investigation as to whether the contamination has penetrated the bedrock needs to be determined.

II. SPECIFIC COMMENTS

1. Section 3.1, Third Paragraph, Page 3-2: The text that states that "contamination at the site appears to have resulted from several spill or disposal events, creating several hot spots of contamination within the water column..." As noted in General Comment #1, this theory might be better supported if the plume was analyzed on a zone-by-zone basis.

2. Figure 3-2: Correct the label for WSA-GP06D to indicate that this well has a cis 1,2-DCE concentration of 1.6 µg/L.

3. Section 3.1, Page 3-3: Text suggests that the decrease in concentrations in Well LAWMW-9 at this site, "corresponds well with the direction of groundwater flow ... and hence with expected plume migration." While this may be true, one could also claim that since only two events are compared and that the concentration levels are very low and not all that different in value, the apparent decline could easily have been caused by random errors associated with sampling and/or analysis. The text should be revised.

4. Table 3-1: Recommend removal of the lines that say "WSA Year 2000 SI," "On Base Groundwater RI" and "Weapon Storage Area RI." The existing table implies that the data presented were collected during those sampling rounds.

3 Greco

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Re: Review of the Draft Covenant Deferral Request and Finding of Suitability For Early Transfer (FOSET) for the Parcel F-4B.

Dear Mr. McDermott:

I have reviewed the Draft Covenant Deferral Request and Finding of Suitability For Early Transfer (FOSET) for the Parcel F-4B dated November 28, 2000. Upon review of the documents and supporting information, the following are my comments.

1) Section 1. Although it is stated later in the FOSET, the future use of the property should also be identified within this section.

2) Section 3. Please include the following, "Based on this analysis, the environmental impacts of proceeding ... and the public interest and to prevent transfer of the property provided the appropriate restrictions identified within this document are observed."

3) Section 5.2.1, SS-38, Building 775, Pumphouse 3, TCE Contamination. Please indicate that the TCE contamination which originates at Building 775 continues beyond the building boundary and beyond the FOSET F-4B boundary.

4) Section 5.2.1, SD-52, On-Base Groundwater Contamination. Please delete the sentence, "With the exception of sites SS-38 and SS-54 as noted, groundwater restrictions are not required for the property other than global groundwater restrictions." This statement is confusing. Because SS-38 and SS-54 require groundwater restrictions and you have several open spills for petroleum constituents, implying that "groundwater restrictions are not required for the property" is misleading.

5) Section 5.2.2, LF-09, Landfill No. 6. Please indicate that the investigation and remediation work being performed at LF 6 is being performed in conjunction with the work at Building 775.

6) Exhibit 1. The Visual Site Inspection Forms should provide a description of the buildings' interior and exterior condition, specially pertaining to the condition of

any LBP and asbestos material.

7) Exhibit 2. The large map which shows the different restrictions should be revised to clearly indicate each restricted areas.

Should you have any questions, I can be reached at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Remedial Project Manager

cc: J. Greco, NYSDEC

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

DEC 12 2000

MEMORANDUM FOR SEE DISTRIBUTION LIST

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Submittal – Primary Document – Draft Proposed Plans for Two (2) Areas Of Concern

1. Enclosed please find the draft Proposed Plans for Area Of Concern (AOC) sites Building 3 (DP-11) and Lot 69 (SS-17).

2. If you have any questions, please contact Mike Wojnas, 315-330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachments:
Draft Proposed Plans for Two AOCs

DISTRIBUTION:

Ms. Lynn Hancsak
HQ AFBCA/DA- Env Section
4th Floor
1400 Key Blvd
Arlington VA 22209-2802 (2 copy)

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USEPA - Region II
Federal Facilities Section
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Mr. Sal Ervolina, Director
Mr. Jonathan Greco, Project Manager
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
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Mr. Art Ditto
AFBCA/DA-EC
302 Newmarket Street, Bldg. 151
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New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action, Room 242
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-4349 • **FAX:** (518) 457-4198
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

December 12, 2000

Mr. Michael McDermott
BRAC Environmental coordinator
AFBCA/OL-X
153 Brooks Rd.
Griffiss AFB, NY 13441-4105

FILE COPY

Dear Mr. McDermott:

Re: Parcel F4; Finding of Suitability for Early Transfer (FOSET)

The New York State Department of Environmental Conservation (NYSDEC) has reviewed the referenced document and offers the following comments:

1. Section 4: The property is categorized as a 5, however, that property condition requires that there be an active remediation in progress, which there is not. Since the property is still in the RI/FS process, a category 7 assignment may be appropriate.

2. Page 6; SS-54; Second Paragraph: The deed restriction stated here is not consistent with the one on Exhibit 2. Specifically, the one on page 6 would restrict access to all subsurface soils, while the one in Exhibit 2 restricts access to only soils at and below the groundwater table. The later restriction should only be used if the soils have been cleaned to the top of the groundwater table.

3. Page 6; SS-54; Fourth Paragraph; Sixth Line: Please change "and" to "and/or", as this will allow for the possibility of approving the use of water if it were treated to attain standards.

4. Each of Visual Site Inspections (VSI) is dated December, 2000, yet the document was received in November. Are the VSIs in this draft up to date, or was the date changed to reflect that they will be done during December?

5. Please reassert that the Air Force's September 28, 1998 letter regarding its obligation to cleanup non-CERCLA wastes on transferred parcels is still valid.

Please contact me at (518) 457-0549 if you would like to discuss this matter.

Sincerely,

Jonathan Greco
Project Manager
Division of Environmental Remediation

CC: S. Ervolina
M. Chen
B. Wing/D. Pocze (USEPA)
H. Hamel (NYSDOH, Syracuse)
A. Quartararo
S. Dimeo
L. Hancsak

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

December 7, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, New York 13441-4105

Attention: Ms. Kathy Jerrard

Re: Spill No. 9111732
Bldg. 26
Rome (C), Oneida County

Dear Ms. Jerrard:

This letter is written to inform you that based upon review of documentation you submitted to this office on October 3, 2000 and our meeting of December 6, 2000, this spill has been closed as "meeting state standards" as of December 7, 2000.

Therefore, this office is not requiring further remedial action to be performed at this time.

This closure does not alleviate you from liability should any unforeseen problem arise in the future as a result of this spill.

Any monitoring wells on this site should be properly abandoned or, if still required, be maintained to assure groundwater protection.

Thank you for your cooperation in resolving this matter.

If you have any questions, feel free to contact me.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco, NYSDEC
NFC:ds

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

DEC 0 4 2000

MEMORANDUM FOR DISTRIBUTION LIST

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome NY 13441-4105

SUBJECT: Submittal - Draft Final Proposed Plan for Building 117 Source Removal AOC at Griffiss Air Force Base

1. Enclosed please find the draft final Proposed Plan for Building 117. Also attached are responses to USEPA's May 19, 1999 comments on the February 1999 Draft Building 117 Proposed Plan.

2. If you have any questions, please contact Cathy Jerrard at (315) 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachments:
1. Draft Final Proposed Plan for Building 117
2. Responses to comments dated 20 November 2000

DISTRIBUTION:

Ms. Lynn Hancsak
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1400 Key Blvd. 4th Floor
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USEPA - Region II
Federal Facilities Section
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New York City, NY 10007-1866 (2 copies)

Mr. Andrew Bellina
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Mr. Art Ditto
AFBCA/DA-EC
302 Newmarket Street, Bldg. 151
Pease ANGB, NH 03803-0157 (1 copy)

November 20, 2000

The following are the responses to comments on the Building 117 proposed plan (February 1999) provided by EPA on May 19, 1999.

1. page 2, Environmental Background. **Comment:** The word "material" is misspelled.
Response: The word "materiel," as written in the text, means "equipment and supplies of a military force", which would be correct for this application.

2. page 3, Environmental Background. **Comment:** The current wording implies that these documents were approved by EPA and DEC (e.g., Final EE/CA) and they were not. Therefore, delete reference to these documents or revise the wording to indicate that they are not approved by the regulators.
Response: The following wording will be included in parentheses: "these reports have not been formally approved by EPA and NYSDEC."

3. page 4, Environmental Background. **Comment:** Additional details regarding the tanks should be provided. For instance, type of tank (e.g., steel, concrete), depth of tanks (e.g., depth below the surface and height above the groundwater), testing performed during the 1988 removal.
Response: Additional information regarding the tanks will be included, as follows: "The tanks were made of steel and were 10 feet in diameter and 44 feet long. The top of the tanks were buried approximately 6 feet below ground surface." According to the removal contract, any contaminated soil was to be excavated. Also, according to interviews with base personnel, contaminated soil associated with the site was removed. This information will be included in the proposed plan.

4. page 6, Soil Leachate Results. **Comment:** Please indicate whether the sampling results represent an impact to groundwater.
Response: The only contaminant that exceeded the NYSDEC STARS Memo No. 1 guidance value (10 ug/L) was napthalene at a concentration of 15 ug/L. The groundwater sample results do not show that naphthalene has leached at concentrations above the groundwater standards, and thus should not be considered to represent a potential threat to groundwater.

5. page 6, Groundwater Results. **Comment:** Provide explanation as to how "low" the concentrations of VOCs were and which 14 SVOCs were detected. Please provide a comparison of the results to appropriate standards (i.e., MCLs or NYS GW Standards).
Response: Low would mean below groundwater standards or guidance values. On page 7 it is stated that the VOCs were below these values. Following the approach used in previous proposed plans, the five SVOCs that exceeded the NYS groundwater guidance values are listed on page 7; the 14 detected SVOCs will be listed on p. 6 under Groundwater Results, if that is still desired by EPA. A comparison to standards is provided for all detected chemicals on page 7.

6. page 7, Groundwater. **Comment:** Naphthalene was detected at 4 ug/L, but not included in the section of comparison of groundwater results and regulatory standards found on page 7. Please clarify. Was turbidity a concern and the data rejected? Explain.
Response: Napthalene is not included on page 7 because it did not exceed the GW guidance value of 10 ug/L. Only those that exceeded the standards or guidance values were discussed (data was not rejected). However, this point will be made more clearly on page 7.

7. page 7, Groundwater. **Comment:** Please reference the MCLs as a standard to which the groundwater was assessed and whether there were exceedances of MCLs.
Response: All sample results were compared to the NYS Standards and Guidance Values. In all cases for the VOCs listed on page 6, the Federal MCLs are equal to or higher than the NYS values and in some cases there are no Federal MCLs for a chemical (e.g. naphthalene). For the

SVOCs that exceeded the NYS values (listed on page 7), the Federal MCLs are at least 100 times greater than the NYS value (e.g., 0.2 ug/L vs. 0.002 ug/L). If a comparison of the data to Federal MCLs is still desired by EPA, it will be added to the proposed plan.

8. page 7, Comparison of Analytical Results and Regulatory Standards. **Comment:** The summary of the risk information presented is not appropriate since it does not provide background information on the risk assessment approach. Please provide risk assessment information, as provided in other proposed plans (e.g. landfills) which support the recommended alternative. Also please note that the December 1991 Risk Assessment guidance is only one of several documents used in the EPA risk assessment process and not the only document.
Response: A risk assessment, as performed for the landfills, was not performed for the source removal sites because the source of contamination had already been removed in previous removal actions. The risk screening referred to in the proposed plan was a simple risk screening using the exposure equations from EPA's Risk Assessment Guidance for Superfund and very conservative assumptions (e.g., residential use of groundwater, which is not likely) and the standard default parameters for drinking water for reasonable maximum exposure. This screening was performed during the development of this proposed plan to provide a comfort level that, based on very conservative assumptions, potential risks were within EPA's target risk range. This section will be clarified.

9. page 7, Comparison of Analytical Results and Regulatory Standards. **Comment:** As described in EPA's guidance both cancer and non-cancer hazards should be presented in the document. The current document only presents the cancer risks for adults. Likewise, risks to children must be addressed.
Response: Noncarcinogenic risk screening was not performed because there were no toxicity values for the SVOCs listed (this will be stated in the proposed plan). A simple risk screening was done for cancer risks, as stated above. It was never the intent to perform a detailed risk assessment, which would have addressed the risk to children.

10. page 8, Description of Preferred Alternative, 2nd paragraph. **Comment:** The sentence should read, "*A risk screening analysis indicated no "unacceptable" risk to potential future residents from ingestion of groundwater at this site.*"
Response: The wording will be changed.

11. page 9, Environmental Timeline. **Comment:** The Timeline should be modified to indicate the Health Assessment was conducted by ATSDR. In addition, the ATSDR health assessments issued in 1995 and 1996 discussed on page 3 should also be listed in the Timeline.
Response: The timeline will be changed.

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

November 30, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, New York 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9208334 U.S.T. T-10 Pipeline
Spill No. 9605908 U.S.T. -014
Spill No. 9413303 U.S.T. B-100 O.W.S.
Spill No. 9101749 U.S.T. Bldg/U.S.T.'s 210 & 480
Spill No. 9609341 U.S.T. 504
Spill No. 9610380 U.S.T. 820-2
Spill No. 8604280 U.S.T. 822
Spill No. 8808975 U.S.T. 859
Spill No. 9202808 Bldg. 896
Rome (C), Oneida County

Dear Mr. Rabe:

This is in response to your letter/work plan dated April 13, 2000 for planned investigative work to be performed at the referenced sites.

All soil samples should be analyzed for **totals and TCLP.**

At bldg. 822 your consultant should attempt to install a down gradient boring and if the tank is still on site, it should be properly closed.

In general the work plan is acceptable.

Reports documenting work performed as a result of this plan should be submitted to this office within 90 days of completion.

If you have any questions, feel free to contact me.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco, NYSDEC
NFC:ds

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

NOV 16 2000

MEMORANDUM FOR Mr. Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany, NY 12233-7010

Mr. Douglas Pocze
USEPA - Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York City, NY 10007-1866

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Former Griffiss Air Force Base Year 2000 Expanded Site Investigation (ESI)

1. Attached is the subject report dated November 2000.

2. If you have any questions, please contact Cathy Jerrard at (315) 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment: As Noted

cc: USACE, KC District, Mr. Robert M. Pender

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

NOV 16 2000

MEMORANDUM FOR Mr. Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany, NY 12233-7010

Mr. Douglas Pocze
USEPA - Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York City, NY 10007-1866

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: AOC 9: Weapons Storage Area (WSA) Landfill Supplemental Investigation Data Summary Report

1. Attached is the WSA Landfill Supplemental Investigation Data Summary Report dated November 2000.

2. If you have any questions, please contact Cathy Jerrard at (315) 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment: As Noted

cc: USACE, KC District, Mr. Robert M. Pender

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

NOV 15 2000

TG

Re: *Draft Proposed Plans for Bldgs. 20, 112, 222, and 255 and the T-9 Area*

Dear Mr. McDermott:

I have reviewed the *Draft Proposed Plans for Bldgs. 20, 112, 222, and 255 and the T-9 Area*, dated October 2000 and have attached my comments. Please review these comments and provide a draft final document for EPA approval prior to public noticing the plans.

Should you have any questions, please contact me at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Project Manager

attachment

cc: J. Greco, NYSDEC, w/att.

COMMENTS ON PROPOSED PLANS

Bldg 20

1) Pg 3, 2nd pp. - Delete the words, "and a work plan and report for site closure" since the next sentence addresses the site closure report. Please note the Ocuto Site Closeout Reports are not final.

2) Pg 3, 3rd pp. - Must include that this site is a LUC w/ IC and 5-yr reviews.

3) Pg 4. - More details regarding the conduit are needed. For instance, where does the conduit go and does it continue outside Building 20?

4) Pg 5, Top Figure. - The figure south on the toilette area shows two line systems (two dotted lines) which appear to just stop. Please clarify.

5) Pg 6, Table 1. - Explain why so many "J's are included.

6) Pg 8, Interim Remedial Action. - Need to explain in greater detail the Interim Remedial Action and include sampling data.

7) Pg 10, last PP. - Need to indicate that we are referring to the soil at the site and not the entire site. Also clarify that the soil at the site was cleaned up during the IRA to residential standards.

8) Pg 11, last PP. - See comment 7. Also explain what is the difference between an occupational worker and an industrial worker? Is an occupational worker another word for utility or construction worker?

9) Pg 11, last PP - Groundwater is still a risk and needs to be restricted. Therefore, LUC with IC and 5-yr reviews must be included.

Bldg 112

1) Pg 3, 2nd pp. - Delete the words, "and a work plan and report for site closure" since the next sentence addresses the site closure report. Please note the Ocuto Site Closeout Reports are not final.

2) Pg 3, 3rd pp. - Must include that this site is a LUC w/ IC and 5-yr reviews.

3) Pg 4 - The sites need more description. For instance, what condition was the gravel within the drywell? Was it loosely packed providing greater drainage? What did the drywell service? What removal activities were performed at the rooftop? Did the building have any floor or roof drains?

4) Pg 6, Drywell Section. - Again what was the use of the drywell.

5) Pg 6, Table 1. - I noticed the criteria for PCBs was 0.09 ppb. Usually don't we use 1000 ppb or 1 ppm? Also explain the significance of all the "J" values.

6) Pg 9, 1st PP. - When you indicate "contaminated soil" please include where you are referring.

7) Pg 9, 2nd PP. - Why do you change the reporting units from ppb to ppm. Please remain consistent.

8) Pg 9, last PP. - The last sentence is confusing. You recognize that you have groundwater exceedances, but since the constituents which had exceedances in the groundwater were different than those in the soil, it implies it is acceptable. This needs to be discussed further.

9) Pg 10. - Need to include more information on the removal action. What quantity of material was removed, where was it taken from, are there figures showing the excavated areas, where was the material disposed? Provide sampling data and explain what standards you are using in the soil (industrial or residential) and groundwater.

10) Pg 11, 1st PP, last sentence. - Need to explain the baseline risk assessment criteria.

11) Pg 12, last PP. - Need to include LUC and 5-yr reviews.

Bldg 222

1) Pg 3, 2nd pp. - Delete the words, "and a work plan and report for site closure" since the next sentence addresses the site closure report. Please note the Ocuto Site Closeout Reports are not final.

2) Pg 3, 3rd pp. - Must include that this site is a LUC and 5-yr reviews. (Whether ICs are needed still needs to be explained.)

3) Pg 4. - More detail of the site is needed. For instance, is the entomology shop still a concern? Was the pit lined or unlined? Are there any discharge pipes from the building?

4) Pg 7, last PP. - Need more details of the removal (i.e., quantity, location, figures, and sampling data). Also levels of lead and antimony were found at elevated levels. Did the removal address these constituents?

5) Pg 8, last PP. - Need to clarify the site as LUC which include 5-yr reviews.

6) Pg 10 & 11. - Need to explain the baseline risk assessment criteria.

7) Pg 11. Need to clarify the site as LUC which include 5-yr reviews.

Bldg 255

1) Pg 3, 2nd pp. - Delete the words, "and a work plan and report for site closure" since the next sentence addresses the site closure report. Please note the Ocuto Site Closeout Reports are not final.

2) Pg 3, 3rd pp. - Must include that this site is a LUC and 5-yr reviews. (Whether ICs are needed still needs to be explained.)

3) Pg 4. - More details of the drywells are needed. For instance, were any drywells lined? How long was each one used?

4) Pg 7&8. - Also explain the significance of all the "J" values.

5) Pg 8. - The description of the removal action needs additional details (i.e., quantities, location, figures, and sampling data).

6) Pg 9, last PP - Please note, open space has never been recognized as a risk use scenario. The area must be consider industrial.

7) Pg 10, Carcinogenic Risk. - Considering the elevated levels of constituents reported in Table 7, it seems odd that the risk is low. This needs to be explained.

8) Pg 11, 2nd PP. - It is not acceptable to say NFA. LUCs/ICs and 5-yr reviews must be included.

9) Pg 11, last PP. - Same as Comment #8. This section needs editing.

T-9 Area

1) Pg 3, 2nd PP. - Delete the words, "and a work plan and report for site closure" since the next sentence addresses the site closure report. Please note the Ocuto Site Closeout Reports are not final.

2) Pg 3, 3rd PP. - Must include that this site is a LUC and 5-yr reviews. (Whether ICs are needed still needs to be explained.)

3) Pg 4. - Provide great detail as to the historical nature of the site. For instance, how long was the area used, how long was kerosene used to wash the trucks etc.

4) Pg 5, 2nd PP. - It would be helpful to note the depth the bore holes were taken.

5) Pg 6 & 7. - Please explain the significance of all the "J" values.

6) Pg 10. - Clarification is needed regarding the implementation of an Interim Remedial Action and the agreement of a No Further Action proposed plan. As it is written, it is

confusing and implies we selected a NFA decision while requiring and IRA.

7) Pg 11. - The Interim Remedial Action section provided a good summary and included most of the necessary details of the excavation (this information was missing from the other proposed plan summaries). However, the sampling data for the T-9 Area should be included.

8) Pg 12, 2nd PP. - Need to explain the baseline risk assessment criteria.

9) Pg 12. - It must also be clear that spills occurred after the RI (and therefore, after the risk assessment) was performed.

10) Pg 15, last PP. - Need to clarify the site as an industrial area with LUC and 5-yr reviews.

Grace

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

November 15, 2000

MEMORANDUM FOR: Distribution List

FROM: Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/DA-Griffiss
153 Brooks Road
Rome, New York 13441-4105

SUBJECT: **Landfill #6 Proposed Plan for Remedial Action at: Former Griffiss Air Force Base, Rome, New York**

Attached is a Proposed Plan & Fact Sheet for the proposed Remedial Action at the Landfill #6 site, located at the former Griffiss Air Force Base, Rome, NY.

This plan was developed following consultation with the New York State Department of Environmental Conservation and the United States Environmental Protection Agency.

A public review and comment period on the Proposed Plan will run from November 17, 2000 through December 18, 2000. **A Public Meeting is scheduled for Wednesday, December 6, 2000 at 5 PM at the Floyd Town Hall, 8299 Old Floyd Road, Floyd, NY**. The Base Cleanup Team (BCT) will hold an Information Session at the beginning of the Public Meeting to explain the Proposed Plan. The BCT will then receive comments and answer questions from the public. Written comments may be submitted to the AFBCA at the above address, and must be postmarked or received **no later than December 18, 2000.**

If you have questions or wish further information, please feel free to contact my office (315-330-2275) at any time.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

ATTACHMENTS:
1. Distribution List
2. Proposed Plan Landfill #6
3. Fact Sheet: Landfill #6

DISTRIBUTION LIST
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Gaby Atik
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Jack Romagnoli
ABSCOPE Environmental Inc.
One Commercial Drive
Canastota, NY 13032

Fact Sheet

LANDFILL 6 AREA OF CONCERN



Former Griffiss Air Force Base
Rome, New York

November 2000

Summary of Proposed Plan

Public Comment Period November 17, 2000 to December 18, 2000

Background

Griffiss Air Force Base (AFB) is a former United States Air Force (Air Force) installation covering approximately 3,552 acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. In 1987, the United States Environmental Protection Agency (EPA) added Griffiss AFB to the National Priorities List, and in 1990 the Air Force, the New York State Department of Environmental Conservation (NYSDEC), and the EPA entered into a ***Federal Facilities Agreement (FFA)***. In 1993, Griffiss AFB was designated for realignment under the federal Defense Base Closure and Realignment Act and was subsequently deactivated. Before transfer of the property for community redevelopment, the Air Force is required to identify ***Areas of Concern (AOCs)*** on base, conduct a Remedial Investigation (RI), and recommend remedial actions. The public participates in the process and is encouraged to comment on the remedial action proposal.

FFA - an agreement between the EPA, the NYSDEC, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Area of Concern (AOC) - a location where hazardous substances are or may have been placed or may be located.

Landfill 6 AOC Description

Landfill 6 AOC is an approximately 8-acre area located in the southern portion of the former Griffis AFB (see Figure 1). Between 1955 and 1959, hardfill and general refuse was burned on a hillside north and east of the access road forming most of the southern boundary of the site. Remaining waste and burned residue is approximately 5 to 10 feet thick. In the 1980s, fuel-contaminated soils were disposed in the central and southern portions of the site, which were then capped in 1986 with 12 inches of clay and 6 inches of topsoil.

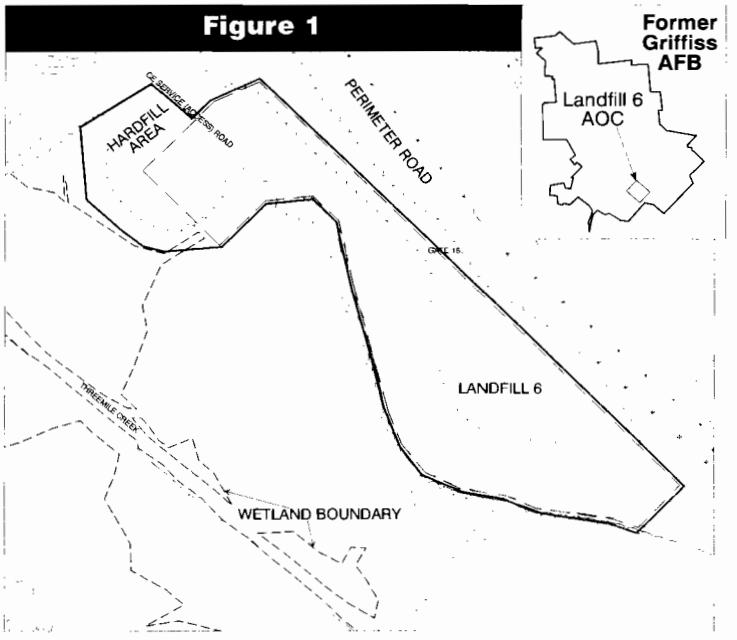
Groundwater and surface water runoff follows the topography, flowing south-southwest across the site to Three Mile Creek.

Summary of Site Activities

A groundwater monitoring well was installed in 1981. Groundwater samples collected in 1982 indicated the presence of phenols, and dissolved chromium, copper and zinc. A passive soil gas survey performed in 1993 indicated the presence of petroleum fuel constituents.

In 1994, an RI was performed. The RI included installation and sampling of six new groundwater monitoring wells, surface soil sampling, and geophysical and passive soil gas surveys. Analysis of groundwater and surface soil samples collected during the RI indicated the presence of various organic compounds, pesticides/PCBs, metals, cyanide, glycols, and petroleum hydrocarbons. In the RI report, concentrations of contaminants were compared to the lowest (most stringent) regulatory standard or guidance value. Numerous compounds in each environmental media exceeded the most stringent regulatory standard or guidance value. The passive soil gas survey indicated the presence of toluene and benzene emissions.

Figure 1



Two significant subsurface anomalies were detected during the RI geophysical survey.

In 1997, during an RI Supplemental Investigation, two test pits were excavated and the geophysical anomalies were identified as steel pipes, I-beams, and scrap metal. Petroleum hydrocarbons were detected in the test pits at about 6 feet below ground surface. A Landfill Cover Investigation performed in 1997 further defined the extent of the existing cover, the size of the landfill, and the landfill boundary.

Summary of Site Risks

A baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants detected in the soils and soil gas during the RI at the Landfill 6 AOC. (Risks due to groundwater will be evaluated in the On-Base Groundwater Feasibility Study.) The results of the risk assessment were considered in the cleanup goal selection process.

The human health risk assessment was conducted to determine whether chemicals detected in the soils/soil gas at the Landfill 6 AOC could pose health risks under the current and proposed future land use if no remediation occurs. The current and future land use designation is open space. Persons who would most likely come into contact with the contaminants include those from various recreational, residential or occupational (landscape worker) populations. Multiple exposure pathways for each type of population group were addressed in the risk assessment.

Exposure Pathways
- Ingestion of surface soil
- Inhalation of airborne chemicals, fugitive dust
- Dermal contact surface soil

Based on the levels of contaminants in the surface and subsurface soils and the results of the baseline risk assessment for soils, Landfill 6 AOC poses no risk to human health.

A risk assessment for ecological receptors at the Landfill 6 AOC, including raccoons, shrews, and American woodcocks, indicated a potential for harmful effects to the shrew and woodcock. There are no federally listed threatened or endangered plant or animal species at the site; however, several state-listed endangered plants and animals have been observed on or in the vicinity of the base.

Preferred Remedial Alternative

EPA regulations require that a remedial action must be protective of human health and the environment, cost effective, and provide permanent solutions and treatment technologies to the maximum extent practicable. The proposed remedial action alternative for the Landfill 6 AOC includes:

- Installation of a low-permeability soil cover over the entire landfill in accordance with 6 NYCRR Part 360 landfill closure and post-closure regulations dated November 26, 1996, to reduce the amount of water infiltration through the landfill;
- Maintenance of the cover and long-term monitoring of the groundwater, surface water, sediment, and biota;
- Monitoring the groundwater and stream environment downgradient of the site to evaluate the effectiveness of the remedy; and
- Implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit inappropriate use of the area and groundwater, and to ensure the soil cover is not damaged and the area is maintained as a landfill.

Any wetlands disturbed during the remedial action will be restored. This remedy is expected to minimize leachate generation, which in turn will reduce the potential for transporting contaminants from the landfill to Three Mile Creek via surface water runoff and groundwater migration.

Additional details on this site and the environmental program are available for review in the administrative record.

Administrative Record
Document file located at 153 Brooks Road, Griffiss Business and Technology Park (315) 330-2275 and Information Repository at Jervis Public Library, Rome, NY (315) 336-4570

Public Meeting
5:00 pm December 6, 2000; Floyd Town Hall, 8299 Old Floyd Road, Rome, NY

Greco

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

NOV 14 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/DA-Griffiss
153 Brooks Road
Rome, NY 13441-4105

Re: *Landfill 6 and Building 775 - Areas of Concern Groundwater Study*

Dear Mr. McDermott:

I have reviewed the report entitled *"Landfill 6 and Building 775 - Areas of Concern Groundwater Study"*, dated August 2000, and provide the following comments:

II. GENERAL COMMENTS

1. The purpose of the Landfill 6 and Building 775 Areas of Concern Groundwater Study was to:

   - Define the vertical and lateral extent of the LF6/B775 trichloroethene plume(s);
   - Determine whether the plume(s) are interconnected or separate; and
   - Obtain sufficient information to propose the proper remedy.

   The Groundwater Study generally fulfills the stated purpose.

2. Monitoring wells LF6VMW-15, 775VMW-23, 775VMW-24 and 775VMW-25 were not discussed in the Final Field Sampling Plan for Landfill 6 and Building 775. Discuss the rationale for the location and screening interval of these wells.

3. Monitoring wells LF6VMW-12R, -13R and 14 appear to be located in the path of the Landfill 6 chlorinated solvent plume. The Groundwater Study states that the Landfill 6 plume has traveled approximately 800 feet horizontally and 80 feet in total depth. Assuming the Landfill 6 plume continues this same downward migration path, a large portion of the plume could travel beneath the screened intervals of these three wells and not be detected. An additional monitoring well should be considered near the existing LF6VMW-12R and screened in the interval between the bottom of the LF6VMW-12R screen and the bedrock.

4. Is there any preliminary data as to when the spill first occurred or how long the contamination has been traveling? It is my understanding that the Air Force has performed various degradation studies in this area. Does any of this information provide insight as to when the contamination occurred and how quickly the plume could reach Three Mile Creek?

II. SPECIFIC COMMENTS

1. **Section 2.2, page 2-5.** The Final Field Sampling Plan states that six new geoprobes will be located (LF6GP-5 through LF6GP-10), if groundwater from LF6VMW-11 is contaminated within 30 feet of the ground surface. Table 3-.1-4 of the Groundwater Study shows chlorinated solvent levels above groundwater ARARs between 10 and 27 feet below ground surface in monitoring well LF6VMW-11; however, no geoprobe samples were collected during this study and no explanation is provided. Discuss this discrepancy between the Final Field Sampling Plan and the Groundwater Study.

2. **Section 3.1, page 3-6.** The text should be revised to state that the concentrations of TCE were higher in the spring 2000 samples in 775VMW-5, -8 and -10. Also, the text states that the concentrations of the compounds in the spring 2000 samples were lower than the 1997 SI samples for 775VMW-9. Table 3-5 should be revised to include the results of the 1997 SI sampling for 775VMW-9.

   The conclusion that the "decreases appear to correspond well with the direction of groundwater flow" cannot be supported. The decreases in 775VMW-2,-4,-6 are small and probably insignificant: a change from 11 ug/L to 6.08 ug/L in 775VMW-2, for example, shows essentially the same concentrations between the two events because the apparent change is well within the experimental error of repeated field measurements with different events, different laboratories, different samplers, etc. Further, because the number of well points in which decreases were noted are few, and only two events can be compared, no trends can be established. The text should be revised.

3. **Section 3.1.** The groundwater elevation measurement for AP2MW-1 appears suspect. Is this consistent with previous records? Likewise the "dry" report for 775MW-2 should be discussed further and the well logs provided. Although only 1 well, TMC - USGS -10, was measured south of Three Mile Creek, the groundwater elevation (259.74') is an indicator that groundwater flows to the Creek. However, the horizontal and vertical directions, as well as variability of groundwater flow, must be fully determined in order to assess impacts and clean-up options.

4. **Section 3.1.** The hydraulic conductivity discussion should be expanded. In addition, it is appropriate to identify the summary Table 3-2 in the text as part of the discussion. Slug tests, in general, do not provide a sufficiently accurate description of hydraulic parameters of the aquifer system. They are single well characteristics. Therefore, include a discussion as to how the slug test results compare in relation to boring or well logs?

5. **Section 3.2.** The conclusion that the decreases appear to correspond well with the direction of groundwater flow, and hence expected plume migration, cannot be supported. The stated conclusion appears to be based on only two points of comparison for one contaminant. Table 3-5 shows the concentrations of cis-DCE decreased notably in LF6MW-2 and -4, but not in other wells, and not for TCE or other contaminants. While the two noted decreases appear significant, the stated interpretation is by no means clear

because of the paucity of data. The text should be revised.

6. **Section 3-2. Pages 3-7.** Since vinyl chloride was also detected in one of the 1997 samples, the discussion of constituents presented should clearly explain that 1997 results were not included and only 2000 were used. In addition, it is noted that contamination to bedrock has occurred. However, there are insufficient data points to assess a trend in concentrations, yet one can claim that some bedrock contamination is occurring. Therefore, this issue needs to be addressed in further detail.

7. **Figure 2-1.** There are significant differences in the inferred direction of groundwater flow in the vicinity of Landfill 6 between the August 1997 groundwater contour map provided in the Final Field Sampling Plan and the May 2000 groundwater contour map provided in the Landfill 6 and Building 775 Areas of Concern Groundwater Study. Additional water level measurements should be taken to evaluate the seasonal variations in groundwater flow, especially considering the possibility of modeling natural attenuation processes for these areas in the future.

8. **Figure 2-1 and 3-1 through 3-4.** Monitoring well 775VMW-22 was located approximately 300 feet northeast of the proposed location in the Final Field Sampling Plan. Include a field adjustment form or explain the rationale for relocating 775VMW-22.

9. **Figures 3-2 and Table 3-5.** Please explain why the some of the highest values of contamination detected as reported in Table 3-5 (e.g., 775VMW-5 @ 160 ug/L) were not the values reported on Figure 3-2 (i.e., 775VMW-5 @ 52 ug/L).

10. **Table 2-3.** Please clarify the terms of "Status," "Open," "Skipped," and "Taken" as identified in Table 2-3's key. Also clarify that the term "QC Type R" as it appears in the table heading.

11. **Vol. II, Section A.** Please elaborate why one field adjustment forms indicates the screen length was changed to 15' yet another field adjustment form using the same rationale change the screen length to 20'.

12. **Vol. II, Section H.** Titles are missing from the last two rows in the tables. Please include this information.

Should you have any questions, please contact me at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Project Manager

cc: J. Greco, NYSDEC

JG

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

November 10, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, New York 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9706955
U.S.T. 220-6
Rome (C), Oneida County

Dear Mr. Rabe:

This is in response to your letter dated September 11, 2000 documenting soil Landfarm activities at W.S.A. Bunkers 904-2 and 925-2.

The laboratory data for the remediated soil indicate the soil meets current soil guidance values. The soil may be used as backfill for subsequent storage tank removal operations at Griffiss AFB.

My records indicate that this site needs further investigation and remediation, as you confirmed in paragraph 1.b. of this letter.

Please advise me as to what your intentions are regarding this matter by **December 30, 2000.**

If you have any questions, feel free to contact me.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco
NFC:ds

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

November 10, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, New York 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9702169
U.S.T. 930-2
Rome (C), Oneida County

Dear Mr. Rabe:

This is in response to your letter dated September 11, 2000 documenting soil Landfarm activities at W.S.A. Bunkers 904-2 and 925-2.

The laboratory data for the remediated soil indicate the soil meets current soil guidance values. The soil may be used as backfill for subsequent storage tank removal operations at Griffiss AFB.

The spill has been closed as "meeting state standards" as of November 10, 2000 and this office is not requiring further remedial action to be performed at this time.

This closure does not alleviate you from liability should any unforeseen problem arise in the future as a result of this spill.

Any monitoring wells in place for this spill should be properly abandoned or maintained to assure groundwater protection.

If you have any questions, feel free to contact me.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco
NFC:ds

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
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John P. Cahill
Commissioner

November 10, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, New York 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9704489
U.S.T. 119-2
Rome (C), Oneida County

Dear Mr. Rabe:

This is in response to your letter dated September 11, 2000 documenting soil Landfarm activities at W.S.A. Bunkers 904-2 and 925-2.

The laboratory data for the remediated soil indicate the soil meets current soil guidance values. The soil may be used as backfill for subsequent storage tank removal operations at Griffiss AFB.

The spill has been closed as "meeting state standards" as of November 10, 2000 and this office is not requiring further remedial action to be performed at this time.

This closure does not alleviate you from liability should any unforeseen problem arise in the future as a result of this spill.

Any monitoring wells in place for this spill should be properly abandoned or maintained to assure groundwater protection.

If you have any questions, feel free to contact me.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco

NFC:ds

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us



John P. Cahill
Commissioner

November 10, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, New York 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9950017
U.S.T. 5920-1/3
Rome (C), Oneida County

Dear Mr. Rabe:

This is in response to your letter dated September 11, 2000 documenting soil Landfarm activities at W.S.A. Bunkers 904-2 and 925-2.

The laboratory data for the remediated soil indicate the soil meets current soil guidance values. The soil may be used as backfill for subsequent storage tank removal operations at Griffiss AFB.

This spill was discovered when I reviewed a tank closure report in July 1999 and unreported contamination was document therein. As far as I know, no remediation has been performed at this site and it still needs investigation.

Please advise me as to what your intentions are regarding this site by **December 30, 2000.**

If you have any questions, feel free to contact me.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco
NFC:ds

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
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John P. Cahill
Commissioner

November 10, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, New York 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9950016
U.S.T. 324-2
Rome (C), Oneida County

Dear Mr. Rabe:

This is in response to your letter dated September 11, 2000 documenting soil Landfarm activities at W.S.A. Bunkers 904-2 and 925-2.

The laboratory data for the remediated soil indicate the soil meets current soil guidance values. The soil may be used as backfill for subsequent storage tank removal operations at Griffiss AFB.

This spill was discovered when I reviewed a tank closure report in July 1999 and unreported contamination was document therein. As far as I know, no remediation has been performed at this site and it still needs investigation.

Please advise me as to what your intentions are regarding this site by **December 30, 2000.**

If you have any questions, feel free to contact me.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco
NFC:ds

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
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John P. Cahill
Commissioner

November 10, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, New York 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9704485
Spill No. 8604235
U.S.T. 823-2
Rome (C), Oneida County

Dear Mr. Rabe:

This is in response to your letter dated September 11, 2000 documenting soil Landfarm activities at W.S.A. Bunkers 904-2 and 925-2.

For the record, again, spill 9704485 is a duplicate of a historical spill 8604235. 9704485 was closed in March of 1999 and all further activities were to be documented against 8604235.

Apparently spill 8604235 was generated due to an U.S.T. failing tightness testing in 1986. This tank was subsequently replaced. When the replacement tank was removed in 1997 contamination was noted and spill 9704485 called in. The 1997 contamination probably is from the 1986 tank which was never investigated or remediated.

The laboratory data for the remediated soil indicate the soil meets current soil guidance values. The soil may be used as backfill for subsequent storage tank removal operations at Griffiss AFB.

This site still needs investigation and remediation.

Please advise me as to what your intentions are regarding this matter by **December 30, 2000.**

If you have any questions, feel free to contact me.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco
NFC:ds

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518) 485-8404
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

NOV - 6 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Draft Final Proposed Plan for Landfill # 6;
Griffiss Air Force Base (ID No. 633006)

The New York State Department of Environmental Conservation (NYSDEC), in conjunction with the The New York State Department of Health (NYSDOH), has reviewed the referenced draft final Proposed Plan and finds it to be acceptable.

This concurrence is predicated upon the agreement reached between our staffs which requires that the sediment samples taken near the banks of the downgradient stream will be further assessed in the Three Mile Creek operable unit.

If you have any questions or comments on this matter, please contact Mr. Sal Ervolina, of my staff, at (518) 457-4349.

Sincerely,

Michael J. O'Toole, Jr.
Director
Division of Environmental Remediation

C: R. Caspe, USEPA
R. Wing/D. Pocze, USEPA-Region II
A. Carlson, NYSDOH
H. Hamel, NYSDOH-Syracuse
D. Sweredoski Reg. 6, Watertown
L. Hansak
S. Dimeo

bc: T. Quinn
S. Ervolina
M. Chen

Griffiss

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

NOV - 6 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/DA-X
Environmental Section
153 Brooks Road
Griffiss Air Force Base, NY 13441-4503

Re: *Proposed Plan for Landfill 6, Draft Final*

Dear Mr. McDermott:

This is to notify you that the U.S. Environmental Protection Agency (EPA) has completed its review of the draft final Proposed Plan, dated September 2000, for Landfill 6 located at the Griffiss AFB, Rome, New York. EPA supports this Proposed Plan for a presumptive remedy of capping, monitoring and institutional controls at LF 6. As the plan is still subject to public comment, we are deferring our final approval of the proposed remedy until we have reviewed any comments submitted by the public, the Air Force's responsiveness summary, and the draft Record of Decision.

The Proposed Plan for LF 6 was developed as a presumptive remedy in accordance with EPA Presumptive Remedy Guidance for Military Landfills, dated April 29, 1996. The plan includes the following: 1) installation and maintenance of an impermeable cover in accordance with current NYS Part 360 landfill closure regulations; 2) implementation of institutional controls in the form of deed restrictions; and 3) joint 5-year reviews of the remedy.

We understand that groundwater contamination which has been discovered to be originating from Landfill 6 will be evaluated and addressed together in a separate comprehensive Proposed Plan for all groundwater and surface water contamination in the area near the landfill. This would include, but not be limited to, groundwater contamination emanating from Building 776 and surface water impacts to Three Mile Creek. Owing to the proximity of the groundwater contaminant plume(s) in the area of Landfill 6 to Three Mile Creek (as mapped by the Air Force), I strongly encourage you to expedite the remedy for groundwater to mitigate impacts to the creek.

If you have any questions regarding the subject of this letter, please contact me or have your staff contact Douglas Pocze of my staff at (212) 637-4432.

Sincerely,

Richard L. Caspe, Director
Emergency and Remedial Response Division

cc: Michael J. O'Toole, Jr, Director
Division of Environmental Remediation, NYSDEC

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
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John P. Cahill
Commissioner

November 2, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

FILE COPY

Dear Mr. McDermott:

Re: 5 RODs for Removal Action Sites

I have briefly reviewed the referenced documents and have found a significant discrepancy from the path agreed to for these sites which must be addressed immediately if our mutual goal of obtaining Records of Decisions (RODs) for these sites is to be met. Specifically, I refer to the omission of Institutional Controls aimed at maintaining the anticipated industrial reuse scenario, as well as the need for groundwater restrictions for at least some of the sites.

You may recall that at the last BRAC Cleanup Team (BCT) meeting held here in Albany, we had agreed that the sites in question (i.e., Bldgs. 20, 112, 222, 255 and Area T-9) were all to follow the format of the September 1999 No Further Action/Institutional Controls RODs issued for five similar sites. If this agreement is no longer acceptable and there is an Air Force desire not to encumber the properties with restrictions, these sites will need to be reassessed for a more stringent (e.g., residential) reuse scenario to ascertain if that is a realistic goal.

In the interim, I will continue my review for other issues so as to delay the process as little as possible. If you have any questions on this matter, please contact me at (518) 457-0549.

Sincerely,

Jonathan Greco

Jonathan Greco
Project Manager
Division of Environmental Remediation

CC: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swerdoski, Reg. 6, Watertown
N. Carrier (Reg. 6, Utica)
L. Hancsak
S. Dimeo
S. Ervolina
M. Chen

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

OCT 27 2000

MEMORANDUM FOR Douglas M. Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

2000

FROM: AFBCA/DA - Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Response to USEPA Comments, Parcel F9 Risk Assessment

Reference: 22 Oct 99 USEPA letter to AFBCA, Draft Report for the Parcel F9 Investigation

1. As you are aware, Griffiss Parcel F9 has been transferred to the Rome City School District and the construction of the new Rome High School is well underway. The AFBCA and the local community appreciate the timely support of the USEPA, NYSDEC and NYSDOH during the environmental evaluation of the property prior to transfer. The expedited approval of the Parcel F9 Environmental Sampling and the Finding of Suitability to Transfer (FOST) by the regulatory agencies enabled the Rome City School District to obtain funding and maintain their construction schedule.

2. The USEPA approved reuse of the property for the new high school based on the Draft Report for the Parcel F9 Investigation, September 1999. The referenced USEPA approval letter, dated October 22, 1999, also provided specific comments on the human health risk assessment. The attached document, Response to Comments, F9 Risk Assessment, is provided as a response to the specific comments and for clarification purposes. The Draft Report for the Parcel F9 Investigation and the Parcel F9 Transfer documents will not be revised.

3. If you have any questions concerning the response to comments, please contact Cathy Jerrard of my environmental staff, at 315-330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment:
Response to USEPA comments, F9 Risk Assessment

cc: Mr. Jonathon Greco, NYSDEC
Mr. Robert M. Pender, USACE-Kansas City District
Ms. Henriette M. Hamel, NYSDOH

Response to EPA Comments of October 22, 1999
Draft Report For The Parcel F9 Investigation

1. Page 5-2. Clarification of the term Child/Adult, Discussion of Groundskeeper Exposure.

Comment

Children/Adult. The term "composite child/adult" requires further clarification in the text. Specifically, the document should indicate that the composite child/adult is composed of 6 years as a child and 24 years as an adult.

Groundskeeper. The statement that the groundskeeper would have a lower exposure than an industrial worker does not reflect the potential for the groundskeeper to be digging in the soil and have a higher exposure than the general industrial worker. Review of the risk/hazard results indicates that the risks are within EPA's risk range and a doubling of the ingestion rate would not significantly change the calculated risk or hazard. It is suggested that this portion of the text should be modified to reflect the potential higher ingestion rate associated with the groundskeeping activity.

Response

The AFBCA acknowledges the term "composite child/adult" may require clarification. The term "composite child/adult" used in this document refers to the exposure of the composite child/adult composed of 6 years as a child and 24 years as an adult. All calculations used in the risk assessment utilized this composite.

The AFBCA concurs that the risks are within EPA's acceptable risk range and a doubling of the ingestion rate would not significantly change the risk or hazard quotient. The text states that the exposures of school workers "are expected to be similar to (or less than) those of commercial/industrial workers." In other words, maintenance worker and groundskeeper exposures would likely be similar in magnitude to commercial/industrial workers while teacher and office worker exposures would likely be less. Although groundskeepers may have greater soil contact when digging into the soil, this activity constitutes only a small portion of their total exposure. Soil contact rates are not expected to be particularly high during most groundskeeping activities such as the maintenance (trimming, watering, fertilizing) of lawns and shrubbery, snow removal, or general cleanup of the property. Thus the long term exposures of groundkeepers would not be substantially greater than the standard worker defaults.

2. Page 5-3. Guidance Manual References.

Comment

The guidance manuals listed in the References and this section fail to include the Risk Assessment Guidance for Superfund, Part D, and the 1992 EPA Guidance on Calculating the 95% Upper Confidence Limit on the Mean (Publication 9285.7-081).

Response

The AFBCA did not specifically use Risk Assessment Guidance for Superfund, Part D guidance and therefore it is not listed as a Reference. The Risk Assessment Guidance for Superfund (RAGS), Part D specifies table formats for Superfund human health risk assessments. Though the appearance of some tables may have been similar to the Part D formats, that guidance was not used, therefore, it was not included in the Reference section.

Publication 9285.7-081, which is titled "Supplemental Guidance to RAGS: Calculating the Concentration Term", is listed in the References (EPA 1992b). The "related EPA guidance" mentioned in Section 5.1.3 refer to that document and other EPA risk assessment guidance documents.

3. Page 5-5. Evaluation of Non-Detects.

Comment

The last sentence regarding the evaluation of non-detects is not clear. Is the meaning of this statement that when all the samples were identified as non-detects, they were eliminated from further consideration?

Response

The discussion in the second paragraph of Section 5.2.4 refers to the handling of non-detects in the calculation of exposure point concentrations of chemicals of potential concern (COPCs) for the quantitative risk estimates. This discussion would not apply to a chemical that was not detected in any samples and, therefore, not a COPC. In cases where the quantitation limit was elevated to a concentration more than twice the highest detected concentrations (so that half the quantitation limit was greater than the highest detected concentration), that result was eliminated and the exposure point concentration was calculated from the results remaining in the data set.

4. Page 5-6. Selection of Chemicals of Potential Concern.

Comment

The statement regarding the exclusion of chemicals of concern based on background should indicate that all "Group A" known human carcinogens were incorporated regardless of the background concentration. This is consistent with recommendations in RAGs-Part A, page 5-23.

It is recommended that further information concerning the TAGMs be included in the document. Specifically, what are the risk levels associated with the calculated TAGMs, what exposure pathways were evaluated, and what is the frequency of update of the document. As indicated in previous memos, the TAGMs are not typically used by EPA in its evaluation of COPCs and this further clarification is needed to address potential risk concerns.

Response

The AFBCA concurs that all Group A carcinogens were included as COPCs regardless of the background concentration, as recommended in RAGS Part A, page 5-23.

Risk-based TAGM values are either based on soil ingestion in a residential setting or on protection of groundwater (based on a conservative water partitioning model combined with New York State drinking water standards). For soil ingestion, the target risk levels are a cancer risk of 1×10^{-6} for Group A or B carcinogens, 1×10^{-5} for Group C carcinogens, or a hazard index of 1.0 for noncancer effects. This is explained in TAGM 4046, which was issued by the New York State Department of Environmental Conservation in 1994 (NYSDEC 1994 in the Reference section). Generally, the TAGM values are as stringent or more stringent than health-protective concentrations based on direct contact residential exposure assumptions, and their use for screening eliminated fewer chemicals from the list of COPCs.

5. Page 5-7. Evaluation of Hotspots, Grouping of Exposure Areas.

Comment

The discussion on the top of page 5-7 is confusing. Was the hot-spot sample excluded from further analysis and the remaining chemicals combined to calculate a 95% UCL? A clearer explanation is required regarding how the hot spots were evaluated versus the chemicals found in the remainder of the site.

The discussion of the grouping of exposure areas requires further clarification regarding how this grouping reflects the potential for individuals to be exposed. Does this grouping account for the specific activities and land-uses where an individual may be exposed?

Response

The AFBCA in an effort to avoid confusion to the discussion on the top of page 5-7 offers the following clarification. The paragraph at the top of the page is a general description of the contamination found which points out that there were a few hot spots with elevated concentrations, but that outside of the hot spots the concentrations were quite low and similar throughout the areas sampled. Section 5.3.3.1 on page 5-9 describes the methods used to calculate the exposure point concentrations for the three exposure areas evaluated. This section refers the reader to the calculation spreadsheets in Appendix D, which list the samples that were included in the data set and the values used in the calculations of the UCLs. The hot spot concentrations were included in the data sets used to calculate the exposure point concentrations for the three exposure areas evaluated. These three areas are large enough to credibly represent potential long-term exposures.

The AFBCA made no specific assumptions in the risk assessment about locations of specific activities or land uses within the F9 Parcel. Exposure was considered to be equally likely anywhere within the parcel, including the large unsampled area east of the AOIs. It is very unlikely that future students will spend time exclusively in any one location (such as a hot spot) or in one small area over an extended period. It is much more likely and reasonable to assume that they will play in a number of different areas ranging across the schoolyard. For this reason, the sampled locations were divided into three exposure areas of a size that would reasonably approximate a schoolyard around a hypothetical school. Outside of localized hot spots, which were found in the larger AOIs, the contaminant levels in the soils were not drastically different from area to area. Thus the AOIs were grouped together primarily on the basis of size and proximity.

6. Page 5-8. Grass Cover as an Institutional Control.

Comment

The statement that grass cover would protect individuals from potential wind erosion assumes an institutional control. Since the NCP requires that the baseline assessments be developed in the absence of institutional controls or remediation this statement is inconsistent with the goals of a baseline risk assessment.

Response

The AFBCA neither in the statement cited nor in the risk assessment assumed or intended any institutional controls. However, it is likely that there will be vegetation or pavement covering the soil surface. The statement says that grass cover on soil would substantially reduce wind erosion. As explained in the last statement, the risk assessment conservatively assumes that soil will be bare and subject to wind erosion.

7. Page 5-9. Calculation of the UCL for Small Data Sets.

Comment

The discussion of the 95% UCL is not consistent with EPA's guidance. For example, Table 5-10 indicates that a 95% UCL was calculated in the Central Exposure Area for thallium and carbazole while EPA's guidance indicates a minimum of 10 samples are required to calculate a 95% UCL. It is recommended that for these chemicals, the maximum concentration be used in the assessment although it will not significantly change the calculated risks.

Response

The AFBCA believes the exposure point concentrations were calculated in a manner that is consistent with EPA guidance (EPA 1992b in the References). The guidance states that Superfund data show that compared to larger data sets, data sets with fewer than 10 samples provide poorer estimates of the mean concentration, meaning that the difference between the 95% UCL and the true mean is larger. In other words, the UCL from a small data set will tend to be higher relative to the true mean, which implies that the resulting calculation will be more conservative. The AFBCA did not think that it was best to default to the maximum concentration if it was higher than the UCL, since that maximum concentration would result in a poorer estimate of the mean and a less accurate result in the calculation of the exposure point concentration. The guidance cited (EPA 1992b) and RAGS Part A do recommend that the maximum value should be used as the exposure point concentration if the calculated UCL is greater than the maximum value detected. This was done in one case (for Aroclor 1254 in the Northern Exposure Area). The AFBCA does not believe that using the maximum value will significantly change the risk assessment.

8. Page 5-11. Discussion of Child Exposure Frequency.

Comment

The exposure frequency for the child at the school is not clear. If one assumes that a child is in school from September through June, a total of 10 months at 20 days/month the total number of days is 200 days. Subtracting a week for spring break and winter vacation would yield a total of 190 days. Most summer sessions run 6 weeks for a total of an additional 30

days. These assumptions consider that the child would not attend any weekend activities which may also increase the frequency of exposure. It is suggested that more detailed description of the assumptions used in determining the exposure frequency be included.

Response

The AFBCA believes that 200 days per year is sufficient to reflect the long-term reasonable maximum exposure for a student. As the risk assessment explains, the exposure values were selected to reflect the long-term reasonable maximum exposure for each receptor group, rather than worst-case estimates that would not likely be sustained over the long term. The exposure frequency of 200 days per year assumed for children in school is 20 days more than the standard school year of 180 days per year, recognizing the possibility that children may spend some days during the summer break at the school site. The AFBCA concurs that it is conceivable that some children may be on the school site more than 200 days per year in a single year or even over a few years. In the example cited, a child attending a six-week summer session in addition to the regular school term could spend approximately 210 days at the school (5% more than the 200 assumed) if he or she had perfect attendance. However, it is extremely unlikely that any child would attend summer school at the same school every year for eight years of elementary school or four years of high school. The 200 days per year is sufficient to account for a student who attends summer school in over half of their school career (6 years) and an overestimate for a student for who would likely be absent or never attend summer school.

9. Page 5-12. Construction Worker Risk, Dermal Absorption Fractions.

Comment

As we discussed, I ran the calculations to evaluate the potential risks to the construction worker at the site. Based on the calculations summarized in the attached spreadsheet the risks to the construction worker are within EPA's risk range.

The dermal absorption fraction for PCBs should be 14% based on the Wester study summarized in the USEPA document "PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures" published in September 1996. The recommended dermal absorption value for cadmium is 0.001 based on studies by Wester et al. in 1992 as summarized in USEPA 1992.

Response

The AFBCA notes and concurs that the potential risks to the construction worker at the site are within EPA's risk range.

The dermal absorption fractions used in the risk assessment (6% for PCBs; 1% for cadmium) are the upper ends of the ranges recommended in EPA's *Dermal Exposure Principles and Applications (*EPA 1992c in the References to the risk assessment). The USEPA document "PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures" published in September 1996 was in draft format when this document was prepared. The AFBCA believes sound professional judgement was used in selecting a dermal absorption factor of 6% and that changing the absorption factor to 14% would change the resulting risk estimate only slightly and the conclusions would not change.

10. Page 5-14. Description of the term "Noncarcinogen."

Comment

The description of the non-carcinogenic term is incorrect since several chemicals, i.e., arsenic and PCBs, have both carcinogenic and non-carcinogenic health effects. This statement should be modified.

Response

The AFBCA concurs that this statement warrants clarification. The text should state "The term noncarcinogens as used in this risk assessment refers to chemicals for which the carcinogenic evidence is negative or insufficient." By either definition, arsenic and PCBs are not considered to be noncarcinogens; rather they are carcinogens that also cause noncarcinogenic health effects. The AFBCA did evaluate the carcinogenic and noncarcinogenic effects in the risk assessment.

11. Page 5-15. Discussion of Carcinogenicity Weight-of-Evidence Groups D and E.

Comment

The discussion of Group D and E carcinogens is incorrect. A group D carcinogen classification indicates that adequate information is not available to determine that the chemical is or is not a carcinogen in humans. The classification of a non-human carcinogen is based on significant testing of the chemical.

Response

The AFBCA explanation of Group D and E weight-of-evidence classifications in the risk assessment is a shorter simplified version of EPA's longer explanation. The simplified version is based on the prior definition of the term noncarcinogens, as used in the risk assessment, which appears in the first paragraph of Section 5.4.1.1 a the bottom of Page 5-14 (see response to comment 10 above).

12. Page 5-18. Toxicity Discussions and EPA Guidance.

Comment

At the top of the page, the text indicates that the cancer slope factor and Weight of Evidence classification can be combined to predict the potential site of cancer. This is inconsistent with EPA's 1986, 1992, and 1997 Cancer Guidelines and the text should be modified.

The statements regarding the carcinogenic effects of PCBs are inconsistent with the USEPA's document title "PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures" where based on the weathering and environmental changes in PCBs a cancer slope factor is used for total PCBs. In addition, based on the Brunner et al. study, all of the PCBs demonstrated an increased incidence in the animals tested.

Response

The text at the top of the page lists the items found in the toxicity tables (Tables 5-17 and 5-18 show cancer toxicity data). The type of cancer listed for each COPC is taken from the critical study or studies from which the SF was derived. The information in the table is consistent with EPA guidance (See Chapter 7 of RAGS Part A).

The AFBCA does not believe the statements are inconsistent with EPA documents on PCBs. The following is provided for clarification. The text says that studies show that less chlorinated mixtures have lower carcinogenic potencies than more highly chlorinated mixtures. The intent is not to say that less chlorinated PCBs have no carcinogenic potential. Although exposures and cancer risks were estimated separately for Aroclor 1254 and 1260 in the risk assessment, the same cancer SF for PCBs in soil from IRIS was applied to both mixtures. The estimated total cancer risk associated with PCBs is equal to the sum of the risks from the two Aroclor mixtures. As an example, for a worker in the Northern Exposure Area, adding the cancer risks from Aroclor 1254 (3.9×10^{-7} at a soil exposure point concentration of 1.03 mg/kg) and Aroclor 1260 (1.5×10^{-7} at a soil exposure point concentration of 0.41 mg/kg) gives a cancer risk of 5.4×10^{-7} at a PCB exposure point concentration of 1.44 mg/kg.

13. Page 5-12. Risks from Exposures at Multiple Locations.

Comment

It is unclear that the assessment has addressed the potential that an individual may be exposed to multiple locations i.e., the Northern, Central, or Southern area. Based on combining the risks from these areas it appears that the risks and hazards will not exceed EPA's risk range but it would be helpful to discuss this in the risk characterization section.

Response

The AFBCA concurs that when combining the risks from these areas the risks and hazards will not exceed EPA's risk range. The high-end exposure assumptions used in the quantitative assessment are based on the assumption that all of an individual's exposure will occur in one exposure area. The last sentence of Section 5.5.3 on page 5-21 explains that "The estimated risks for each area should be considered separately since the high-end exposure input values used in the calculations are based on the assumption of potential exposure only in the area being evaluated, which precludes similar exposure in other areas." If exposures over multiple exposure areas were to be considered, this total potential exposure would have to be divided in some way among the areas, reducing the estimated exposure in each area. The estimated risks from exposure to multiple areas would fall somewhere between the highest and lowest risks that were estimated for the individual areas.

14. Page 5-26. Estimates of Risks.

Comment

The conclusion that the risks are likely overestimates is not fully descriptive of the information used in this assessment. As discussed on page 5-29, since there are a number of chemicals lacking toxicity information it is possible that the risks are underestimates based on the lack of data for these chemicals. It is suggested that the statement be modified to reflect the wide array of data.

Response

The text on page 5-26 states that the assumptions used in the risk assessment may lead to underestimation or overestimation of the true risk. The sections that follow describe various sources of uncertainty, and the likely effects of the approach or assumptions used on the

resulting risk estimates. As stated on page 5-29, due to the lack of toxicity values for some chemicals, the potential risks from exposure to those chemicals could be underestimated. But in most cases, conservative assumptions have been made to compensate for uncertainties to ensure that the estimated risks are more likely to be higher rather than lower than the true risks.

15. Page 5-27. Clarification of the 30-Year Residential Exposure.

Comment

The exposure duration for the adult resident is 24 years as an adult and 6 years as a child, not 30 years as an adult as suggested in the sentence.

Response

The AFBCA concurs and the phrase "up to 30 years for the adult resident" should read "up to the 30 years assumed for the composite child/adult resident".

16. Table F-3-1b. Inhalation Reference Dose for Chlordane.

Comment

The Reference Concentration for chlordane is 7 x 10E-4 which is equivalent to an inhalation Reference Dose of 2.3 E-05. This does not change the risk calculations significantly, but is mentioned for consistency with EPA's approach.

Response

The AFBCA concurs that either inhalation Reference Dose would not significantly change the risk calculations. However, to provide an explanation of values used by AFBCA the following discussion is provided. The inhalation reference concentration (RfC) listed for chlordane in IRIS, 7×10^{-4} mg/m^3, which converts to an inhalation reference dose (RfD) of 2×10^{-4} mg/kg-day. This value is listed in Table 5-15, Page 5-50 of the risk assessment. Table 5-15 also lists IRIS as the source of the RfC, and provides the equation for the conversion in footnote (1).

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
Bureau of Habitat, Room 576
50 Wolf Road, Albany, New York 12233-4756
Phone: (518) 457-6178 FAX: (518) 485-8424

John P. Cahill
Commissioner

MEMORANDUM

TO: Jonathan Greco, DER Bureau of Eastern Remedial Action

FROM: Christina Dowd, DFWMR Hazardous Waste Site Evaluation Unit

RE: Griffiss Air Force Base, ID# 6-33-006
Letter from Michael McDermott to Doug Pocze dated 17 October 2000 regarding Threemile Creek Feasibility Study Addendum

DATE: October 27, 2000

I reviewed the document(s) referenced above. In addition to your draft comments, I have the following comments.

1. What will be the basis for deciding what is "acceptable" sediment quality?

2. There need to be some borings or samples at depth greater than 2 feet if we are to use a depth to define the area to be remediated. Even with restoration of the existing creek contours after excavation, there is a concern for contaminants that may leach through the material placed during restoration and re-contaminate the surface sediments. The high levels of PAHs are of particular concern as there may be NAPL in deeper sediments.

3. In regard to Landfill 6, we have now agreed to consider the wetland area as part of the Threemile Creek AOC. The wetland area adjacent to the creek contains dredge spoil piles from past creek dredging. This supplemental sampling plan should include sampling of the wetland area and spoil piles so that a decision can be made on whether remediation is needed. In particular, the samples need to be analyzed for dioxins and furans.

If you have any questions or comments, please call me at (518) 457-9278.

cc: S. Sanford (PC, RK, ET)
A. Schiavone

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

OCTOBER 26, 2000

MEMORANDUM FOR SEE DISTRIBUTION LIST

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Submittal – Draft Primary Document – Draft Proposed Plans for Five (5) Areas Of Concern

1. Enclosed please find the draft Proposed Plans for Area Of Concern (AOC) sites Building 20 (SS-23), Building 112 (SS-08), Building 222 (DP-22), Building 255 (DP-13) and T-9 (SS-25).

2. If you have any questions, please contact Mike Wojnas, 315-330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachments:
Draft Proposed Plan for Five AOCs

DISTRIBUTION:

Ms. Lynn Hancsak
HQ AFBCA/DA- Env Section
4th Floor
1400 Key Blvd
Arlington VA 22209-2802 (2 copy)

Mr. Doug Pocze
USEPA - Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866 (2 copies)

Mr. Sal Ervolina, Director
Mr. Jonathan Greco, Project Manager
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010 (2 copies)

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

JG, P/S let me know what's being said in this letter. Thx MC 10/24/00

OCT 2 0 2000

MEMORANDUM FOR SEE DISTRIBUTION LIST

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Draft Areas of Concern Long Term Monitoring Work Plan Addendum

1. Enclosed please find an addendum to the draft Areas of Concern Long Term Monitoring Work Plan dated July 2000 that was forwarded to your office on August 2, 2000. This addendum addresses Area of Concern site SS-46, Glycol Storage /Use Areas – Basewide. Please insert this section into the draft work plan.

2. Your review and comment on this addendum is also requested.

3. If you have any questions, please contact Mike Wojnas, 315-330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachments:
Addendum to Draft LTM Work Plan

JG

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

OCT 18 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA//DA - Griffiss
153 Brooks Road
Rome, NY 13441-4105

Re: Draft Supplemental Study Report Tank Farms 1 & 3

Dear Mr. McDermott:

I have reviewed the Draft Supplemental Study Report - Tank Farms 1 & 3, dated September 2000, and have provided the following comments. Please review these comments and provide either an addendum to the report or a revised document.

General Site Comments

1. Certain assumptions and recommendations made in the report are premature at this juncture. For instance, the recommendation of soil removal and land farming may not be appropriate if the quantity of soil to be removed is significantly increased. In addition, during the previous Air Force Peer Review meeting funding of the land farm operation was in question thereby making the land farming alternative questionable. As another example of a premature assumption, previous rounds of groundwater monitoring have been contradictory; therefore, the recommendation that attenuation is working and proposing Long Term Monitoring is also questionable at this time. Remedies and alternatives can be discussed once agreement is reached upon the extent of contamination.

2. During the test pitting operation, soil contamination was observed not only by myself, but by members of NYSDEC and the Air Force. However, the report does not identify these areas for removal. Furthermore, the soil boring samples obtained in almost identical areas as the test pits indicate no soil contamination. In addition, some of the borings logs indicate "petroleum odors," but have a "0" reading for organic vapors (e.g., TF3SB-54). These discrepancies raises various concerns. I recommend that all test pitting areas should be identified for removal and future measures to correct contradictory data must be developed since this issue has been a reoccurring problem not only for this site, but at other sites at Griffiss (e.g., FPTA).

3. As we have seen at other petroleum sites at Griffiss, constituents which are not regulated by the NYSDEC Spills Program have been found, most notably the Apron area and the discovery of dichlorobenzene. Therefore, include in future sampling events several samples for full organic and semi-organic constituent analysis.

4. Please explain how the downgradient plume boundary was established. In one figure (e.g., Figure 5-2) the plume appears to cross Brooks Road, but stop short of the test borings, specifically test borings TF3TW-88 - 95. This distance between the up gradient detection of contamination and these wells is a large distance and greater delineation of the downgradient boundary is necessary prior to any LTM.

5. Do any storm water sewers exist beneath Brooks Road and, if so, is it possible that these storm sewers are acting as a drainage curtain for groundwater contamination?

6. There appears to be a number of groundwater samples with detected values which were not included within your plume delineation because of "matrix effect" (e.g., TF3VTW-54). Please include all such samples in your assessment.

7. Boring logs do not indicate when contact is made with the groundwater table. All boring logs should include such designation.

8. In Table 5-2 (page 5-7), please specify the qualifier "P".

9. Pleas explain why the laboratory's analysis of the samples are not included and a transcribed AFCEE data analysis is included instead.

Should you have any questions, please contact me at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Project Manager

cc: J. Greco, NYSDEC

JG

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

2000 17 OCT 2000

MEMORANDUM FOR Mr. Douglas Pocze
USEPA - Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

Mr. Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome NY 13441-4105

SUBJECT: Response to Comments - Draft Closure Certification Report – 4 Areas of Concern, Griffiss AFB

1. Enclosed please find the responses to comments on the *Draft Closure Certification Report* dated February 2000 for the interim removal actions performed at the Buildings 20, 112, 222, and 255 Areas of Concern.

2. We would appreciate your review and your concurrence that the responses adequately address your concerns by October 30, 2000.

3. If you have any questions, please contact Michael Wojnas at (315) 330-2275.

FOR MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachments:
Responses to Comments

cc:
J. Wojnas, USACE, NY (w/o attach)

RESPONSE TO COMMENTS FROM USEPA & NYSDEC
DRAFT CLOSURE CERTIFICATION REPORT
INTERIM REMEDIAL ACTION @ BLDGS. 20, 112, 222 & 255
FORMER GRIFFISS AIR FORCE BASE, NEW YORK
CONTRACT NO. DACA41-97-C-8001

Response to United States Environmental Protection Agency Comments:

1.0 General Comments

1. Reference to historical documentation of activities at Buildings 20, 112, 222 and 255 (Draft-Final Remedial Investigation dated December 1996) as well as reference to the Work Plan will be added to the text of the final Closure Report.

2. All confirmatory sample results were compared against project cleanup goals and NYSDEC TAGM values at the time of making determinations on whether excavation activities should proceed or cease at each individual location. In coordination with AFBCA, USACE and environmental regulator personnel, determinations were made on the most appropriate cleanup value which should be utilized for comparing against confirmatory sample results from each location and whether subsequently excavation activities needed to continue or could stop. A more detailed explanation will be provided at the beginning of the text in the final Closure Report and will include topics such as consideration of historically elevated metal background concentrations in the local soil.

3. A laboratory quality control report was prepared by the Contractor's laboratory and a copy of this report will be added to the final Closure Report. Data validation is currently being performed by a party independent of the Contractor's laboratory and the findings of this data validation process will be added to the final Closure Report. Quality assurance testing of the QA samples was performed by the U. S. Army Corps of Engineers Missouri River Division Laboratory. A summary report of the Quality Assurance Test Results was also prepared by the MRD Laboratory. After the Corps of Engineers completes their comparison of the Contractor's laboratory raw data to the Quality Assurance Test Results, a Quality Assurance Report will be prepared and this report will be added to the final Closure Report. QC sample analytical data (including MS/MSD, field duplicates, trip blanks, and rinsate blanks samples) are included with the laboratory data provided in the Closure Report. The individual sample number for each of these QC samples are identified on the individual Chain of Custody forms and they will also be shown on a QC sample number summary table that will be added to the text of the final Closure Report.

4. A section detailing any deviations from the approved Work Plan will be added to the text of the final Closure Report. This section will include the corrective measures utilized to mitigate each deviation.

5. The analytical data summary tables in Appendix 1 do contain values that are background for metals under the "State Recommended Cleanup Level" column. A note will be added to the tables in the final Closure Report to reference the Draft-Final Remedial Investigation dated December 1996 as the origin of these background levels.

6. The drawings will be revised in the final Closure Report to clarify the excavated areas at each work site.

7. A figure detailing the locations of Buildings 20, 112, 222 and 255 in relation to the entire Base will be added to the final Closure Report.

2.0 Specific Comments

1. The sample date of 7/13/98 indicated in Table 2-1 for the base (and south wall) samples at Building 255 is not the latest dated sample. Confirmatory grab samples of the Building 255 base (and south wall) were taken on 7/30/98. The laboratory results of the 7/30/98 samples are included in the appendices under the 7/30/98 laboratory results. Table 2-1 will be corrected in the final Closure Report to indicate the 7/30/98 Building 255 base (and south wall) sample results. Also, the text in the final Closure Report will be changed to indicate that arsenic and lead were present, at concentrations exceeding the guidance values (although they were not constituents of concern).

2. The text in the final Closure Report will be revised to indicate that a confirmatory sample was taken on the re-excavated east sidewall of the Building 222 excavation. Also, the text in the final Closure Report will be revised to indicate that barium, cadmium, mercury, arsenic, beryllium, copper, thallium and silver were present at concentrations exceeding the guidance values (although they were not constituents of concern).

3. The text in the final Closure Report will be changed to include the frequency of collection for the equipment rinsate blank samples that occurred throughout the project.

4. The sample date of 7/28/98 indicated in Table 3-1 for the east sidewall sample at Building 222 is not the latest dated sample. A confirmatory sample of the re-excavated sidewall at Building 222 was taken on 8/13/98. The laboratory results of the 8/13/98 sample are included in the appendices under the 8/13/98 laboratory results. This data indicates that mercury was recorded at < 0.30 mg/kg which was below cleanup levels. Table 3-1 in the final Closure Report will be changed to indicate this information.

5. The existing site plan for Building 112 will be corrected in the final Closure Report to accurately reflect the individual work sites at Building 112.

Response to New York State Department of Environmental Conservation Comments:

General Comments

1. Additional tables and maps will be included in the final Closure Report which cover the following information:

   a. The quantity of soil excavated.

   b. The volume of the stockpiles and the number of samples used to characterize each stockpile.

   c. The volume of soils sent off-site as hazardous/TSCA waste and the volume of soils sent off-site as solid waste.

   d. Depiction of the final excavations in the horizontal and vertical planes with sample locations indicated.

   e. Summary of the test results for the post-excavation samples and the stockpile samples.

2. See response to U. S. E. P. A. general comment # 3 regarding laboratory data validation and quality assurance (EPA quality control Level III was applied to the soil, surface and water sample data). Level III + will be achieved upon completion of the U. S. Army Corps of Engineers MRD Laboratory's Quality Assurance Report.

Specific Comments

Bldg. 255:

1. Acknowledged that there are no specific comments.

Bldg. 20:

1. The comment regarding handling of waste material on future projects is acknowledged.

2. Although sample GAFB 20 CE 1342H is classified as a soil, the laboratory results reported in ug/l may possibly be due to the percent solids value recorded for this particular sample. We will confirm with the Contractor/Laboratory as to the reason why the ug/l units were utilized with these sample results and provide the confirmed explanation in the text of the final Closure Report.

3. A copy of the 8/4/99 Bldg. 20 rinsate sample test results will be included in the final Closure Report.

Bldg. 222:

1. The comment regarding segregation of waste piles on future projects is acknowledged.

Bldg. 112:

1. The requests made in the general comments will be applied to the write-up for this site in the final Closure Report.

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

October 17, 2000

2 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, New York 13441-4105

Attention: Mr. Mark Rabe

Re: Landfarm Request-Alert Apron: Biocells G, I, J, K, L, and F
Spill No. 9702173
AST-009-02
Rome (C), Oneida County

Dear Mr. Rabe:

This is in response to your letter dated July 27, 2000.

From the data submitted, the soil in Bio-piles G, I, J, K, L, and F appear to have been remediated and may be used as backfill material for planned Pumphouse 5 and other "onsite" storage tank removals at Griffiss AFB.

My records for this spill indicate that a ground water investigation is still required. What is the status of this?

Please submit a written response by **December 15, 2000.**

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco
NFC:ds

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

17 OCT 2000

MEMORANDUM FOR Mr. Doug Pocze
USEPA Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

Mr. Sal Ervolina, Director/
Mr. Jonathan Greco, Project Manager
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Three Mile Creek Feasibility Study Addendum

1. In reference to the Three Mile Creek Feasibility Study Addendum dated March 2000 and USEPA and NYSDEC comments received on June 1, 2000 and June 19, 2000 respectively, I would like to propose the following in order to alleviate concerns over the lack of confirmatory sampling after the proposed remedial actions are completed.

a. Collect 36 additional sediment samples along the on base portion of Three Mile Creek as indicated on the attached drawing. This would include 12 new sample locations which would result in an overall average sample location spacing of 250' apart. Also, in all but two locations, a sample will be collected at a depth of 2'.
b. The results of the additional samples in conjunction with the Remedial Investigation sampling results will be reviewed to determine the depth of sediment removal required. If the 2' deep sample results at a location is unacceptable, an additional sample will be taken. Once a removal depth is agreed upon, the sample results at that depth will be used as a confirmatory sample. An example of this would be if the 2' depth sample results at a location is acceptable, the removal will be to 2' and the sample results will be documented as a confirmatory sample.

2. Request your concurrence that this would alleviate your concerns.

3. If you have any questions, please contact Mike Wojnas, 315-330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachments:
Sample Location Map

cc:
L.Hansack, AFBDA (w/Atch)
Ron Johnson, COE, KC (w/Atch)
Mr. Charles Merckel, USF&W (w/Atch)

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518)
Website: www.dec.state.ny.us

FILE COPY

John P. Cahill
Commissioner

October 16, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Tank Farms 1 & 3Supplemental Study Report

I have reviewed the referenced document and offer the following:

1. Reviews of several boring logs indicate that Figures 5-1 and 5-2 are incomplete; i.e., several of the logs show evidence of contamination, yet the borings are not highlighted in either red or blue (e.g., check the logs for borings 43, 44, 45, 46, 49, etc.). Please explain how it was determined that these borings did not exhibit sufficient contamination to warrant remediation and/or inclusion in the mapped area of groundwater contamination.

2. General: Were all monitoring wells sampled with bailers, or were some sampled with submersible pumps? If the later is the case, please provide a comparison between "pumped" wells versus nearby bailed wells.

3. General: Neal Carrier (Region 6, Spills Program) and myself were present when the three test pits were dug and my recollection is that each pit revealed significant contamination (see page 1-13, bottom of page: *"...PID readings generally exceeded 100 ppm."*), yet only one of the locations coincides with an area targeted for soil removal. Please explain.

4. Please indicate where the nearest downgradient and side-gradient storm sewer pipelines are.

5. Please provide the original laboratory "Form 1" for each analysis.

6. Please provide Tentatively Identified Compounds in the next submittal.

7. A quick check of Appendix C indicates that there are several instances in which the data summary tables in the main body of the report do not correspond to the *"AFCEE Organic Analysis Data Sheet 2*

Results"; for example, please check the Appendix C semi-volatile results for TF3T4711AA, TF3T4700AE, TF3T8711AA, TF3T8312AA, TF3T8319AA, TF3T8219AA, TF3T7810AA, TF3T7910AA, TF3T8019AA and TF3T8010AA: in each of these instances, the data has been rejected by the QA/QC reviewer, yet this is not reflected in the tables in the body of the text. Please review all the data to see if this is an isolated instance, or something that is more pervasive. Please correct the tables to reflect the quality review.

8. Section 5.2: How was it determined that excavation was the most appropriate way to deal with the soil contamination at the site? Is the determination likely to change in light of the fact that the amount of soil may be quite a bit higher than is currently thought (please see comments 1 and three, above)?

9. Section 5.2: It is my understanding that the Air Force is no longer funding the landfarm operation. If this is the case, how is it to be selected?

10. Section 5.3: Was any information collected which supports the selection of "Long Term Monitoring" of the groundwater? Is "Long Term Monitoring" synonymous with Monitored Natural Attenuation? If so, have the criteria for its selection been met?

11. Section 5.3: there is reference in the document that there is already an "...apparent attenuation of the petroleum plume..." currently in progress: how was this determined in light of several previous studies which yielded findings of little or no contamination, and recommendations for no further action?

12. Section 5.3: I believe that enough saturated soils contamination/groundwater contamination has been observed to warrant much greater consideration of active remedial measures (i.e., product removal via bio-slurping, soil vapor extraction, etc.). The entirety of the site (i.e., both soils and groundwater) must have an Engineering Evaluation/Cost Analysis (EE/CA) performed to support the final action.

13. General: Prior to the performance of an EE/CA, groundwater flow must be definitively determined.

14. Table 5-3: This table, as well as others, are caveated with a footnote regarding the interpretation of low-level detections of certain carcinogenic compounds; i.e.: *"When the guidance value or standard is below the AFCEE Reporting Limit (RL), which is twice the MDL, achieving the RL is considered acceptable for meeting the guidance value or standard."* This statement appears to be a misinterpretation of the STARS guidance document, and several issues must be clarified which relate to it:

    a. The STARS guidance document does contain a very similar statement, i.e.: *"When the guidance value or standard is below the detection limit, achieving the detection limit will be considered acceptable for meeting the guidance value or standard."*; however, the apparent interpretati being used by your consultant is incorrect in that they are replacing the guidance value/st with the Reporting Limit, as opposed to viewing the statement as a worst case laborator benchmark. In short, the referenced statement only comes into play when determini acceptability of non-detect data; i.e., non-detect data would not be viewed as acce the laboratory had minimally attained the detection levels depicted in the guida instances a laboratory is able to positively identify compounds well-below th acceptable detection level, and these reported values must be used when cc the STARS guidance.

    b. Notwithstanding the above, a review of table 5-3 reveals an inconsi aforementioned footnote (i.e., *"When the guidance value or star Reporting Limit (RL), which is twice the MDL, achieving the RL . meeting the guidance value or standard."*) in that the RL actually us current data, but rather, it has been taken from the STARS guidance. P

c. The same footnote does not appear to hold true when a review is made of the AFCEE Analysis Data Sheet 2 for various sites (e.g., TF3MW103AA) in that the AFCEE Reporting Limit RL or PQL) is not two times the MDL. Please explain and correct.

d. It should be noted that the STARS guidance provides the regulated community with a process to characterize soils at a petroleum spill site, and the application of any portion of this guidance to the analysis of groundwater or the interpretation of groundwater data is inappropriate.

e. Finally, please correct the tables and text to reflect that several of the SVOCs with very low guidance values (i.e., .002 ug/l) have been positively detected above that level in groundwater.

15. General: Please include the depth to groundwater on the boring logs.

If you have any questions on this matter, please contact me at (518) 457-0549.

Sincerely,

Jonathan Greco

Jonathan Greco
Project Manager
Division of Environmental
Remediation

CC: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swerdoski, Reg. 6, Watertown
N. Carrier (Reg. 6, Utica)
L. Hancsak
S. Dimeo
S. Ervolina
M. Chen

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
Bureau of Habitat, Room 576
50 Wolf Road, Albany, New York 12233-4756
Phone: (518) 457-6178 • **FAX:** (518) 485-8424
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

MEMORANDUM

TO: Jonathan Greco, DER Bureau of Eastern Remedial Action Christina

FROM: Christina Dowd, DFWMR Hazardous Waste Site Evaluation Unit

RE: Griffiss Air Force Base , ID# 6-33-006
Draft Proposed Plan for Landfill 6 dated September 2000 and prepared by the Air Force

DATE: October 12

I reviewed the document(s) referenced above. I have the following comments.

1. I agree with the use of the presumptive remedy for closure of the landfill.

2. This Proposed Plan does not address the question of dioxin levels in the soil/sediment samples in the wetlands adjacent to Threemile Creek. While the plan indicates (page 10) that ecological risk exists to terrestrial receptors from levels of dioxin found in the three wetland samples, it is silent on how, or indeed whether, this risk would be mitigated by the proposed remedy.

   The wetlands are more closely associated with Threemile Creek than the landfill, and it is likely that the dioxin is associated with contamination in the creek rather than the landfill where dioxin was not a contaminant of concern. I suggest that, similar to Landfill 5, this issue be addressed in the remedial plan for Threemile Creek.

   If you have any questions or comments, please call me at (518) 457-9278.

cc: S. Sanford (PC, RK)
A. Schiavone

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

MEMORANDUM FOR Mr. Jonathan Greco
New York State Department of
Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010

OCTOBER 11, 2000

Mr. Douglas Pocze
USEPA - Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome NY 13441-4105

SUBJECT: Weapons Storage Area Groundwater Investigation Report

1. Attached is the Addendum for the July 1998 Supplemental Investigations of Areas of Concern, Technical Memorandum No. 1: On-Base Groundwater.

2. If you have any questions, please contact Cathy Jerrard at (315) 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment: As Noted

cc: USACE, KC District, Mr. Robert M. Pender

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 FAX: (518) 485-8404

John P. Cahill
Commissioner

MEMORANDUM

To: Tom Quinn, Assistant Director, Division of Environmental Remediation FRSE.
From: Sal Ervolina, Director, Bureau of Eastern Remedial Action
Subject: Draft Final Proposed Plan for Landfill # 6; Griffiss AFB (ID No. 633006)

Date: October 11, 2000

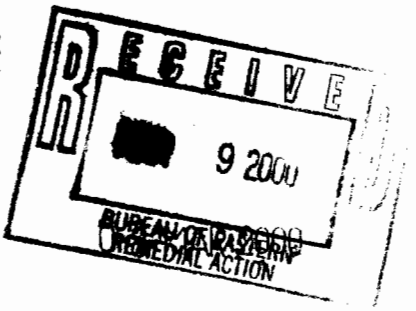
Attached is a copy of the draft final Proposed Plan for the referenced site, along with a PRAP Summary Sheet. This plan has been approved by the Department of Health and the Division of Fish and Wildlife. The USEPA project manager has forwarded the plan to Division Director Caspe with a recommendation for approval.

A briefing has been scheduled for 2:00 p.m. Wednesday, October 18th, in your office.

cc. M. Chen
B. Daigle

RECEIVED
OCT 16 2000

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY



MEMORANDUM FOR Mr. Doug Pocze
USEPA - Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

Mr. Sal Ervolina, Director
Mr. Jonathan Greco, Project Manager
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Building 133 Area of Concern (AOC)

1. In reference to comments provided by the US Environmental Protection Agency by letter dated December 14, 1999 and discussions held on February 23, 2000, the following is provided to clarify ongoing remedial activities and to present an outline of future proposed activities at the Building 133 AOC site:

   a. The quarterly groundwater monitoring reports for Building 133 that you received in
   1999 were the results of investigations required by the NYS Department of Environmental Conservation, Region 6 Spills Program for spill # 970217. This spill number was assigned to the site on May 12, 1997 to track the petroleum releases encountered during the underground concrete storage tank removal actions. These reports only address this spill number and not the closure of the AOC.

   b. As indicated in the Quarterly Groundwater Monitoring Report, Second Round, dated May 1999, additional soil contamination located south and east of Building 133 that was not addressed during previous remedial activities will be removed in the spring/summer of this year. Figures 4, 5, and 6 of the May 1999 report show the lateral and vertical extent of the contamination. Once the removal actions are

completed, confirmatory grab and composite sidewall and bottom soil samples will be collected. The grab samples will be analyzed using the EPA SW8260B,. SW8270C, and SW6010B/7471A methods and the composite samples will be analyzed in accordance with STARS requirements.

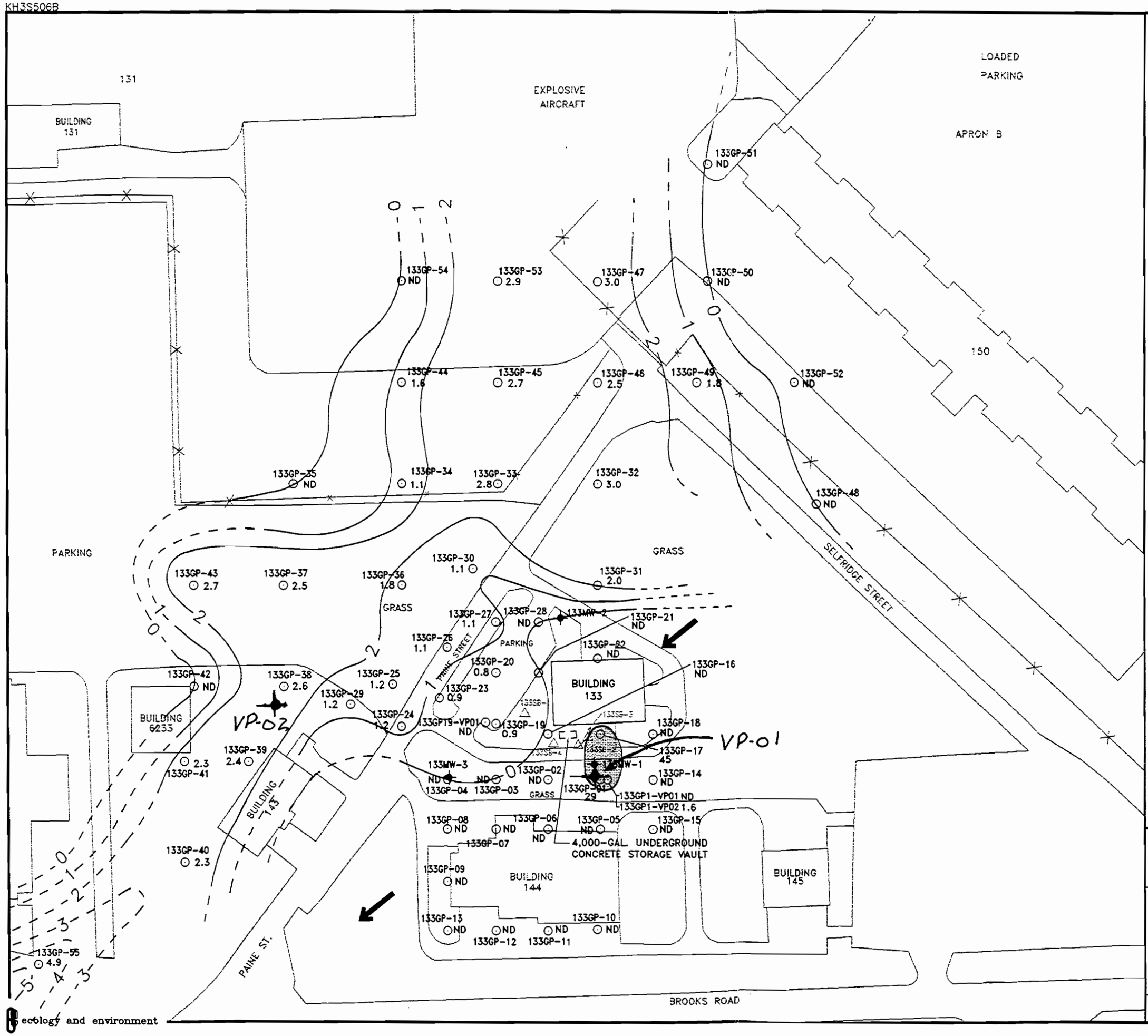
c. In addition to the above, groundwater investigations will be performed at the site this spring to determine the vertical extent of the trichloroethene (TCE) groundwater contamination at the site. A Geoprobe groundwater screening survey (methodology similar to the Building 774/Landfill 6 groundwater investigations) will be performed at two locations (VP-01 & VP-02) as indicated on the attached figure. Vertical profiling of the groundwater will be performed in each location using Hydropunch techniques from the surface of the water table to the top of bedrock. The placement of the permanent well screen in the vertical profile wells will be determined in the field based on the results of the groundwater screenings samples. If the results of the screening samples indicate no contamination above groundwater ARARs, permanent wells will not be installed and the bore holes will be decommissioned. The groundwater screening samples will be analyzed using the EPA 524.2 and 525.2 methods.

2. If you have any questions, please contact Mike Wojnas, 315-330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment:
Building 133 Site Plan

KH3S506B



LEGEND

- SUPPLEMENTAL INVESTIGATION MONITORING WELL
- 1.1 — SUPPLEMENTAL INVESTIGATION GEOPROBE GROUNDWATER SCREENING SAMPLE WITH TCE CONCENTRATION IN µg/L
- RI SOIL BORING/GRAB GROUNDWATER SAMPLE
- DIRECTION OF GROUNDWATER FLOW
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- CONCENTRATION CONTOUR INTERVAL = 1 µg/L
- TCE CONCENTRATION 30-45 µg/L

NOTES:

1) GROUNDWATER ELEVATIONS RECORDED IN AUGUST 1997
2) PROPOSED GEOPROBE LOCATIONS WILL BE SAMPLED IN NOVEMBER 1997

N

SCALE IN FEET

0 100 200 300

UNITED STATES AIR FORCE
GRIFFISS AIR FORCE BASE
ROME, NEW YORK

Figure 4.11.4.6-2
SUPPLEMENTAL INVESTIGATION GEOPROBE GROUNDWATER SCREENING SAMPLE RESULT MAP FOR TCE BUILDING 133 STORAGE VAULT

ecology and environment

PLOTTED BUF: 04/16/98 MEH

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

OCT 0 3 2000

MEMORANDUM FOR Mr. Neal Carrier
NYSDEC
207 Genesee Street
Utica, NY 13501

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome NY 13441-4105

The USEPA is not involved ∈ Petro sites. ∴ NFA should have been withheld.
ML
10/6/00

SUBJECT: Open Spill Numbers 9104707 and 9111732

1. The attached information concerns two open NYSDEC spills at the former Griffiss AFB:

Spill Number 9104707	UST-654-2	Bulk Fuel Storage Area
Spill Number 9111732	UST-026-1 thru 5	Building 26

In addition to being NYSDEC spill sites, both are identified as Source Removal Areas of Concern in the Griffiss Federal Facilities Agreement (FFA). The United States Environmental Protection Agency (USEPA) has approved Proposed Plans for No Further Action for both sites. In accordance with Mr. Jonathan Greco's 9 September 1999 letter (Atch 1), we are petitioning for closure of the spills. Following NYSDEC closure, AFBCA will be submitting the No Further Action Proposed Plans to Mr. Greco for approval. Please note that Mr. Greco's letter also references the Building 117 site, which is not being addressed by this correspondence.

2. Spill Number 9104707 is associated with UST-654-2 at the Bulk Fuel Storage Area. AFBCA requests closure for the soils at this site. The groundwater will be addressed under Spill Number 9810949, which is north of Spill Number 9104707. Historical documents relating to the site are included as attachments.

3. Spill Number 9111732 at former Building 26 former Oil Storage and Dispensing Station is associated with five former USTs (UST-026-1 thru 5). AFBCA requests closure for the soils and groundwater at this site. Groundwater samples were taken from monitoring well 26MB-3 and downgradient monitoring well G058-MW02 during the 1997 Area of Interest (AOI) Expanded Site Investigation of AOI 58/101 (Atch 8). Historical documents relating to the site are included as attachments.

4. If you have any questions, please contact Cathy Jerrard of my environmental staff at 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

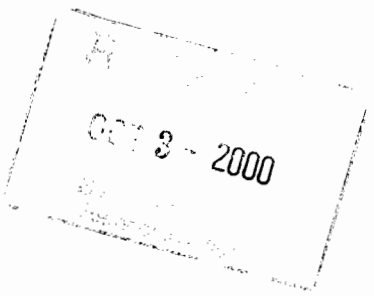
Attachments:
1. 9 Sept 99 letter from J. Greco, NYSDEC to AFBCA
2. February 1999 Proposed Plan, Bulk Fuel Storage Area
3. February 1995 Proposed Plan, Bulk Fuel Storage Area
4. February 1995 Technical Memorandum, Predesign Investigation, Bulk Fuel Storage Area
5. February 1999 Proposed Plan, Building 26
6. February 1995 Proposed Plan, Building 26
7. February 1995 Technical Memorandum, Predesign Investigation, Building 26
8. March 1998, AOI 58/101 Groundwater sample 26MB-3

cc: Mr. Jonathan Greco, NYSDEC (w/o atch)
Mr. Douglas Pocze, USEPA (w/o atch)

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

OCT 0 2 2000

Mr. and Mrs. Joseph Roback
7527 Lambert Road
Rome, New York 13440



AFBCA
153 Brooks Road
Rome, NY 13441-4105

Subject: Sample Results

Dear Mr. and Mrs. Roback:

The Air Force Base Conversion Agency has received the analytical results from the soil samples collected from the former Griffiss property adjacent to your property. The identification for this site is OTH-5485-2, Trash Scatter Dump. Enclosed are the tables of analytical results and a figure indicating the location of the samples. Please note that the definitions for the abbreviations used on the tables are at the end of each table.

This data is considered preliminary until all of the final laboratory verifications are complete. The complete report, which will include discussion and recommended conclusions, is scheduled to be issued by the end of October. The recommendation for site OTH-5485-2 will be no further study due to the low levels of the detected compounds.

A copy of the draft report will be sent to you when it is issued. The United States Environmental Protection Agency (USEPA) and the New York State Department of Environmental Conservation (NYSDEC) will also be receiving a copy and will be commenting on the report.

If you have any questions on the attached data or on the report when you receive it, please contact Cathy Jerrard of my environmental staff at 330-2275.

Sincerely,

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachments:
1. Table 4.6-2
2. Table 4.6-3
3. Figure 4.6-1A
4. Figure 4.6-1

cc: Mr. Jonathan Greco, NYSDEC
Mr. Douglas Pocze, USEPA

Table 4.6-2
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE SOIL SAMPLES FROM OTH-5485-2: TRASH SCATTER-DUMP, YEAR 2000 EXPANDED SITE INVESTIGATION, FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

PARAMETER	Sample ID: / Sample Date: / Depth (ft):	OTH5485-2-NS01 3/14/00 0 - 0.17	OTH5485-2-NS02 3/14/00 0 - 0.17	OTH5485-2-NS03 3/14/00 0 - 0.17	OTH5485-2-NS04 3/14/00 0 - 0.17	OTH5485-2-NS05 3/14/00 0 - 0.17	NYSDEC TAGM 4046	EPA Region III RBCs -Industrial*
Test : PCBs - SW 8082				**Units: mg/kg**				
Aroclor 1254		0.0850	0.0257 U	0.280 U	0.0238 J	0.0298 U	1	2.9
Aroclor 1260		0.0963	0.126	0.596	0.0344	0.0298 U	1	2.9
Test : Pesticides - SW 8081A				**Units: µg/kg**				
4,4'-DDD		2.62 J	19.7 J	18.8 J	3.23 U	2.98 U	2900	24000
4,4'-DDE		17.3	41.8	7.54 J	7.90	3.89	2100	17000
4,4'-DDT		27.2	115	122	8.75	6.47	2100	17000
Aldrin		1.33 U	12.8 U	28 U	1.61 U	1.49 U	41	340
alpha-BHC		1.33 U	12.8 U	28 U	2.91	1.49 U	110	910
Dieldrin		2.66 U	25.7 U	54.7 J	1.21 J	2.98 U	44	360
Endosulfan I		3.07	25.7 U	56 U	3.23 U	2.98 U	900	12000000
Endrin ketone		1.48 J	25.7 U	56 U	3.23 U	0.738 J	-	610000
gamma-Chlordane		0.463 J	12.8 U	28 U	1.61 U	1.49 U	540	16000
Heptachlor		0.712 J	25.7 U	56 U	3.23 U	2.98 U	100	1300
Heptachlor epoxide		2.66 U	25.7 U	56 U	3.23 U	2.98 U	20	630
Methoxychlor		13.3 U	128 U	280 U	16.1 U	2.94 J	10000	10000000
Test : Semivolatiles - SW 8270C				**Units: µg/kg**				
Benz(a)anthracene		443 UJ	422 U	115 J	61.4 J	77.3 J	224	7800
Benzo(a)pyrene		61.2 J	422 U	925 UJ	534 UJ	103 J	61	780
Benzo(b)fluoranthene		72.5 J	422 U	279 J	101 J	137 J	1100	7800
Benzo(g,h,i)perylene		443 UJ	422 U	254 J	534 UJ	494 UJ	50000	-
Benzo(k)fluoranthene		443 UJ	422 U	202 J	93.6 J	158 J	1100	78000
Bis(2-ethylhexyl)phthalate		1890 J	168 J	925 UJ	534 UJ	494 UJ	50000	410000
Butyl benzyl phthalate		122 J	422 U	407 J	534 UJ	494 UJ	50000	410000000
Chrysene		67.9 J	51.7 J	257 J	101 J	152 J	400	780000

For more details on the screening criteria see Table 2-1.

Source: Ecology and Environment, Inc., September 2000

Table 4.6-2
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE SOIL SAMPLES FROM
OTH-5485-2: TRASH SCATTER-DUMP,
YEAR 2000 EXPANDED SITE INVESTIGATION, FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

PARAMETER / Sample ID: / Sample Date: / Depth (ft):	OTH5485-2-NS01 3/14/00 0 - 0.17	OTH5485-2-NS02 3/14/00 0 - 0.17	OTH5485-2-NS03 3/14/00 0 - 0.17	OTH5485-2-NS04 3/14/00 0 - 0.17	OTH5485-2-NS05 3/14/00 0 - 0.17	NYSDEC TAGM 4046	EPA Region III RBCs -Industrial*
Di-n-butyl phthalate	186 J	205 J	286 J	458 J	128 J	8100	200000000
Fluoranthene	71.9 J	82.8 J	203 J	122 J	246 J	50000	82000000
Pentachlorophenol	255 J	1060 U	2330 U	1340 U	1240 U	1000	48000
Phenanthrene	61.4 J	50.8 J	283 J	127 J	224 J	50000	-
Pyrene	145 J	92.3 J	710 J	289 J	413 J	50000	61000000
Test : TAL Metals - SW6010B/7471A/7470A			Units: mg/kg				
Aluminum	17800	15900	7330	12600	13400	18306	2000000
Antimony	1.36 U	0.871 UJ	4.28	0.798 UJ	0.997 U	3.4	820
Arsenic	1.36 U	5.32	1.17 U	4.94	6.64	7.5	3.8
Barium	90.4	173	123	66.4	63.5	300	140000
Beryllium	0.663 J	0.687	0.283 J	0.473 J	0.577	0.65	4100
Cadmium	16.8 J	5.37	14.0	3.94	3.65	1.1	1000
Calcium	1360	1660	3470	761	538	23821	-
Chromium	36.5 J	26.0	28.5	16.6	17.6	22.6	6100
Cobalt	16.7	14.7	8.54	8.26	9.94	30	120000
Copper	123 J	54.4	129	34.5	34.7	43	82000
Iron	101000	43300	94400	28100	31900	47350	610000
Lead	158	144	526	106	48.8	200	400
Magnesium	4760	4700	1760	2350	3010	7175	-
Manganese	1600	1530	1090	1220	1270	2106	41000
Mercury	0.330 J	0.118 J	0.286 J	0.291 J	0.194 J	0.1	-
Nickel	28.2	33.5	38.1	12.4	14.7	46	41000
Potassium	1260	1080	969	1090	1260	1993	-
Selenium	3.91 J	0.985 UJ	4.36 J	1.25 UJ	0.997 UJ	2	10000
Silver	0.389 J	0.985 UJ	0.643 J	1.25 UJ	0.552 J	1.1	10000

For more details on the screening criteria see Table 2-1.

Source: Ecology and Environment, Inc., September 2000

Table 4.6-2
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE SOIL SAMPLES FROM
OTH-5485-2: TRASH SCATTER-DUMP,
YEAR 2000 EXPANDED SITE INVESTIGATION, FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

PARAMETER / Sample ID / Sample Date / Depth (ft):	OTH5485-2-NS01 3/14/00 0 - 0.17	OTH5485-2-NS02 3/14/00 0 - 0.17	OTH5485-2-NS03 3/14/00 0 - 0.17	OTH5485-2-NS04 3/14/00 0 - 0.17	OTH5485-2-NS05 3/14/00 0 - 0.17	NYSDEC TAGM 4046	EPA Region III RBCs -Industrial*
Sodium	47.0 J	35.2 J	36.4 J	125 U	99.7 U	259	-
Thallium	1.36 UJ	0.985 UJ	1.17 UJ	1.25 UJ	0.997 UJ	0.45	140
Vanadium	31.9	28.9	22.6	27.7	29.1	150	14000
Zinc	175 J	155 J	219 J	135 J	83.3 J	120	610000
Test : Volatiles - SW 8260B			**Units: µg/kg**				
Acetone	13.6 U	12.4 U	13.6 U	15.4 U	14.5 U	200	200000000

For more details on the screening criteria see Table 2-1.

Source: Ecology and Environment, Inc., September 2000

Table 4.6-2
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE SOIL SAMPLES FROM
OTH-5485-2: TRASH SCATTER-DUMP,
YEAR 2000 EXPANDED SITE INVESTIGATION, FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

PARAMETER / Sample ID: / Sample Date: / Depth (ft):	OTH5485-2-NS06 3/14/00 0 - 0.17	OTH5485-2-NS06/D 3/14/00 0 - 0.17	OTH5485-2-SS01-Z1 4/3/00 0 - 2	OTH5485-2-SS01-Z2 4/4/00 28 - 30	OTH5485-2-SS02-Z1 4/6/00 0 - 2	NYSDEC TAGM 4046	EPA Region III RBCs -Industrial*
Test : PCBs - SW 8082			**Units: mg/kg**				
Aroclor 1254	0.126 U	0.0259 U	0.0253 U	0.0244 U	0.0245 U	1	2.9
Aroclor 1260	0.126 U	0.0259 U	0.0253 U	0.0244 U	0.0245 U	1	2.9
Test : Pesticides - SW 8081A			**Units: µg/kg**				
4,4'-DDD	373	347	2.53 U	2.44 U	2.45 U	2900	24000
4,4'-DDE	403	306	2.53 U	2.44 U	1.57 J	2100	17000
4,4'-DDT	2960	2400	2.53 U	2.44 U	1.58 J	2100	17000
Aldrin	126 U	64.8 U	1.26 U	1.22 U	2.56	41	340
alpha-BHC	126 U	64.8 U	1.26 U	1.22 U	1.22 U	110	910
Dieldrin	252 U	130 U	2.53 U	2.44 U	2.45 U	44	360
Endosulfan I	252 U	130 U	2.53 U	2.44 U	2.45 U	900	12000000
Endrin ketone	252 U	130 U	2.53 U	2.44 U	2.45 U	-	610000
gamma-Chlordane	126 U	64.8 U	1.26 U	1.22 U	1.22 U	540	16000
Heptachlor	252 U	130 U	2.53 U	2.44 U	2.45 U	100	1300
Heptachlor epoxide	252 U	130 U	2.53 U	2.44 U	2.45 U	20	630
Methoxychlor	275 J	112 J	12.6 U	12.2 U	12.2 U	10000	10000000
Test : Semivolatiles - SW 8270C			**Units: µg/kg**				
Benz(a)anthracene	52.2 J	48.4 J	428 U	402 U	404 U	224	7800
Benzo(a)pyrene	53.7 J	426 UJ	428 UJ	402 U	404 U	61	780
Benzo(b)fluoranthene	78.9 J	71.8 J	428 UJ	402 U	404 U	1100	7800
Benzo(g,h,i)perylene	420 UJ	426 UJ	428 UJ	402 U	404 U	50000	-
Benzo(k)fluoranthene	75.5 J	426 UJ	428 UJ	402 U	404 U	1100	78000
Bis(2-ethylhexyl)phthalate	99.5 J	426 U	146 J	402 U	404 U	50000	410000
Butyl benzyl phthalate	420 U	426 U	428 U	402 U	404 U	50000	410000000
Chrysene	78.4 J	82.7 J	428 U	402 U	404 U	400	780000

For more details on the screening criteria see Table 2-1.

Source: Ecology and Environment, Inc., September 2000

Table 4.6-2
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE SOIL SAMPLES FROM
OTH-5485-2: TRASH SCATTER-DUMP,
YEAR 2000 EXPANDED SITE INVESTIGATION, FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

PARAMETER / Sample ID: / Sample Date: / Depth (ft):	OTH5485-2-NS06 3/14/00 0 - 0.17	OTH5485-2-NS06/D 3/14/00 0 - 0.17	OTH5485-2-SS01-Z1 4/3/00 0 - 2	OTH5485-2-SS01-Z2 4/4/00 28 - 30	OTH5485-2-SS02-Z1 4/6/00 0 - 2	NYSDEC TAGM 4046	EPA Region III RBCs -Industrial*
Di-n-butyl phthalate	208 J	426 U	428 U	402 U	404 U	8100	200000000
Fluoranthene	139 J	113 J	428 U	402 U	48.5 J	50000	82000000
Pentachlorophenol	1060 U	1070 U	1080 U	1010 U	1020 U	1000	48000
Phenanthrene	95.5 J	64.0 J	428 U	402 U	404 U	50000	-
Pyrene	178 J	170 J	428 U	402 U	43.0 J	50000	61000000
Test : TAL Metals - SW6010B/7471A/7470A				Units: mg/kg			
Aluminum	13300	11100	19500	2680	12200	18306	2000000
Antimony	1.25 UJ	2.24	0.971 U	1.14 U	0.862 U	3.4	820
Arsenic	2.83	0.957 J	4.32	1.24	4.12 J	7.5	3.8
Barium	130	207	63.1	7.04	108	300	140000
Beryllium	0.581	0.559	0.797	0.132 J	0.396 J	0.65	4100
Cadmium	6.23	8.09	4.30	0.671	2.80	1.1	1000
Calcium	3230	4150	1220	866	1610	23821	-
Chromium	20.5	26.7	26.3	4.22	14.5	22.6	6100
Cobalt	10.8	11.4	13.9	2.37	8.25	30	120000
Copper	38.6	50.1	43.5	8.25	21.2	43	82000
Iron	41400	49700	40400	6670	23600	47350	610000
Lead	105	195	28.0	1.69	17.8	200	400
Magnesium	3760	3300	6930	1430	2910	7175	-
Manganese	1330	1630	971	245	921	2106	41000
Mercury	0.178 J	0.252 J	0.0618	0.0413 U	0.0485	0.1	-
Nickel	18.8	16.8	31.4	5.68	16.4	46	41000
Potassium	977	1110	939 JB	484 U	512 U	1993	-
Selenium	0.897 UJ	1.50 J	3.70	1.14 U	1.20 J	2	10000
Silver	0.531 J	0.367 J	0.971 U	1.14 U	0.331 U	1.1	10000

For more details on the screening criteria see Table 2-1.

Source: Ecology and Environment, Inc., September 2000

Table 4.6-2
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE SOIL SAMPLES FROM
OTH-5485-2: TRASH SCATTER-DUMP,
YEAR 2000 EXPANDED SITE INVESTIGATION, FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

PARAMETER / Sample ID: / Sample Date: / Depth (ft):	OTH5485-2-NS06 3/14/00 0 - 0.17	OTH5485-2-NS06/D 3/14/00 0 - 0.17	OTH5485-2-SS01-Z1 4/3/00 0 - 2	OTH5485-2-SS01-Z2 4/4/00 28 - 30	OTH5485-2-SS02-Z1 4/6/00 0 - 2	NYSDEC TAGM 4046	EPA Region III RBCs -Industrial*
Sodium	31.7 J	46.6 J	97.1 U	114 U	86.2 U	259	-
Thallium	0.897 UJ	1.06 UJ	0.971 U	1.14 U	0.449 J	0.45	140
Vanadium	25.8	26.0	30.7	5.35	19.7	150	14000
Zinc	686 J	928 J	98.0	16.3	93.1	120	610000
Test : Volatiles - SW 8260B			**Units: µg/kg**				
Acetone	11.6 U	12.7 U	12.9 U	5.67 JB	11.4 U	200	200000000

For more details on the screening criteria see Table 2-1.

Source: Ecology and Environment, Inc., September 2000

Table 4.6-2
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE SOIL SAMPLES FROM OTH-5485-2: TRASH SCATTER-DUMP, YEAR 2000 EXPANDED SITE INVESTIGATION, FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

PARAMETER	Sample ID: / Sample Date: / Depth (ft):						NYSDEC TAGM 4046	EPA Region III RBCs -Industrial*
	Sample ID:	OTH5485-2-SS02-Z2	OTH5485-2-SS03-Z1	OTH5485-2-SS03-Z2				
	Sample Date:	4/6/00	4/7/00	4/7/00				
	Depth (ft):	20 - 22	0 - 2	18.5 - 20.2				
Test : PCBs - SW 8082				Units: mg/kg				
Aroclor 1254		0.023 U	0.0265 U	0.0264 U			1	2.9
Aroclor 1260		0.023 U	0.0265 U	0.0264 U			1	2.9
Test : Pesticides - SW 8081A				Units: µg/kg				
4,4'-DDD		2.3 U	2.65 U	2.64 U			2900	24000
4,4'-DDE		2.3 U	2.28 J	2.64 U			2100	17000
4,4'-DDT		2.3 U	2.47 J	2.64 U			2100	17000
Aldrin		1.15 U	1.32 U	1.32 U			41	340
alpha-BHC		1.15 U	1.32 U	1.32 U			110	910
Dieldrin		2.3 U	2.65 U	2.64 U			44	360
Endosulfan I		2.3 U	2.65 U	2.64 U			900	12000000
Endrin ketone		2.3 U	2.65 U	2.64 U			-	610000
gamma-Chlordane		1.15 U	1.32 U	1.32 U			540	16000
Heptachlor		2.3 U	2.65 U	2.64 U			100	1300
Heptachlor epoxide		2.3 U	2.07 J	2.64 U			20	630
Methoxychlor		11.5 U	13.2 U	13.2 U			10000	10000000
Test : Semivolatiles - SW 8270C				Units: µg/kg				
Benz(a)anthracene		386 U	427 U	425 U			224	7800
Benzo(a)pyrene		386 U	427 U	425 U			61	780
Benzo(b)fluoranthene		386 U	427 U	425 U			1100	7800
Benzo(g,h,i)perylene		386 U	427 U	425 U			50000	-
Benzo(k)fluoranthene		386 U	427 U	425 U			1100	78000
Bis(2-ethylhexyl)phthalate		78.8 J	427 U	90.8 J			50000	410000
Butyl benzyl phthalate		386 U	427 U	425 U			50000	410000000
Chrysene		386 U	427 U	425 U			400	780000

For more details on the screening criteria see Table 2-1.

Source: Ecology and Environment, Inc., September 2000

Table 4.6-2
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE SOIL SAMPLES FROM OTH-5485-2: TRASH SCATTER-DUMP, YEAR 2000 EXPANDED SITE INVESTIGATION, FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

PARAMETER / Sample ID / Sample Date / Depth (ft)	OTH5485-2-SS02-Z2 4/6/00 20 - 22	OTH5485-2-SS03-Z1 4/7/00 0 - 2	OTH5485-2-SS03-Z2 4/7/00 18.5 - 20.2			NYSDEC TAGM 4046	EPA Region III RBCs -Industrial*
Di-n-butyl phthalate	386 U	427 U	425 U			8100	200000000
Fluoranthene	386 U	427 U	425 U			50000	82000000
Pentachlorophenol	972 U	1070 U	1070 U			1000	48000
Phenanthrene	386 U	427 U	425 U			50000	-
Pyrene	386 U	427 U	425 U			50000	61000000
Test : TAL Metals - SW6010B/7471A/7470A			Units: mg/kg				
Aluminum	3090	13000	5280			18306	2000000
Antimony	1.17 U	1.04 U	1.25 U			3.4	820
Arsenic	1.94 U	3.00 U	2.95 U			7.5	3.8
Barium	8.44	54.6	18.9			300	140000
Beryllium	0.587 U	0.381 J	0.242 J			0.65	4100
Cadmium	1.03 J	3.05	1.57			1.1	1000
Calcium	899	125 U	1250			23821	-
Chromium	4.88	15.7	6.61			22.6	6100
Cobalt	3.32	9.38	4.51			30	120000
Copper	8.55 J	22.0	18.4			43	82000
Iron	7880	26700	12700			47350	610000
Lead	0.959	11.2	2.48			200	400
Magnesium	1440	2770	1940			7175	-
Manganese	282	1120	395			2106	41000
Mercury	0.0387 U	0.0413	0.0438 U			0.1	-
Nickel	6.69	13.6	10.3			46	41000
Potassium	542 U	631 U	701 JB			1993	-
Selenium	1.17 UR	2.46	1.25 U			2	10000
Silver	0.840 U	0.507 U	0.728 U			1.1	10000

For more details on the screening criteria see Table 2-1.

Source: Ecology and Environment, Inc., September 2000

Table 4.6-2
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE SOIL SAMPLES FROM OTH-5485-2: TRASH SCATTER-DUMP, YEAR 2000 EXPANDED SITE INVESTIGATION, FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

PARAMETER	Sample ID: / Sample Date: / Depth (ft):	OTH5485-2-SS02-Z2 4/6/00 20 - 22	OTH5485-2-SS03-Z1 4/7/00 0 - 2	OTH5485-2-SS03-Z2 4/7/00 18.5 - 20.2			NYSDEC TAGM 4046	EPA Region III RBCs -Industrial*
Sodium		117 U	104 U	125 U			259	-
Thallium		1.17 U	0.806 J	1.25 U			0.45	140
Vanadium		6.28	23.0	9.78			150	14000
Zinc		18.6	61.9	32.2			120	610000
Test : Volatiles - SW 8260B				**Units:** µg/kg				
Acetone		10.7 U	13 U	12.6 U			200	200000000

For more details on the screening criteria see Table 2-1.

Source: Ecology and Environment, Inc., September 2000

Table 4.6-2
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE SOIL SAMPLES FROM OTH-5485-2: TRASH SCATTER-DUMP, YEAR 2000 EXPANDED SITE INVESTIGATION, FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

Key:

Qualifiers:

J	estimated
JB	estimated, detected in blank
U	not detected
UJ	not detected; estimated detection limit reported
UR	not detected; rejected sample

Units:

mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram

Test and Sample Information:

PCBs = polychlorinated biphenyls
TAL = Target Analyte List
TRPH = total recoverable petroleum hydrcarbons
/D = duplicate sample
NA = not analyzed

Screening:

Result above NYSDEC recommended soil cleanup objectives, Technical and Administrative Guidance Memorandum (TAGM) 4046, (NYSDEC 1994).

Result above industrial EPA Region III Risk-Based Concentration (RBC), for soil, (EPA 2000).

* The EPA OSWER (Directive No. 9355.4-12, July 1994) health-based screening value for lead in soil in a residential area with children was used in lieu of an RBC. The NYSDEC screening value for PCBs is 1 ppm for surface soils and 10 ppm for subsurface soils. Since there were no positive hits in the subsurface soil samples from OTH 5485-2 the results were screened against the screening value for surface soils (1ppm).

Source: Ecology and Environment, Inc., Sep r 2000

Table 4.6-3
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE GROUNDWATER SAMPLES FROM OTH-5485-2: TRASH SCATTER-DUMP, YEAR 2000 EXPANDED SITE INVESTIGATION FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

PARAMETER	Sample ID:	OTH5485-2-SS01-GW	OTH5485-2-SS01-GW-F	OTH5485-2-SS02-GW	OTH5485-2-SS02-GW-F	OTH5485-2-SS03-GW	NYSDEC Class GA Standard	Federal MCL *	EPA Region III RBCs for Tap Water
	Sample Date:	5/4/00	5/4/00	5/2/00	5/2/00	5/3/00			
	Depth (ft):	29 - 39	29 - 39	20.6 - 30.6	20.6 - 30.6	18 - 28			
Test : TAL Metals - SW6010B/7471A/7470A					Units: µg/L				
Aluminum		122 J	22.3 U	241	56.9 U	50.1 U	-	50	37000
Barium		12.2 J	10.5 J	3.22 J	2.53 J	3.08 J	1000	2000	2600
Calcium		21400	22200	12500	14300	8600 J	-	-	-
Cobalt		20 U	20 U	20 U	0.611 J	20 U	-	-	2200
Iron		213 J	84.4	316	64.6 U	73.9 U	300	300	11000
Magnesium		6700 J	6970 J	3240	3520	2380 J	35000	-	-
Manganese		244 J	231	78.4	75.8	160	300	50	730
Potassium		858 J	763 J	923 J	919 J	854 J	-	-	-
Selenium		9.95 J	10 U	10 U	11.8	10 U	10	50	180
Sodium		5320	5620	2850	3250	2020	20000	-	-
Zinc		4.18 J	4.88 U	4.61 J	4.46 J	10 U	2000	5000	11000

For more details on the screening criteria see Table 2-2.

Source: Ecology and Environment, Inc., September 2000

Table 4.6-3
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE GROUNDWATER SAMPLES FROM OTH-5485-2: TRASH SCATTER-DUMP, YEAR 2000 EXPANDED SITE INVESTIGATION FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

PARAMETER	Sample ID:	OTH5485-2-SS03-GW-F	OTH5485-2-SS03-GW/D				NYSDEC Class GA Standard	Federal MCL *	EPA Region III RBCs for Tap Water
	Sample Date:	5/3/00	5/3/00						
	Depth (ft):	18 - 28	18 - 28						
Test : TAL Metals - SW6010B/7471A/7470A						Units: µg/L			
Aluminum		11.7 U	33.7 U				-	50	37000
Barium		3.10 J	3.32 J				1000	2000	2600
Calcium		8860	8500 J				-	-	-
Cobalt		0.732 J	0.753 J				-	-	2200
Iron		22.6 U	51.3 U				300	300	11000
Magnesium		2500 J	2380 J				35000	-	-
Manganese		168 J	154				300	50	730
Potassium		1020	873 J				-	-	-
Selenium		10 U	10 U				10	50	180
Sodium		2110	2000				20000	-	-
Zinc		4.33 J	10 U				2000	5000	11000

For more details on the screening criteria see Table 2-2.

Source: Ecology and Environment, Inc., September 2000

Table 4.6-3
SUMMARY OF POSITIVE HITS AND SCREENING FOR THE GROUNDWATER SAMPLES FROM OTH-5485-2: TRASH SCATTER-DUMP, YEAR 2000 EXPANDED SITE INVESTIGATION, FORMER GRIFFISS AIR FORCE BASE, ROME, NEW YORK

Key:

Qualifiers:

J	estimated
U	not detected
UJ	not detected; estimated detection limit reported
UR	not detected; rejected sample

Units:

mg/L = milligrams per liter
µg/L = micrograms per liter

Test and Sample Information:

PCBs = polychlorinated biphenyls
TAL = Target Analyte List
TRPH = total recoverable petroleum hydrcarbons
/D = duplicate sample
NA = not analyzed

Screening:

Result above NYSDEC Ambient Water Quality Standards and Guidance Values for Class GA (groundwater) source of drinking water (NYSDEC 1998).

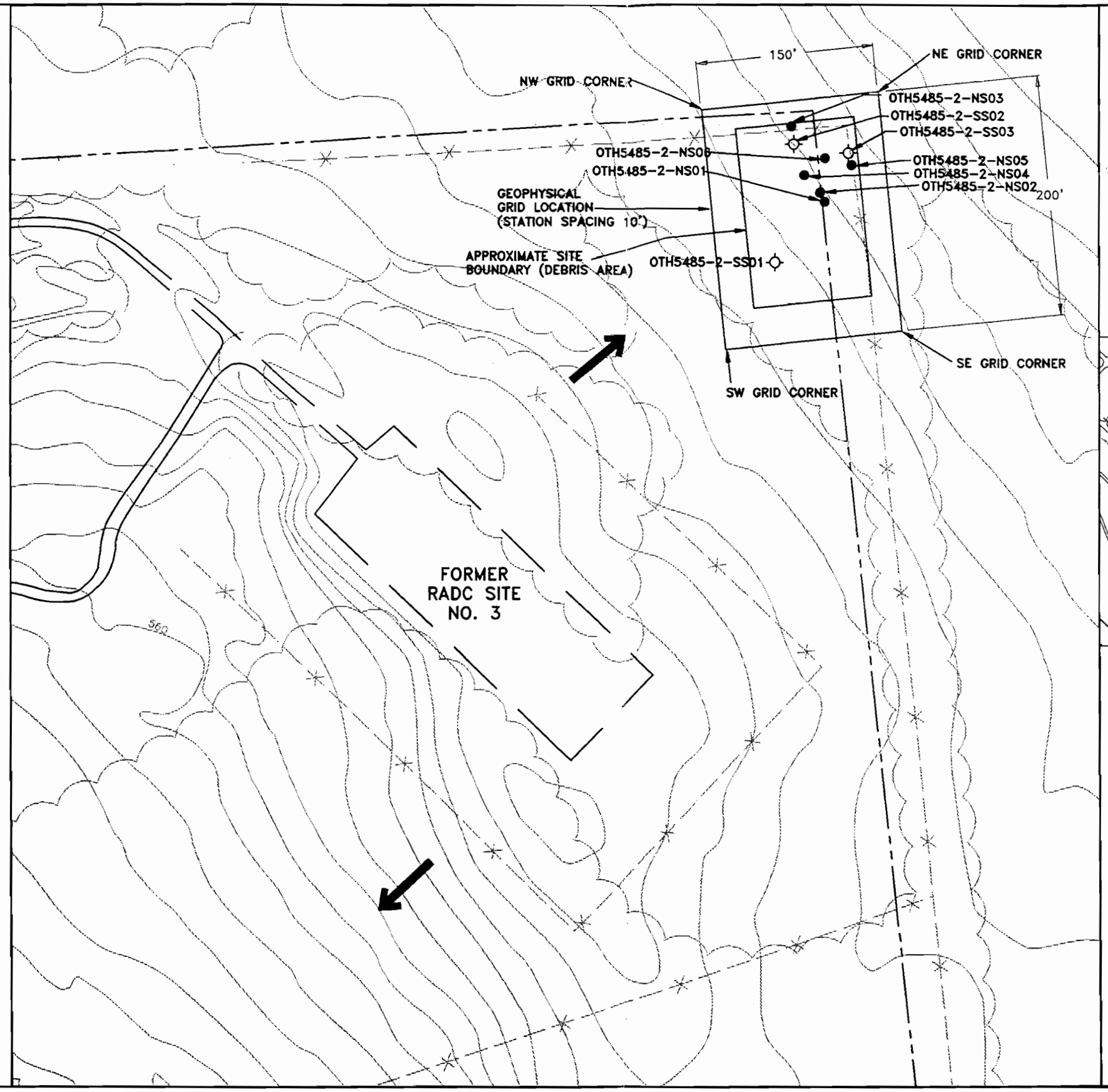
Result above EPA Region III Risk-Based Concentration (RBC) for tap water (EPA 2000).

Result above Federal Maximum Contaminant Level (MCL), Drinking Water Regulations and Health Advisories (EPA 2000).

* MCLs for aluminum, iron, manganese, and zinc are secondary MCLs based on aesthetics.
In lieu of an MCL for copper and lead, action levels are used.

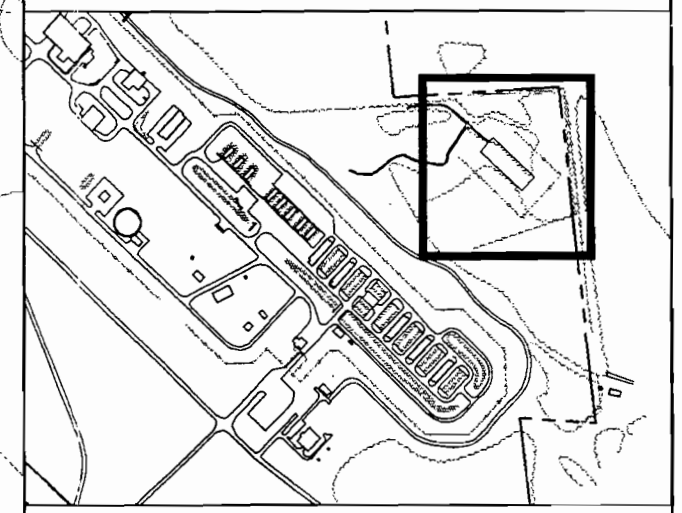
Source: Ecology and Environment, Inc., September 2000

CK1S013B_A



LEGEND

- YEAR 2000 ESI, TEMPORARY WELL
- YEAR 2000 ESI, NEAR-SURFACE SOIL SAMPLE LOCATION
- ASSUMED DIRECTION OF GROUNDWATER FLOW
- FENCE
- 510 TOPOGRAPHIC CONTOUR LINE
- ESI EXPANDED SITE INVESTIGATION
- OTH OTHER MISCELLANEOUS SITES
- RADC ROME AIR DEVELOPMENTAL CENTER



SCALE IN FEET

0 100 200 300

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FIGURE 4.6-1 YEAR 2000 ESI SAMPLE LOCATIONS
TRASH SCATTER, DUMP
(OTH-5485-2)

Date plotted: 6/21/00 DDL

CK1S013B_B

OTH5485-2-NS01 0-0.17ft. BGS	
ORGANICS (µg/kg)	
Benzo(a)pyrene	61.2J
INORGANICS (mg/kg)	
Beryllium	0.663
Cadmium	16.8J
Chromium	36.5J
Copper	123J
Iron	101,000
Mercury	0.33J
Selenium	3.91J
Zinc	175J

OTH5485-2-NS02 0-0.17ft. BGS	
INORGANICS (mg/kg)	
Arsenic	4.32
(As exceeded RBC only)	
Beryllium	0.687
Cadmium	5.37
Chromium	26.0
Copper	54.4
Mercury	0.118J
Zinc	155J

OTH5485-2-NS03 0-0.17ft. BGS	
ORGANICS (µg/kg)	
Dieldrin	54.7J
INORGANICS (mg/kg)	
Antimony	4.28
Cadmium	14.0
Chromium	28.5
Copper	129
Iron	94,400
Lead	628
Mercury	0.286J
Selenium	4.36J
Zinc	219J

OTH5485-2-NS04 0-0.17ft. BGS	
INORGANICS (mg/kg)	
Arsenic	8.3
(As exceeded RBC only)	
Cadmium	3.94
Mercury	0.291J
Zinc	135J

OTH5485-2-NS05 0-0.17ft. BGS	
ORGANICS (µg/kg)	
Benzo(a)pyrene	103J
INORGANICS (mg/kg)	
Arsenic	8.3
(As exceeded RBC only)	
Cadmium	3.65
Mercury	0.194J

OTH5485-2-NS06 0-0.17ft. BGS	
ORGANICS (µg/kg)	
4,4' DDT	2960
INORGANICS (mg/kg)	
Cadmium	6.23
Mercury	0.178J
Zinc	686J

OTH5485-2-NS06/D 0-0.17ft. BGS	
ORGANICS (µg/kg)	
4,4' DDT	2400
INORGANICS (mg/kg)	
Cadmium	8.09
Chromium	26.7
Copper	50.1
Iron	49,700
Mercury	0.252J
Zinc	928J

OTH5485-2-SS01-Z1 0-2.0ft. BGS	
INORGANICS (mg/kg)	
Aluminum	19,500
Arsenic	4.32
(As exceeded RBC only)	
Beryllium	0.797
Cadmium	4.30
Chromium	26.3
Copper	43.5
Selenium	3.70

OTH5485-2-SS02-Z1 0-2.0ft. BGS	
INORGANICS (mg/kg)	
Arsenic	4.32
(As exceeded RBC only)	
Cadmium	2.80

OTH5485-2-SS03-Z1 0-2.0ft. BGS	
INORGANICS (mg/kg)	
Cadmium	3.05
Selenium	2.46
Thallium	0.806J

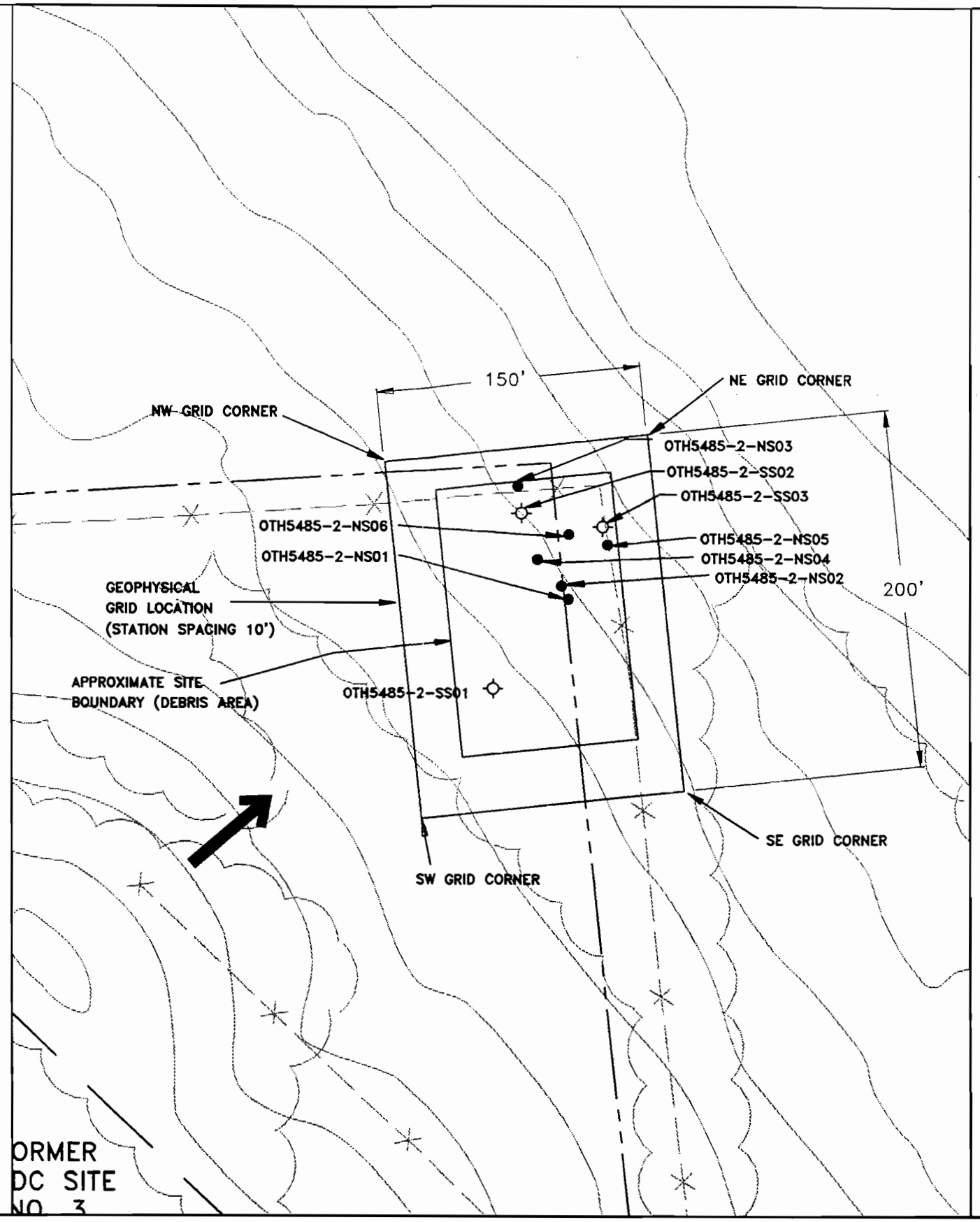
OTH5485-2-SS03-Z2 18.5-20.2ft. BGS	
INORGANICS (mg/kg)	
Cadmium	1.57

OTH5485-2-SS01-GW 29-39ft. BGS	
INORGANICS (µg/L)	
Aluminum	122J
Manganese	244J
(Both exceeded federal MCL only)	

OTH5485-2-SS01-GW-F 29-39ft. BGS	
INORGANICS (µg/L)	
Manganese	231
(Exceeded federal MCL only)	

OTH5485-2-SS02-GW 20.6-30.6ft. BGS	
INORGANICS (µg/L)	
Aluminum	241
(Al exceeded federal MCL only)	
Iron	316
Manganese	78.4
(Mn exceeded federal MCL only)	

OTH5485-2-SS02-GW-F 20.6-30.6ft. BGS	
INORGANICS (µg/L)	
Manganese	244J
(Mn exceeded federal MCL only)	
Selenium	11.8



LEGEND

- YEAR 2000 ESI, TEMPORARY WELL
- YEAR 2000 ESI, NEAR-SURFACE SOIL SAMPLE LOCATION
- ASSUMED DIRECTION OF GROUNDWATER FLOW
- FENCE
- 510 TOPOGRAPHIC CONTOUR LINE
- EXCEEDS RISK BASED SCREENING CRITERIA
- 168 VALUE ALSO EXCEEDS FEDERAL MCL

As	Arsenic
BGS	BELOW GROUND SURFACE
ESI	EXPANDED SITE INVESTIGATION
J	ESTIMATED VALUE
MCL	MAXIMUM CONTAINMENT LEVEL
Mn	Manganese
NYSDEC	NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION
OTH	OTHER MISCELLANEOUS SITES
RADC	ROME AIR DEVELOPMENTAL CENTER

OTH5485-2-SS03-GW 18-28ft. BGS	
INORGANICS (µg/L)	
Manganese	160
(Mn exceeded federal MCL only)	

OTH5485-2-SS03-GW-F 18-28ft. BGS	
INORGANICS (µg/L)	
Manganese	168
(Mn exceeded federal MCL only)	

OTH5485-2-SS03-GW/D 18-28ft. BGS	
INORGANICS (µg/L)	
Manganese	154
(Mn exceeded federal MCL only)	

NOTES:

1. ONLY ANALYTICAL DATA FROM THE YEAR 2000 ESI THAT EXCEEDED SCREENING CRITERIA ARE SHOWN.
2. ALL DATA EXCEEDED NYSDEC CRITERIA UNLESS OTHERWISE NOTED.

N

SCALE IN FEET

0 75 150 225

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4.6-1A YEAR 2000 ESI RESULTS
TRASH SCATTER, DUMP
(OTH-5485-2)

BUFF plotted: 8/12/00 DDL

DRAFT

WORK PLAN ADDENDUM

Prepared for:

Areas of Concern
Long-Term Monitoring Program
Griffiss Air Force Base
Rome, New York

through

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Contract No. F41624-95-D-8003
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Project No. JREZ 02-7040

Revision 1.1
October 2000

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3.8 GLYCOL STORAGE/USE AREA OF CONCERN

3.8.1 Site Location and History

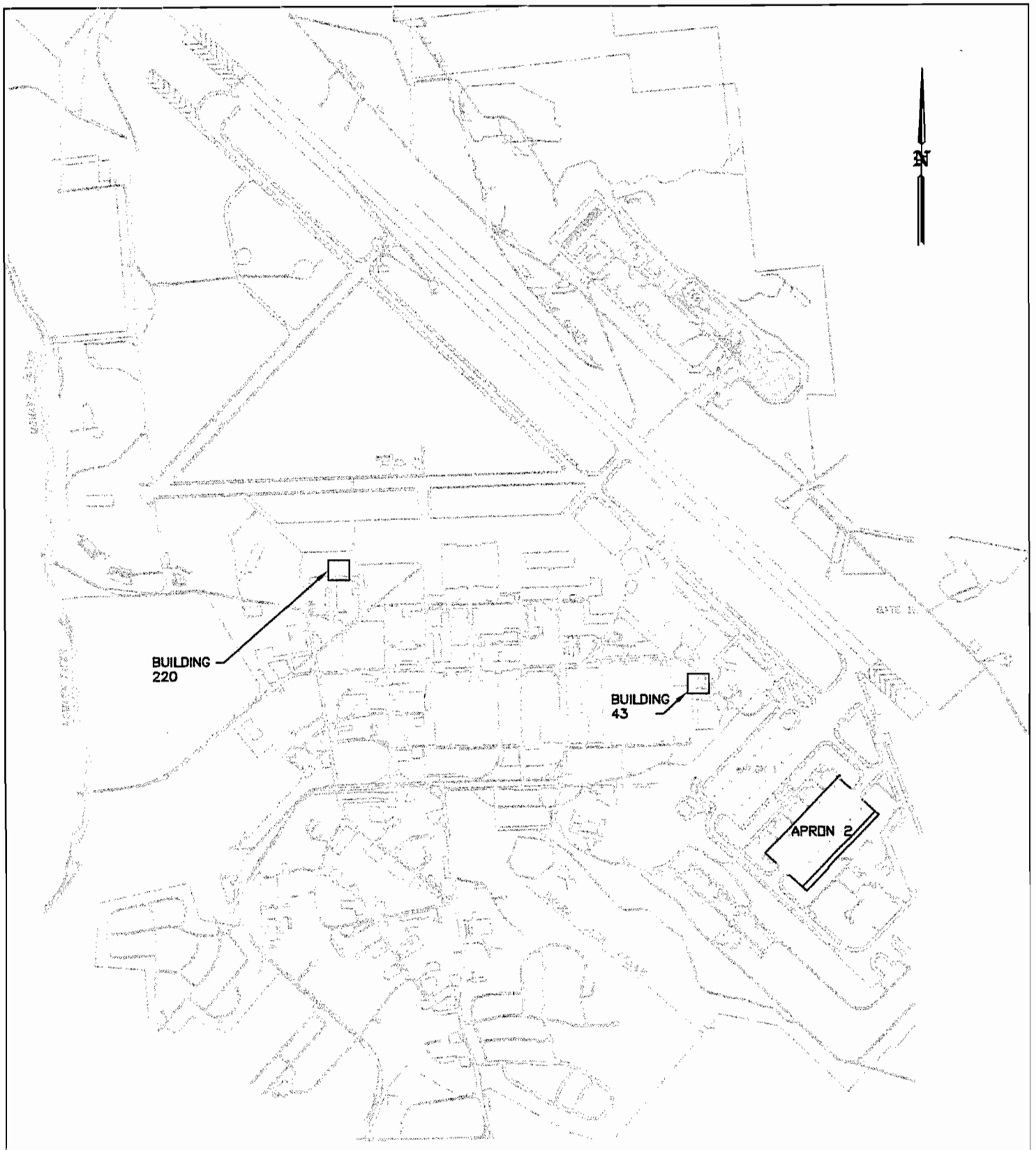
The Glycol Storage/Use Area Area of Concern (AOC) is primarily associated with glycol underground storage tanks (USTs) and spills in the vicinity of Building 220, Building 43, and Apron 2 (Figure 3-21). This Work Plan addresses only the presence/absence of glycol in these areas; other potential contaminants of concern are being addressed under other programs (i.e., the Petroleum Spills Program, Building 786 AOC, the Nosedocks 1 and 2 AOC, etc.) Figures 3-22, 3-23, and 3-24 illustrate these buildings, together with the locations of existing monitoring wells and the December 1998 groundwater elevation measurements and corresponding water-level contours collected in the vicinity of these areas.

Building 220 is located in the southwest-central area of the base, south of Apron 4, in the northernmost section of an area informally known by base personnel as "Tin City." The building was used for vehicle maintenance. Two areas were suspected sources: an area east of Building 220 where small quantities of ethylene glycol were stored in 55-gallon drums, and the area west of Building 220 where base vehicles reportedly released antifreeze each year (Law, 1996).

Building 43 is located in the southeast-central section of the base, south of the Fire Station, northwest of Apron 1 and the Nose Dock areas, southeast of the T-9 storage AOC, and southwest of the main runway. The building is the location for refueling of base equipment and vehicles. Two 25,000-gallon glycol USTs are located at this site. Twelve borings were installed adjacent to these USTs in August 1998; one soil sample was collected from each, and samples were analyzed for ethylene and propylene glycol. No glycol detections were reported (Preliminary Report, Underground Storage Tank and Oil/Water Separator Site Investigations, PEER, September 1998).

Apron 2 is located in the southeastern section of the base, southeast of the Nose Dock areas and the runway. Apron 2 was used historically for the deicing of the planes in the winter using ethylene glycol. The glycol was not contained and was allowed to discharge as run-off from the Apron. The Apron is sloped toward the center, where storm water collection drains channel run-off into an oil/water separator; there would have been minimal run-off to the grassy areas surrounding the Apron. Through the storm drain system, run-off would have eventually discharged to Six Mile Creek.

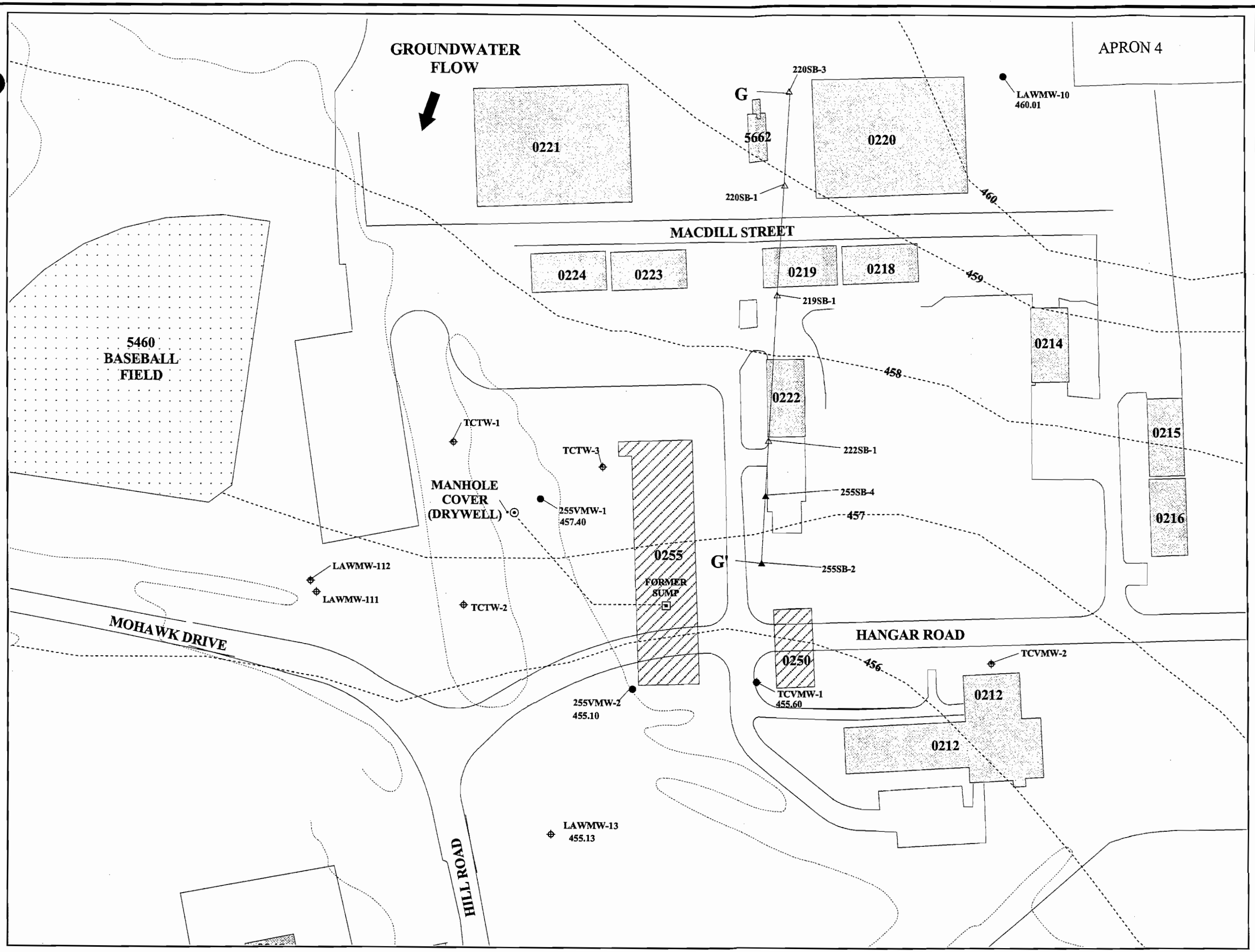
The base began using propylene glycol instead of ethylene glycol in 1988, and was used until the base was deactivated in 1995. In addition, a 2,600-gallon AST located southwest of Building 785 reportedly contained glycols, but had been removed in 1980 (Basewide Environmental Baseline Study, September 1994).



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FIGURE 3-21

LOCATIONS OF GLYCOL STORAGE/USE AOC



Building 220 Site Location Map

- Existing Well with ID & Dec. 1998 Water Level (optional)
- LTM Existing Well ID & Dec. 1998 Water Level (optional)
- December 1998 1-ft Water-Level Contour
- Land-surface 5-ft Contours (values not shown)
- Roads

BUILDINGS

- 0101 Existing and Building No.
- 0101 Demolished and Building No.
- ▲ Soil Boring (RI, 1996)
- △ Soil Boring/Grab Groundwater Sampling (RI, 1996)

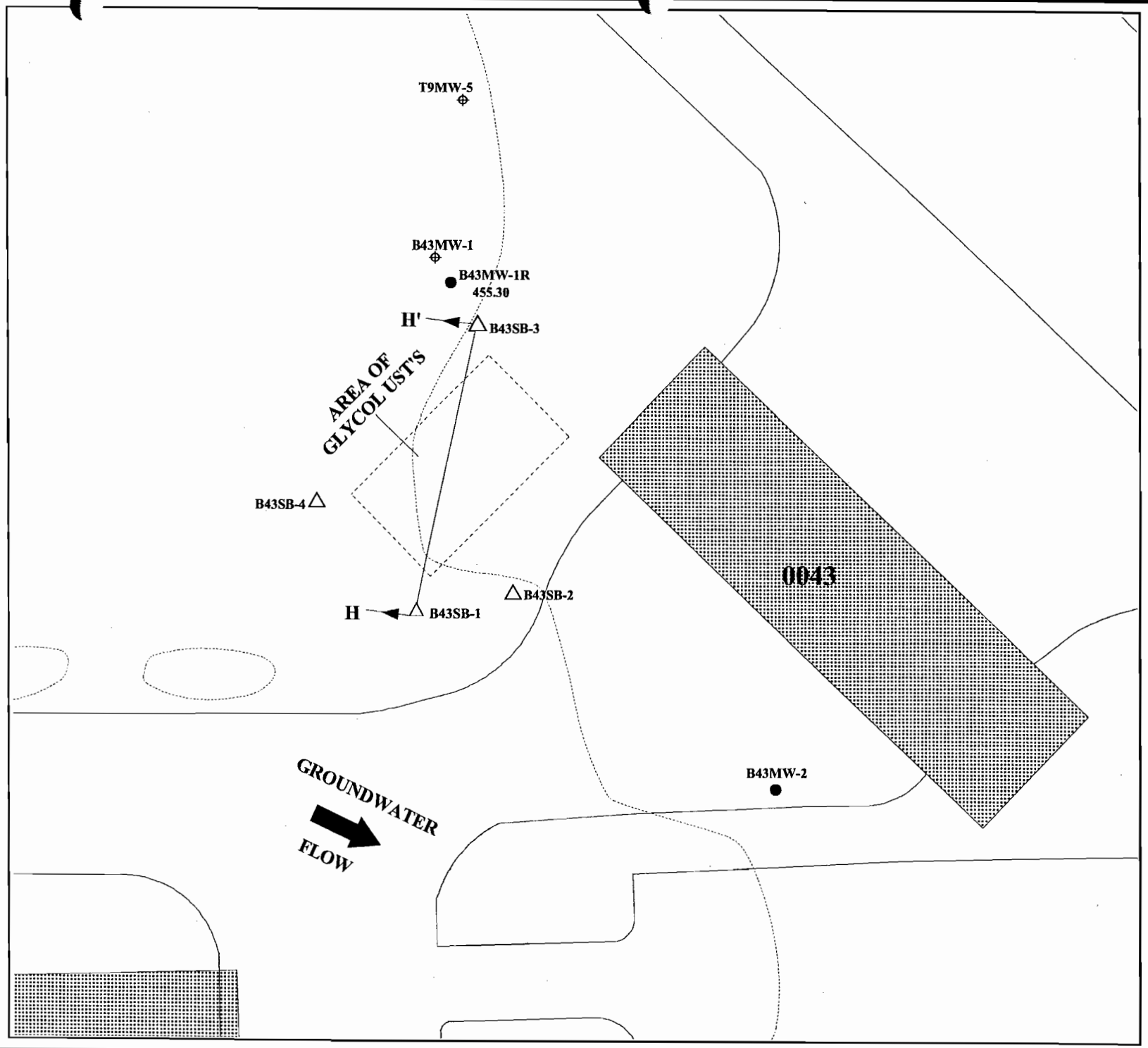
NOTE: SOIL BORING LOCATIONS WERE APPROXIMATED FROM THE RI, FIGURE 2.1, VOLUME 30, LAW, 1996.

N

50 0 50 100 Feet

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Figure 3-22
Building 220
Site Location Map



Building 43
Site Location Map

- Existing Well with ID & Dec. 1998 Water Level (optional)
- LTM Existing Well ID & Dec. 1998 Water Level (optional)
- RI Soil Boring/ Grab Groundwater Sample
- Roads
- Land Surface 5-ft Contours (values not shown)
- 0101 Building & Building No.

NOTE: SOIL BORING LOCATIONS WERE APPROXIMATED FROM THE RI, FIGURE 2.2, VOLUME 30, LAW, 1996.

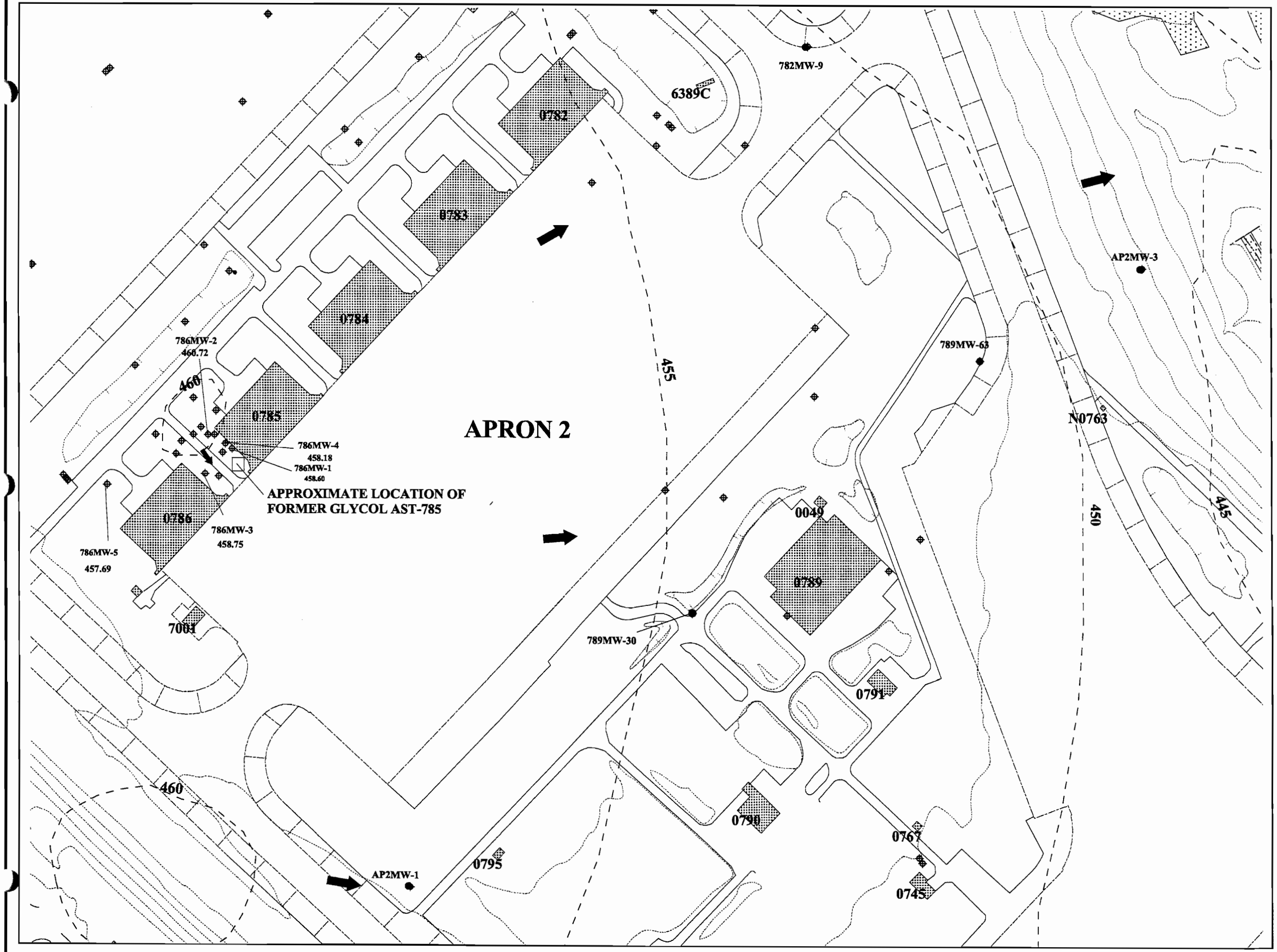
N

10 0 10 20 Feet

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Figure 3-23
Building 43
Site Location Map

Apron 2
Site Location Map



- Existing Well with ID & Dec. 1998 Well Water Level (optional)
- LTM Existing Well with ID & Dec. 1998 Water Level (optional)
- Streams
- Land surface 5-ft contour (values not shown)
- December 1998 5-ft water-level contour
- Airfield
- Roads
- 0181 Building & building no.
- Wetland area
- Groundwater Flow Direction

N

100 0 100 200 Feet

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Figure 3-24
Apron 2
Site Location Map

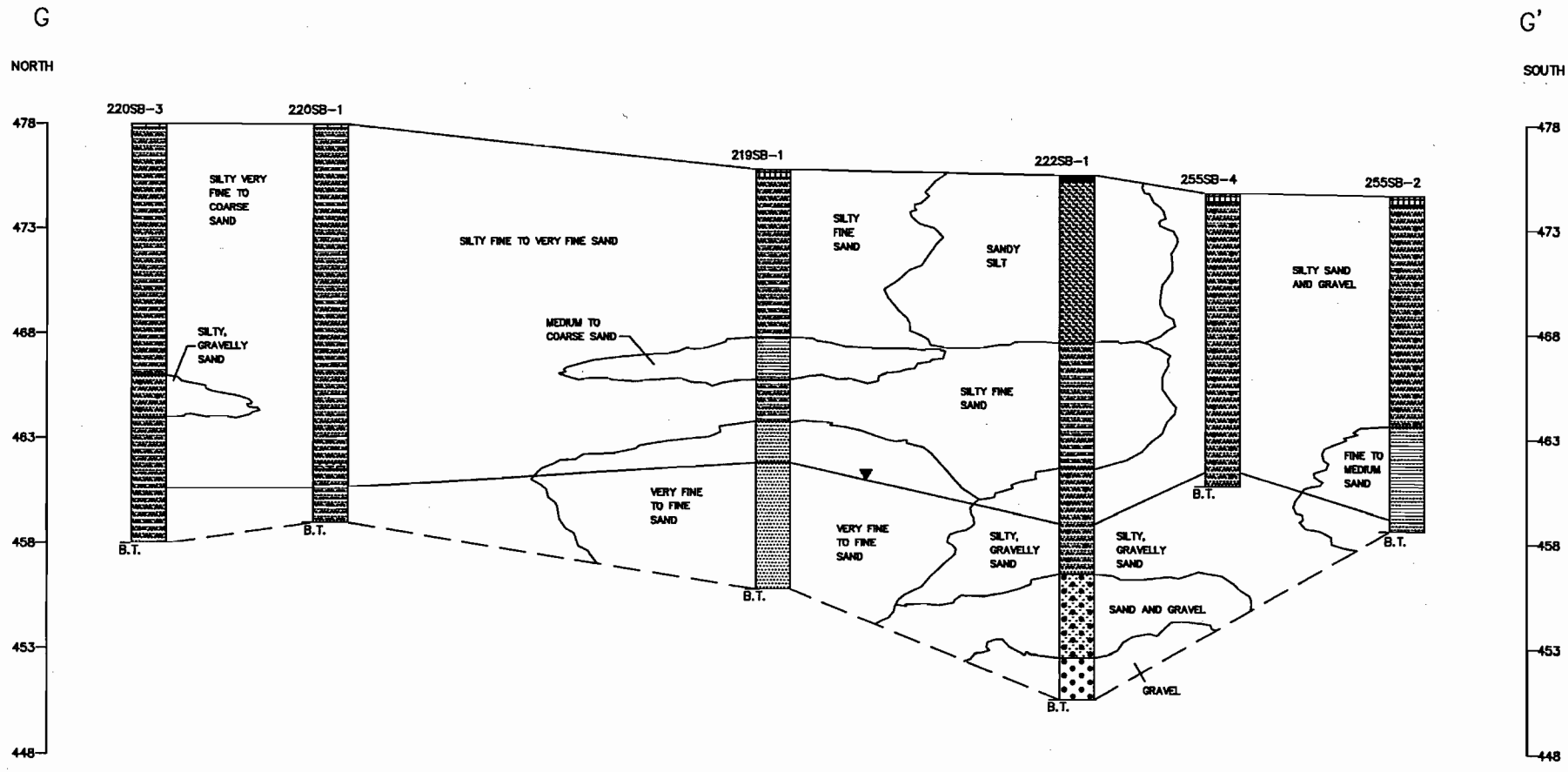
3.8.2 Hydrogeological Setting

The sites included in the Glycol Storage/Use AOC are located at Building 220, in a light industrial area in the southwest-central portion of the base; at Building 43, in the southeast-central industrial portion of the base; and at Apron 2, a former aircraft staging area in the southeast portion of the base. The topography at the three sites is relatively flat. The surface soils are generally described as silty, fine sand with variable quantities of gravel. The subsurface soils were generally silty, fine to coarse sand with variable quantities of gravel. Figures 3-25 and 3-26 illustrate the geological cross sections for Buildings 220 and 43 (G-G' and H-H') (Law, 1996). The soil underneath Apron 2 is characterized by dense soils consisting mainly of fine to medium sands with silt and occasional clay layering. During construction, approximately 15 feet of fill was added to the entire area; soil screening conducted during the Supplemental Investigation (Ecology and Environment, 1998) confirmed that the depth of fill material extended to 15 feet below ground surface. The dense soil is likely the result of thorough compaction of the fill material prior to the installation of the Apron 2 concrete pad.

Run-off from Building 220 is collected in the base storm drain system, which is channeled into the Mohawk River, located approximately 3,800 feet west of the Building 220. Run-off from Building 43 and Apron 2 is channeled into Six Mile Creek, located approximately 1,200 feet east of Building 43 and approximately 800 feet east of Apron 2.

Measurements collected during the December 1998 Base-wide synoptic included monitoring wells in each of the three Glycol Storage Areas, and were fairly uniform across each site. For Building 220, the groundwater depths varied from 17.71 feet bgs in monitoring well LAWMW-10 located in the north to 19.24 feet bgs in monitoring well LAWMW-13 to the south. The site-specific groundwater flow direction is to the south-southwest towards Three Mile Creek. In the vicinity of Building 43, the groundwater was measured at 11.73 ft bgs at monitoring well B43MW-1R, and the site-specific groundwater flow direction was observed to the southeast towards Six Mile Creek. At Apron 2, massive construction has altered the natural hydrology in the area of the Aprons, due to the dense soils underneath both Apron 2 and the Alert Apron to the southeast. Throughout most of Apron 2, the site-specific groundwater flow is generally to the east-northeast towards Six Mile Creek. However, the local groundwater flow direction is to the south-southwest in the vicinity of Building 786. During the Base-wide synoptic, groundwater was measured at 15.73 ft bgs at monitoring well AP2MW-2 (located adjacent to AP2MW-3, it has since been decommissioned). The groundwater depths are highly variable due to the effects of compaction on the construction of the Apron (FPM, 2000).

The RI (Law, 1996) reported average site-specific hydraulic conductivities (K) for each of the Glycol Storage Areas, which were 10 feet per day (ft/day) for Building 220, with a modeled



LEGEND:

- TOPSOIL
- ASPHALT
- CONCRETE
- WATER TABLE

NOTE: 1. THE CORRELATIONS SHOWN ARE INTERPRETED FROM FIELD DESCRIPTIONS OF STRATA ENCOUNTERED IN THE DEPICTED BORINGS. IN SOME CASES, CORRELATIONS EXTEND BETWEEN STRATA WHICH WERE NOT FULLY PENETRATED, FOR WHICH SAMPLE RECOVERIES WERE INSUFFICIENT FOR SOIL DESCRIPTION OR FOR WHICH SAMPLES WERE NOT COLLECTED. THE DEPTHS TO GROUNDWATER ENCOUNTERED DURING DRILLING ARE SHOWN FOR EACH BORING. THE WATER TABLE IS INTERPRETED BETWEEN THESE POINTS.

2. TAKEN FROM RI REPORT (LAW ENVIRONMENTAL, INC., 1994)

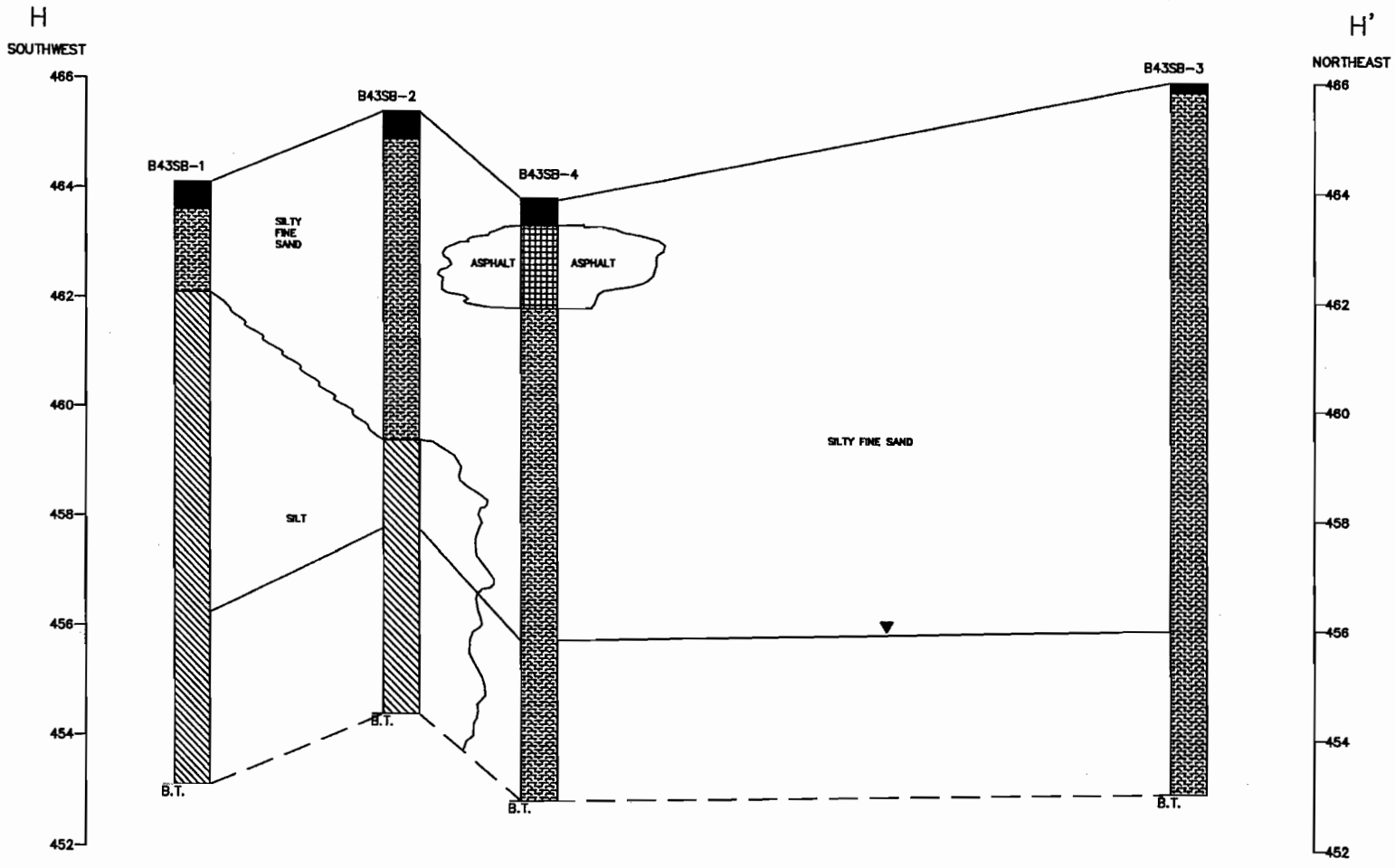
5
SCALE IN FEET
0 40

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FIGURE 3-25

INTERPRETED GEOLOGIC CROSS SECTION G-G'

B219 DRYWELL/B255 DRYWELLS/GLYCOL STORAGE AND USE AREAS



LEGEND:

TOPSOIL

WATER TABLE

NOTE: 1. THE CORRELATIONS SHOWN ARE INTERPRETED FROM FIELD DESCRIPTIONS OF STRATA ENCOUNTERED IN THE DEPICTED BORINGS. IN SOME CASES, CORRELATIONS EXTEND BETWEEN STRATA WHICH WERE NOT FULLY PENETRATED, FOR WHICH SAMPLE RECOVERIES WERE INSUFFICIENT FOR SOIL DESCRIPTION OR FOR WHICH SAMPLES WERE NOT COLLECTED. THE DEPTHS TO GROUNDWATER ENCOUNTERED DURING DRILLING ARE SHOWN FOR EACH BORING. THE WATER TABLE IS INTERPRETED BETWEEN THESE POINTS.

2. TAKEN FROM RI REPORT (LAW ENVIRONMENTAL, INC., 1994)

2

SCALE IN FEET

0 10

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FIGURE 3-26

INTERPRETED GEOLOGIC CROSS SECTION H-H'

GLYCOL STORAGE/ USE AREAS

hydraulic gradient of 0.004 feet per foot (ft/ft); 1.2 ft/day for Building 43, with a modeled hydraulic gradient of 0.011 ft/ft; and 3.1 ft/day for Apron 2, with a modeled hydraulic gradient of 0.0046 ft/ft. Estimating the porosity to be 20 percent at each of the sites, the groundwater flow rates for each site were calculated to be 73, 24, and 26 feet per year, respectively (Law, 1996).

3.8.3 Summary of Previous Groundwater Investigation Results

Glycols stored and utilized at Griffiss AFB were used as deicing fluids, vehicle antifreeze, and to prevent freezing of the Fuels Transport Aqua System. Most sites where glycol was used are relatively flat and paved with surface drainage occurring into the base storm drain system. Glycols were detected in one on-base monitoring well, HS2MW-2, and a number of off-base wells both upgradient and downgradient from the base, during the groundwater sampling and analysis effort conducted in 1991 (Law, 1991; Law, 1992). The total glycols analytical method used for this investigation was Method NYSDEC 89-9.

Glycol contamination in the groundwater across the base was also evaluated during the 1992-1993 quarterly groundwater sampling program (Final Summary Report, Quarterly Groundwater Sampling at Griffiss Air Force Base, New York, Law, 1994). Glycols were detected only during the second quarter of sampling in March 1993, at HS2MW-2 (0.23 J mg/L) and also at monitoring wells near Building 786, including 786MW-2 (0.15 J mg/L) and 786MW-3 (0.07 J mg/L), presumably as a result of the use of antifreeze (J indicates that the value was estimated). At monitoring well B43MW-1, which was included in the sampling program, no glycols were reported during the entire quarterly sampling program. (No wells associated with Building 220 were included in the program). Total glycols were analyzed using New York State Department of Health (NYSDOH) Method APC-44, which included confirmation analyses for all positive detections.

In accordance with the Federal Facility Agreement (FFA) and Resolution of Disputes between the Air Force, the U.S. Environmental Protection Agency (EPA), and the New York State Department of Environmental Conservation (NYSDEC), a Remedial Investigation (RI) was performed to evaluate the nature, levels, and extent of potential contamination at the Glycols Storage Areas AOC and perform a baseline risk assessment to evaluate the potential effects of chemicals of potential concern on human health and the environment. The RI activities at each area included the following: three soil borings/temporary wells were installed at Building 220, and included the collection of six soil (two from each boring) and three grab groundwater samples; four soils borings/temporary wells were installed at Building 43 and four grab groundwater samples were collected; and two permanent monitoring wells were installed at Apron 2 and included the collection of two groundwater samples. The analytical method used for glycols in this effort was Method NYSDOH APC-44. Because ethylene glycol does not readily sorb to soil, soil contamination was not considered to be an issue at the Building 43 and Apron 2 sites.

The results of the RI (from samples collected in June 1994) reported that glycols were found in each of the soil samples and groundwater samples collected at Building 220; total glycol concentrations exceeded potential applicable or relevant and appropriate requirements (ARARs) in each of the groundwater samples, ranging from 0.1 to 0.24 mg/L (there is no applicable standard for total glycols in soils). (The ARARs were formulated by considering the most stringent criterion among state and/or federal standards for the groundwater matrix, and corresponded to 0.05 mg/L, the NYSDEC Guidance Value for ethylene glycol.) 220HP-02 (0.1 J mg/L in June 1994) was resampled in April 1995, and the reported total glycols concentrations also exceeded ARARs in one of the duplicate samples (0.17 mg/L). Total glycols were also found at levels exceeding potential ARARs in three of the four groundwater samples at Building 43, ranging from 0.08 to 0.21 mg/L, and in the monitoring well samples collected from AP2MW-3 at Apron 2. The total glycols concentrations reported in AP2MW-3 were 0.08 mg/L in October 1994, and 0.26 mg/L (initial run) and 1.63 mg/L (confirmatory run) in April 1995. Glycols were not detected in AP2MW-1.

Total glycols levels in soil samples collected at Building 220 ranged from 3.8 J to 56 J mg/kg (J is a laboratory qualifier indicating that the levels are estimated).

Total glycols were also measured during the RI at the Building 786 AOC. No glycols were detected in wells 786MW-1 through 786MW-4 sampled in August 1994, nor in 786MW-5 sampled in April 1995.

3.8.4 Conceptual Site Model for Groundwater Flow and Land Use

The limited CSM specific to glycol detections at the Glycol Storage/Use AOC is described in Table 3-19. Possible contaminant sources at this AOC include the reported antifreeze releases from base vehicles west of Building 220, the glycol USTs at Building 43, and the aircraft deicing procedures near Apron 2. Presently, only the glycol USTs at Building 43 remain as a possible continuing source, although no evidence of leakage was observed during a soil investigation conducted in the vicinity of these USTs (PEER, 1998). The primary transport pathway for glycols detected at these sites is through infiltration and percolation to deeper soils and groundwater. Because the soils in these areas are largely composed of sandy alluvial deposits, the vertical percolation of glycols to groundwater would be the likely result of spills. Also, glycols released onto aprons and runways during deicing of aircraft may have been transported to storm drains in surface water runoff which discharge to Six Mile Creek and the Mohawk River, or Three Mile Creek. Ethylene glycol does not adsorb to either soils or sediments and rapidly degrades in groundwater and surface water. The half-life in groundwater is expected to range from 4 to 24 days (Law, 1996).

Because inhalation slope factors were unavailable for total glycols, quantitative risk estimates for exposure to glycols could not be quantified for inhalation exposure pathways in the RI (Law, 1996). Also, excess cancer risk associated with exposure to glycols was not calculated

since glycols are not classified as carcinogens (Law, 1996). However, for the dermal contact with groundwater and ingestion of soils pathways, hazard quotients for noncarcinogenic health effects were calculated for exposure to total glycols based on reference doses for ethylene glycol (utility worker – ingestion of soil, construction worker – ingestion of soil, industrial worker – dermal contact with groundwater). Each of the hazard quotients was well below the target level of 1.0. Although the Base is connected to a municipal water supply, the exposure pathways for the ingestion of groundwater were considered for the industrial worker should groundwater be used as a potable water supply in the future, or for industrial purposes. Each of the resulting hazard quotients was below the target value of 1.0.

The future land use for this site is industrial. Property transfer documents include a global groundwater restriction that states that "the owner shall not extract, utilize, or consume, or permit to be extracted, any water from the aquifer below the surfaces of the ground within the boundary of the property unless such groundwater has been tested and found to meet all applicable standards."

The ecological risk assessment performed during the RI concluded that there was no unacceptable risk to ecological receptors because the hazard quotients for the shrew and the raccoon that were calculated were well below the target level of 1.0. (Hazard quotients were calculated for potential exposure to glycols for each indicator species).

3.8.5 Glycol Storage/Use LTM Plan

Table 3-20 summarizes the LTM sampling and analysis plan. The site features and groundwater monitoring wells are illustrated in Figures 3-21, 3-22, and 3-23. The LTM design, including identification of the DQOs, is discussed below in detail.

LTM Need – Total glycols were measured above the detection limit and above ARARs in groundwater at seven of the nine locations sampled during the RI. One additional round of sampling is recommended to confirm the presence of glycols associated with this AOC and to evaluate the magnitude of these levels relative to ARARs. To this end, ethylene and propylene glycol analysis will be performed by use of a gas chromatographic method (EPA Method 8015 (Modified)), which will allow for direct comparison of the levels of ethylene glycol to ARARs, which are of particular concern. (No ARARs are currently available for propylene glycol.) The QC criteria specific to ethylene and propylene glycol for Method 8015 (Modified) are provided in Attachment A.

LTM Objectives – Initially, one round of sampling of the groundwater monitoring wells in each of the sites associated with the Glycol Storage/Use AOC is recommended to determine whether ethylene and propylene glycols are still present at levels of concern.

Table 3-19 Glycol Storage/Use AOC Conceptual Site Model

Contaminants 1992-1993 Quarterly Sampling (Law, 1994)	Contaminants and Contaminated Media (RI, Law, 1996)	Migration Pathway	Exposed Population	Risk Assessment Results Noncarcinogenic Hazard Quotients (RI, 1996)
Groundwater Total Glycols 0.05J – 0.15J mg/L (Results from wells 786MW-2 and 786MW-3 only)	**Groundwater** Total Glycols 0.08 – 0.24 mg/L **Soil** Total Glycols 3.8 J – 56 J mg/kg (Results from Glycol Storage/Use AOC only)	Glycols will percolate through the soil down to the groundwater table, where they are expected to have half-lives of 4 to 24 days (Law, 1996), or alternatively be transported via surface water run-off to Six Mile Creek (from Building 220 and Apron 2) or Three Mile Creek (from Building 43) where the concentrations at the point of discharge to the surface water would likely be diminished due to the effects of dilution and biodegradation.	Groundwater use restrictions will limit exposure of industrial workers to chemicals in groundwater through ingestion, dermal contact, and inhalation of VOCs if groundwater is used for process water (Law, 1996). Base groundwater use restrictions within AOC to minimize exposure pathways are an ongoing management consideration of LTM.	**Soil** *Utility Worker* Ingestion (Bldg 220): 4.28×10^{-6} *Construction Worker* Ingestion (Bldg 220): 1.32×10^{-4} **Groundwater** *Industrial Worker* Dermal Contact (Bldg 220): 6.22×10^{-7} Dermal Contact (Bldg 43): 5.45×10^{-7} Dermal Contact (Apron 2): 6.74×10^{-7} Ingestion (Bldg 220): 1.17×10^{-3} Ingestion (Bldg 43): 1.03×10^{-3} Ingestion (Apron 2): 1.27×10^{-3} **Ecological Risk (Exposure to Total Glycols in Soil)** Short-Tailed Shrew: 4.25×10^{-4} Raccoon: 5.88×10^{-7}

Table 3-20 Glycol Storage/Use AOC LTM Sample Analysis Summary

Site/ Sampling Locations	Screen Interval Depth (ft bgs)	Sampling Rationale	Target Analytes/ EPA Method Numbers	Matrix	# of Samples[1]	Sampling Frequency	Evaluation Criteria
Building 220		----------	• Ethylene Glycol and Propylene Glycol – EPA Method 8015B	Water	11	One-time	If downgradient wells exceed ARARs or upgradient concentrations, evaluate monitoring frequency and number of wells. Otherwise, seek no further action decision for AOC.
LAWMW-10	13' – 23'	Upgradient from source					
255VMW-1	15' - 30'	Downgradient from source					
255VMW-2	16' – 29'	Downgradient from source					
TCVMW-1	20' - 32'	Downgradient from source					
	Depth to groundwater ranges from 17.5 to 20 ft bgs.						
Building 43		----------					
B43MW-1R	6' – 16'	Upgradient from source					
B43MW-2	2.4' – 12.4'	Downgradient from source					
	Depth to groundwater ranges from 7.8 to 11.7 ft bgs.						
Apron 2		----------					
AP2MW-1	7' – 17'	Crossgradient from source					
782MW-9	15' – 30'	Downgradient from source					
789MW-63	16' – 26'	Downgradient from source					
AP2MW-3	19' – 33.6'	Downgradient from source					
789MW-30	14' – 24'	Downgradient from source					
	Depth to groundwater in the vicinity of Apron 2 ranges from 14 to 25 ft bgs.						

1 Please refer to FSP for details concerning the number of quality assurance/quality control (QA/QC) samples and their locations. At least one matrix spike/matrix spike duplicate (MS/MSD) and two field duplicates will be collected per sample delivery group (SDG); one equipment blank per day and one ambient blank per day; one trip blank per cooler containing VOCs.

Inputs to LTM Decision –Sampling for ethylene and propylene glycols only is recommended at the following existing monitoring well locations: at Building 220, upgradient well LAWMW-10 and downgradient wells 255VMW-1, 255VMW-2, and TCVMW-1; at Building 43, upgradient well B43MW-1R and downgradient well B43MW-2; and at Apron 2, crossgradient well AP2MW-1 (south of Apron 2), and downgradient wells 789MW-30 (downgradient from southwest section of Apron 2), 782MW-9 (downgradient from the northeast section of Apron 2), 789MW-63 (just east/downgradient from Apron 2) and AP2MW-3 (further east/downgradient from Apron 2). Sampling at monitoring wells associated with Building 786 was not deemed necessary since total glycols results were non-detect during the RI sampling.

LTM Extent – Given the relatively low concentrations detected, coupled with the fact that the RI samples were collected more than five years ago, a single round of monitoring is initially recommended to evaluate the current conditions.

LTM Re-evaluation Criteria – If ethylene glycol concentrations in any monitoring wells exceed ARARs, the results will be discussed with the agencies (EPA and NYSDEC) to determine the next course of action. Additional rounds of sampling may be recommended to assess possible seasonal fluctuations on the results. However, should results indicate that the levels are below ARARs, a no further action decision will be pursued for the AOC, with the contention that there is no remaining source of glycol contamination that poses a current or potential threat to human health or the environment.

Acceptable Limits on Decision Errors – Decisions will be made based on data collected in accordance with the FSP associated with the AOC LTM Baseline Study WP (FPM, 1998) and analyzed by the laboratory in accordance with the AFCEE QAPP (including associated project-specific variances). The data will then be reviewed and validated based on an evaluation of the results in relation to the AFCEE QAPP in conjunction with the EPA National Functional Guidelines. The AFCEE QAPP specifies accuracy and precision objectives while the EPA National Functional Guidelines provide data usability guidance.

Optimize the Design – The LTM plan for the Glycol Storage/Use AOC may be re-evaluated should results indicate that continued monitoring is required. LTM optimization will specifically serve to accurately monitor plume behavior with the fewest number of wells and lowest sampling frequency necessary.

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ATTACHMENT A

QC CRITERIA FOR EPA METHOD 8015 (Modified)

7.2.2 Method SW8015 (Modified)-Volatile and Extractable Total Petroleum Hydrocarbons

Volatile petroleum hydrocarbon components, such as gasoline, jet fuel, and other low molecular weight petroleum products, are analyzed by the direct purge and trap technique described in method SW5030B followed by a modified approach to method SW8015. Extractable TPH components are analyzed by extraction method SW3520C or SW3550B followed by a modified method SW8015.

For volatile TPH, the sample is placed in the purge and trap sparge vessel and analysis is conducted using a GC equipped with a FID.

Extractable TPH components, such as kerosene, diesel, motor oil, and other high molecular weight extractable petroleum products, are analyzed by method SW3520C* (continuous liquid/liquid extraction) for water-based matrices or by method SW3550B (sonication extraction) for soil/sludge matrices. The sample is extracted and analysis is accomplished on a GC equipped with a capillary or megabore column and a FID. RLs for volatile TPH and extractable TPH are provided in Table 7.2.2-1.

Identification and quantitation of TPH components require more analytical judgment than other GC methods. The TPH chromatograms consist of groups of peaks that fall within a noted carbon retention time range (i.e., number of carbon atoms in the molecule). Standard fuel components are used to calibrate the instruments. The total petroleum hydrocarbons results are reported in mg/kg or mg/L based on quantitation of the total area count for the gasoline range organics (i.e., C6-C10) or the diesel range organics (i.e., C10-C28). The retention time window shall be set such that the window encompasses only the C6 through C28 range of organics. The calibration, QC, corrective action, and data flagging requirements are given in Tables 7.2.2-2 and 7.2.2-3. Second column confirmation is not required.

* STL – Buffalo utilizes Method SW3510C-Separatory Funnel Liquid-Liquid Extraction for extractable TPH components.

Table 7.2.2-1. RLs for Method SW8015 (Modified)

Parameter/Method	Analyte	Water		Soil	
		RL	Unit	RL	Unit
Petroleum Hydrocarbons SW8015 (Mod)	Gasoline	0.1	mg/L	1.0	mg/kg
	Diesel	1.0	mg/L	10.0	mg/kg
	Jet Fuel	1.0	mg/L	10.0	mg/kg

The following table indicates reporting criteria for STL - Buffalo

Parameter/Method	Analyte	Water		Soil	
		RL	Unit	RL	Unit
Glycols SW8015 (Mod)	Ethylene Glycol	20.0	mg/L	10.0	mg/kg
	Propylene Glycol	20.0	mg/L	10.0	mg/kg

Table 7.2.2-2. QC Acceptance Criteria for Method SW8015 (Modified)

Method	Analyte	Accuracy Water (% R)	Precision Water (% RPD)	Accuracy Soil (% R)	Precision Soil (% RPD)
SW8015 (Modified) GRO	TPH–Gasoline	67–136	≤ 30	57–146	≤ 50
	Surrogate:				
	Chlorobenzene	74–138		64–148	
SW8015 (Modified) DRO	TPH–Diesel	61–143	≤ 30	51–153	≤ 50
	TPH–Jet Fuel	61–143	≤ 30	51–153	≤ 50
	Surrogates ~~(choose 2)~~:				
	~~Octacosane~~	~~26–152~~		~~25–162~~	
	Ortho-Terphenyl	57–132		47–142	
	~~Fluorobenzene~~	~~75–125~~		~~65–135~~	
	~~Tricontane~~	~~40–140~~		~~30–150~~	

The following table indicates reporting criteria for STL - Buffalo

Method	Analyte	Accuracy Water (% R)	Precision Water (% RPD)	Accuracy Soil (% R)	Precision Soil (% RPD)
SW8015 (Modified) Glycols	Ethylene Glycol	64-141	≤ 30	60-159	≤ 30
	Propylene Glycol	64-125	≤ 30	65-127	≤ 30
	Surrogate:				
	1,4-Butanediol	40-138		43-142	

Table 7.2.2-3. Summary of Calibration and QC Procedures for Method SW8015 (Modified)

Method	Applicable Parameter	QC Check	Minimum Frequency	Acceptance Criteria	Corrective Action[a]	Flagging Criteria[b]
SW8015 (mod)	Volatile and Extractable Total Petroleum Hydrocarbons	Five-point initial calibration for all analytes	Initial calibration prior to sample analysis	linear - mean RSD for all analytes ≤20% with no individual analyte RSD >30%	Correct problem then repeat initial calibration	Apply R to all results for specific analyte(s) for all samples associated with the calibration
				linear - least squares regression r > 0.995		
				non-linear - COD ≥ 0.990 (6 points shall be used for second order, 7 points shall be used for third order)		
		Initial calibration verification	Daily, before sample analysis	All concentration levels of GRO within ±15% of expected value	Correct problem then repeat initial calibration	Apply R to all results for specific analyte(s) for all samples associated with the calibration
		Calibration verification	After every 10 samples and at the end of the analysis sequence	All concentration levels within ±15% of initial calibration	Correct problem then repeat initial calibration verification and reanalyze all samples since last successful calibration verification	Apply R to all results for the specific analyte(s) in all samples since the last acceptable calibration verification
		Demonstrate ability to generate acceptable accuracy and precision using four replicate analyzes of a QC check sample	Once per analyst	QC acceptance criteria, Table 7.2.2-2	Recalculate results; locate and fix problem with system and then rerun demonstration for those analytes that did not meet criteria	Apply R to all results for all samples analyzed by the analyst

Table 7.2.2-3. Continued

Method	Applicable Parameter	QC Check	Minimum Frequency	Acceptance Criteria	Corrective Action[a]	Flagging Criteria[b]
SW8015 (mod)	Volatile and Extractable Total Petroleum Hydrocarbons	Method blank	One per analytical batch	No TPH detected ≥ RL	Correct problem then reprep and analyze method blank and all samples processed with the contaminated blank	Apply B to all results for the specific analyte(s) in all samples in the associated analytical batch
		LCS for all analytes	One LCS per analytical batch	QC acceptance criteria, Table 7.2.2-2	Correct problem then reprep and analyze the LCS and all samples in the affected AFCEE analytical batch	For specific analyte(s) in all samples in the associated analytical batch; if the LCS %R > UCL, apply J to all positive results if the LCS %R < LCL, apply J to all positive results, apply R to all non-detects
		Surrogate spike	Every sample, spiked sample, standard, and method blank	QC acceptance criteria, Table 7.2.2-2	Correct problem then reextract and analyze sample	For the samples; if the %R > UCL for any surrogate, apply J to all positive results if the %R < LCL for any surrogate, apply J to all positive results, apply R to all non-detects If any surrogate recovery is < 10%, apply R to all results

Table 7.2.2-3. Concluded

Method	Applicable Parameter	QC Check	Minimum Frequency	Acceptance Criteria	Corrective Action[a]	Flagging Criteria[b]
SW8015 (mod)	Volatile and Extractable Total Petroleum Hydrocarbons	MS/MSD	One MS/MSD per every 20 Air Force project samples per matrix	QC acceptance criteria, Table 7.2.2-2	none	For the specific analyte(s) in all samples collected from the same site matrix as the parent, apply M if; (1) %R for MS or MSD > UCL or (2) %R for MS or MSD < LCL or (3) MS/MSD RPD > CL
		Retention time window calculated	Each initial calibration	GRO - calculate retention time based on 2-methylpentane and 1,2,4-trimethylbenzene (see 7.4.2 in method)	Correct problem then reanalyze all samples analyzed since the last retention time check	Apply R to the result for EDB in the sample
				DRO - calculate retention time based on C10 and C28 alkanes (see 7.4.3 in method)		
		MDL study	Once per 12 month period	Detection limits established shall be ≤ ½ the RLs in Table 7.2.2-1	none	Apply R to all results for the specific analyte(s) in all samples analyzed
		Results reported between MDL and RL	none	none	none	Apply F to all results between MDL and RL

a. All corrective actions associated with AFCEE project work shall be documented, and all records shall be maintained by the laboratory.
b. Flagging criteria are applied when acceptance criteria were not met and corrective action was not successful or corrective action was not performed.

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DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

MEMORANDUM FOR: SEE ATTACHED DISTRIBUTION LIST

FROM: Michael F. McDermott
BRAC Environmental Coordinator
Co-Chairman, Restoration Advisory Board
AFBCA/DA-Griffiss
153 Brooks Road
Rome, New York 13441-4105

SUBJECT: Minutes: Restoration Advisory Board Meeting of June 06, 2000.

1. Attached are minutes of the Restoration Advisory Board Meeting of June 06, 2000.

2. If you have any questions or concerns, please feel free to contact me at 315-330-2275.

for Michael F. McDermott
BRAC Environmental Coordinator
RAB Co-Chairman

Attachments: 1. Distribution List
2. RAB Minutes with attachments

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JG

SEP 26 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Rome, NY 13441-4105

Re: Revised Finding of Suitability to Lease (FOSL) for Parcel F12A

Dear Mr. McDermott:

EPA has reviewed the Revised Finding of Suitability to Lease ("FOSL") and Supplemental Environmental Baseline Survey ("SEBS") for Parcel F12A, dated August 24, 2000, as well as the Air Force's Response to Comments on the forementioned documents. Upon review of these documents and supporting data, the EPA has found that the documents are acceptable and the property is suitable for the intended purpose stated in the FOSL.

The FOSL indicates the future use of this property to be industrial/commercial/non-residential. Our review of the environmental condition of the property indicates that the environmental factors pose no concern with this intended future use. However, should the use change from that outlined in your FOSL, please note additional review may be necessary.

Sincerely,

Robert Wing, Chief
Federal Facilities Section

cc: J. Greco, NYSDEC
S. DiMeo, Executive Director (GLDC)

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

September 25, 2000

Mr. Michael J. O'Toole, Jr.
Director
Division of Environmental Remediation
NYS Dept. of Environmental Conservation
50 Wolf Rd., Room 260B
Albany, NY 12233-7010

Re: Proposed Plan for Landfill 6
Griffiss Air Force Base
Site ID #633006
(C) Rome, Oneida County

Dear Mr. O'Toole:

My staff have reviewed the September 2000 Proposed Plan for Landfill #6 at the former Griffiss Air Force Base in Rome. Based on that review, I understand that the preferred remedial action includes capping with a Part 360 soil cap, deed restrictions to preclude inappropriate use of the landfill area and the groundwater, and long term monitoring of environmental media. In addition, the plan states that if leachate discharges are observed during routine walkovers, leachate management will be considered.

With these actions, I believe that the remedy is protective of public health. If you have any questions, please call me or Michael Rivara at (518) 402-7850.

Sincerely,

G. Anders Carlson, Ph.D., Director
Bureau of Environmental Exposure Investigation

cc: N. Kim, Ph.D.
Mr. M. Rivara/FILE
Ms. H. Hamel
Mr. N. DeRosa – Oneida County Health Dept.
Mr. D. Sweredoski – DEC – Region 6

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SEP 28
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

19 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

Re: Areas of Concern Off - Base Groundwater

Dear Mr. McDermott:

With this letter I am notifying the Air Force of a change to the Area of Concern classification at Griffiss AFB. After discussions with you and the New York State Department of Environmental Conservation (NYSDEC), we have unanimously agreed the Off Base Groundwater (OBGW) Area of Concern (AOC) should be combined with the On Base Groundwater AOC to make one AOC, entitled Griffiss Groundwater AOC.

Previously, the OBGW AOC and On-Base GW AOC have been managed as two independant AOC's. This two AOC arrangement was based upon limited knowledge of the site and allow the Air Force to simplify its funding process for AOC investigations whether they were on base or off base. However, now that substantial data is available and all parties (AF, NYSDEC and EPA) agree that the Off-Base GW AOC is not a source of contamination, the site will be addressed within the confines of the new Griffiss GW AOC.

Please note although there is no longer an OBGW AOC, the Air Force is still responsible to remediate off-base contamination should future investigations indicate that remediation is required. If any off-base remediation is determined to be necessary it will be evaluated and addressed under a site specific (e.g., AOC or AOI) remedial program.

Should you have any questions, please contact Douglas Pocze, of my staff, at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Project Manager

cc: J. Greco, NYSDEC

Item No.	Comment	Discussion	Resolution
1	Due to the layers of asphalt, NYSDEC Recommended deleting the Semi-VOC analysis for the 0-6 " interval.	PAHs will show in the first samples and it is not necessary to have to explain that it is due to the materials in the asphalt.	This has been been incorporated into the sample matrix. The 0-6" sample will not be analyzed for semi-VOCs beneath asphalt. PCB's will be included.
2	The Rod storage vault description should include the fact that the vault has a concrete bottom and that it was used to store incoming fuel and not contaminated or used fuel.	Clarification is needed.	This has been incorporated into the text of the SAP
3	There should be more validation of samples.	Briefly discussed here and continued and resolved later.	Data usability reviews on radionuclide results will be conducted as described in Items 14 and 15.
4	From the SAP it is difficult to determine the number of samples to be taken and where, and the types of analysis to be performed on what. For example, Refer to Table 1, Lead and Hg analyses, None which conflicts with text. Also, Table 1 and appendix A do not match.	Briefly discussed here, need to provide table and insure the table agrees with the text.	A table similar to that provided at the SAP briefing has been included as Table 2.
5	It was recommended that we perform a visual inspection of the canal surface to identify any other potential areas, cracks, which may be indicative of leakage of water from the canal.	The surfaces of the canal are contaminated and the background too high to perform a radiological survey to determine if a crack in the canal floor provided a leakage path for water.	The canal surfaces will be visually inspected before the fixative is applied to evaluate the possibility that cracks in the canal surface allowed leakage of water from the canal other than the canal seam/joint.
6	In the text, remove the IF and Then statements.	If the sample plan is going to take samples in these locations just state it.	The text has been changed. The If and Then statements have been removed and the sample locations stated.

Item No.	Comment	Discussion	Resolution
7	When will characterization information be available? How will it be presented?	The characterization is scheduled to take place beginning in July and is to finish in late August. Information can be added to the weekly reports. The information will be part of the EE/CA to be prepared. Should a time critical action be performed, a characterization report will be prepared.	Information will be placed in the weekly reports. A separate characterization report will not be prepared. The information will be part of the EE/CA that will be prepared for the Canal and Water Treatment Houses. Another meeting will be set up to review the data.
8	Will all 5 borings be performed in the canal?	Yes.	SAP was be clarified.
9	SCDHS suggested pressure testing the D -lines.	This will tell you the integrity of the line. Determine if there is any existing leakage paths.	This will be considered as the system piping is characterized.
10	Correlation factors between screening analyses (i.e. ISOCS & Betascint) need to be used.	Differences between screening analysis results and an off-site laboratory result needs to acknowledged.	ISOCS correlation factors will be used. Differences (correlations) will be discussed with presentation of data.
11	ISOCS will be used to screen samples. ASTD presented ISOCS and Beta Scint data and laboratory data correlation, and product information on the alpha spectroscopy unit the Analytical Services Laboratory is installing.	These systems will be used for screening samples along with typical HP instrumentation, GM pancake probes and sodium iodide detectors.	These instruments will be used for screening samples.
12	Are there going to be any water samples taken during the geoprobe? If water samples are taken we need to know if the sample is a filtered sample or not filtered.	We do not anticipate that water samples will be taken using the geoprobe. However, if there are water samples taken we will designate the samples as filtered or not filtered as the case may be.	Groundwater samples will be attempted to be obtained during geoprobe sampling and will be labeled as filtered or not filtered samples. Samples will be analyzed for gross alpha and beta and Sr-90 by the the BNL ASL laboratory.

Item No.	Comment	Discussion	Resolution
13	Data from areas where no further action is required must be defensible to support the ROD.	The area designated to be characterized is large enough to contain the contamination. This means that there is expected to be areas from the boundary into the contamination that will not require remediation. In these areas, the sample data must be defensible.	The SAP for the characterization, including onsite and off site sampling is being performed using ERD environmental laboratories, ERD approved procedures and protocol for off-site sample analyses, chain of custody, sample collection and validation.
14	There should be 100% validation for all off site samples of areas that require no further remediation.	Sample data that indicates that there is no further remediation required should be validated to insure it is defensible data to support ROD.	See below discussion.
15	There needs to be a better way to state the number of samples that will be sent off site for analysis and validation? 20% is not acceptable for positive samples.	We can't say that we will only send off positive samples or that we will only send off site background samples. There is a work modification procedure that can be used to make changes in the plan if there is sufficient justification. This may be in the form of sample analysis and data evaluation.	After biased surface soil analyses are performed, the off-site analysis and validation will be biased to areas that do not require remediation. The plan has been modified to state that 35 to 40% of the samples that are screened to be between .5 and 1.5 times the cleanup goal will be sent off site for lab analysis with 100% validation. Additionally, 5% of the screened samples which are greater than 1.5 times the cleanup goal will be sent off site for laboratory analysis with 100% validation. A table has been added that shows the numbers and types of samples and analyses planned as was done for the presentation. This provides a clearer picture for the work proposed. The ERD work modification procedure (i.e. ECN) will be used to document changes in the plan. Changes will be faxed out to regulators.

Item No.	Comment	Discussion	Resolution
16	There needs to be a rational for the surface soil samples for metals and hazardous materials?	The characterization plan methodology is to take samples using a biased and a systematic approach. This should also apply to metals and hazardous contaminants. Biased surveys should be performed outside of the access door areas to building 701 and the canal building 709, and at low lying areas including the base of the storm drains in the survey area and the corings associated with the structures. A bias survey should also apply to deep soil samples in these areas. If no chemicals, are identified then no additional samples are needed.	The plan has been modified to address the metals and hazardous materials sampling. A bias survey has been designated for surface soil samples from areas outside of access doors in the survey area, low points in the survey area, and storm drains and from corings associated with the structures (canal, water treatment house, etc.). If metals and hazardous materials are not identified, then no additional samples will be taken.
17	When and how will it be determined to perform the work using a time critical or non time critical action memorandum?	The characterization data will be used in the EE/CA to develop and evaluate alternatives for the planned remediation. If, during the characterization effort and preparation of the EE/CA, the potential for the further spread of contamination is identified or it becomes apparent that there is only one real alternative (i.e. removal), a decision may be made to pursue a time critical removal action. If not, then the EE/CA will present the alternatives and the non time critical removal action memorandum will be used. We do not want to usurp the public input for these activities.	See discussion. In any case the project will insure the public, stakeholders and the regulators are adequately informed of and will have input to any remediation process proposed for the remediation activity. Existing stakeholder mechanisms (BER, CAC, BGRR Working Group, *cleanupdate*, etc.) will be used to keep the public informed.
18	Characterization of the piping systems, manways, sumps etc. need to be clarified in the plan.	The piping systems will be characterized, internally and externally as appropriate.	Section 4.4.1.3 Below Grade Piping systems has been revised to clearly state what characterization will be performed on which systems.

marsden

copies to Section Chief
original to SE

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518) 485-8404
Website: www.dec.state.ny.us



John P. Cahill
Commissioner

MEMORANDUM

TO: DER Bureau Directors
FROM: Michael J. O'Toole, Jr., Director, Division of Environmental Remediation
SUBJECT: **DER Data Coordinator Workgroup's Organization, Roles and Responsibilities**
DATE: SEP 11 2000

This Memorandum outlines the roles and responsibilities of the Data Coordinator Workgroup in the Division of Environmental Remediation. It also defines the mission and the organization of the workgroup for shaping the information management strategy of the Division.

Workgroup's Mission Statement

The mission of the DER Data Coordinators is to improve the Division's productivity and effectiveness by:

1. Insuring Division staff's access to all relevant data systems to get their job done.
2. Helping the Information Management Unit to develop a state-of-the-art information management infrastructure.
3. Coordinating the implementation and training of new data systems.

Workgroup's Organization

The Data Coordinator Workgroup will be comprised of at least one member from each bureau in the Division. Some bureaus may have two representatives in the workgroup to split the responsibilities. Current workgroup members are Koon Tang, Martin Feit, Edward Belmore, Eric Hausamann, Dennis Farrar, George Harris, Joseph Yavonditte, Sally Dewes, and Tracy Smith.

The list of data coordinators may be expanded or changed by the Bureau Directors at any time. Notification via email or a memo to the workgroup leader, Koon Tang will be required to make the changes. The workgroup leader will convene meetings, decide meeting agenda and keep the management informed of the progress of the workgroup's efforts.

Roles of the Bureau Data Coordinators

The Data Coordinators should give full participation to the workgroup's meetings. Their contribution to the workgroup is to discuss and arrive at a consensus of various issues which pertain to the office automation initiatives and information management strategy of the Division. The members can also suggest topics and issues for discussion. Besides coming to the meetings, the Data Coordinators will be responsible for the following tasks:

1. Install and set up new computers.
2. Install New Software.
3. First line hardware/software troubleshooting.
4. Ordering standard software and hardware peripheral.
5. Coordinate new data systems training within the bureau.

Roles and responsibilities of the Information Management Unit

The key role of the Information Management Unit in the Division is to develop and maintain data systems to meet the information management needs of the Division. Besides data systems development and maintenance, the unit is also responsible for the following tasks:

1. Coordinate Data Coordinators Workgroup meetings.
2. Liaison with the Division of Information Services.
3. Dissemination of troubleshooting and problem solving information.
4. Data systems training.
5. Coordinate computer hardware and software bulk purchases.
6. Ordering of non-standard software.
7. Calling for computer hardware repair services.
8. Computer network maintenance and new user ID requests.
9. Act as Data Coordinator for the Division Directors' office.

cc: T. Quinn

file

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518) 485-8404
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

SEP 11 2000

Mr. Richard Caspe
Director
Emergency & Remedial Response Division
United States Environmental Protection Agency
Region II
290 Broadway, E38, Floor 19
New York, New York 10007-1866

Dear Mr. Caspe:

Re: Proposed RODs-NYSDEC's Fiscal Year 2000

The New York State Department of Environmental Conservation (NYSDEC) is focusing on a number of sites for which completions of the remedial investigations/feasibility studies (RI/FS) Records of Decisions (ROD) could be achieved by March 31, 2001. Both our staff have met and discussed the possibilities with personnel from the former Plattsburgh and Griffiss Air Force Bases (August 23 and 24, respectively) and the United States Air Force Base Conversion Agency (USAFBCA), Washington, DC and they have agreed that a number of RODs could be completed by the end of the NYSDEC's fiscal year.

Agreement was reached on the following sites:

Plattsburgh Air Force Base (PAFB)

1. Site FT-002 (Soil). AFBCA to submit the second revised draft final Proposed Remedial Action Plan on Sept. 1, 2000 and draft ROD the week of Sept. 11, 2000; proposed signing of the ROD should be by Dec. 29, 2000;

2. Site FT-002 (Groundwater). AFBCA to submit RI/FS revisions, response to comments and a draft Proposed Remedial Action Plan by Oct. 6, 2000; it is expected that the ROD will be signed by March 30, 2001;

3. Site SS-017. AFBCA to resolve issues/concerns as required by comments on the draft FS report; supplemental evaluation and ROD is expected to be signed by March 30, 2000; and

4. Site SS-033. NYSDEC and USEPA to submit comments on the draft final SI report by Sept. 15, 2000; ROD is expected to be signed by March 30, 2001.

Griffiss Air Force Base (GAFB)

1. There are six sites for which draft Proposed Remedial Action Plans will be submitted by GAFB in Sept. 2000. They are: i) Bldg. 12 - PCB Dump; ii) Bldg. 225 - Two Dry Wells; iii) Bldg. 222 - Battery Acid Disposal Pit; iv) Bldg. 20 - Locomotive Round House Soil; v) T-9 Storage Area and vi) Bldg. 117 - Former Steam Plant; and

2. There are four sites for which draft Proposed Remedial Action Plans will be submitted by GAFB in Nov. 2000. They are: i) Bldg. 786 - Nose Dock 5; ii) Small Arms Range; iii) Bldg. 3 - Dry Well, iv) Lot 69 - Former Hazardous Waste Storage Area.

Staff of the PAFB, GAFB, USAF-BCA and our agencies expect that their forward planning will enable the signing of RODs for all of the above by March 30, 2001. Their estimates have included the required steps for review of documents, public meetings, response to comments and executive approval by each organization. Commitments of sustained focus have been made for these sites, since all are conscious of the demands of the Superfund Program during the impending end of the federal fiscal year.

I am requesting that your assistance in ensuring that the RI/FS reports and proposed plans for the sites above should be given priority treatment. The estimates from the August 23 and 24 meetings will not be realized if there is any lag in the review and responses to documents by these bases.

If you have any questions, please have your staff contact Salvatore Ervolina at (518) 457-4349.

Sincerely,

Thomas E. Quinn, P.E.
Assistant Division Director
Division of Environmental Remediation

c: M. Sorel - PAFB-BCA
M. McDermott-GAFB-BCA
L. Hancsak-USAF-BCA
A. Carlson- NYSDOH
S. Ervolina

bcc: M. O'Toole
T. Quinn (2)
M. Chen
file

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518)
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

September 11, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Finding of Suitability to Transfer (FOST); Parcel F4A
Griffiss Air Force Base, Site ID No. 633006

I have reviewed the referenced document and have only two comments:

1. Volume 30 of the Remedial Investigation Report, "Glycol Storage and Use Area of Concern", depicts the transfer property as being at least partially within the AOC. Please explain how the property is to be transferred under a FOST, as opposed to a FOSET (e.g., are you proposing a redefinition of the AOC?).

2. A clearer statement regarding future groundwater restrictions is necessary (e.g., Section 5.2.1 states that restrictions will be placed in the "transaction documents", but does not specify what documents it is referring to). Please change the wording to state that such restrictions will be placed within the deed upon transfer of the property so we can be certain that subsequent land owners will be aware of the situation.

3. Section 5.3.1; last paragraph: Why is UST 745-2 excluded from the restrictive covenant prohibiting construction activities in the groundwater?

Please note that the NYSDEC's comments are limited to the information presented, since we do not have the capacity nor authority to conduct an independent FOSL survey. If you have any questions, please contact me at (518) 457-0549.

If you have any questions on this matter, please contact me at (518) 457-0549.

Sincerely,

Jonathan Greco

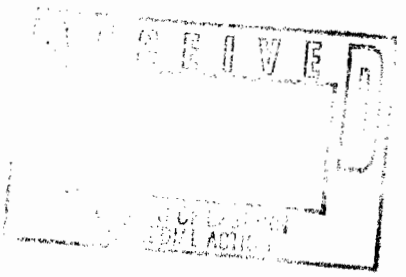
Jonathan Greco
Project Manager
Division of Environmental
Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swedowski, Reg. 6, Watertown
L. Hansak
S. Dimeo

bc: S. Ervolina
M. Chen

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

SEP 06 2000



Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Re: Technical Review of the Design Analysis Report, Project Specifications and Engineering Drawings for Landfill Cover Design: Landfill 2/3 and Landfill Cover Design: Landfill 7

Dear Mr. McDermott:

I have reviewed the **"Technical Review of the Design Analysis Report, Project Specifications and Engineering Drawings for Landfill Cover Design: Landfill 2/3 and Landfill Cover Design: Landfill 7"**, Former Griffiss Air Force Base, dated February 1999 (received June 14, 2000). Based upon this report, I have provided the attached comments which were also provided to you in draft form on August 17, 2000.

Should you have any questions, please me at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Remedial Project Manager

cc: J. Greco, NYSDEC

Technical Review of the Design Analysis Report, Project Specifications and Engineering Drawings for Landfill Cover Design: Landfill 2/3 and Landfill Cover Design: Landfill 7 Former Griffiss Air Force Base, Rome, New York

I. GENERAL COMMENTS

1. Both landfills, according to the draft Record of Decision (ROD) are to be closed in accordance with the New York State regulations, 6 NYCRR 360, effective April 1, 1987 (USAF, 2000). These regulations predate RCRA Subtitle D and the closure requirements generally consist of a two foot soil cover: an 18 inch thick lower permeability ($<1.0 \times 10^{-5}$ cm/sec) soil cover overlain by a six inch layer of topsoil. The design analysis report, specifications and drawings provide this type of cover system.

   The RODs for both sites (which are essentially identical in terms of alternatives selected) reference the containment presumptive remedy for military landfills. Guidance for the containment presumptive remedy for landfills (EPA, 1996) identifies five components:(1) landfill cap, (2) source area groundwater control to contain plume, (3) Leachate collection and treatment, (4) landfill gas collection and treatment, and (5) institutional controls to supplement engineering controls. The Designs Analysis Reports for landfills 2/3 and 7 address the landfill cap (albeit to the pre Subtitle D standards set forth in the RODs) and the institutional controls. Often, in the case of unlined landfills, the source area groundwater control to contain plume and leachate collection and treatment are replaced with a groundwater monitoring plan, with the understanding that elevated groundwater contamination would trigger implementation of groundwater/leachate control. The adequacy of the groundwater monitoring plans are not addressed in this review, but will be discussed in my review of the LTM Work Plan and Baseline Study Report.

2. Please note that the design analysis report, drawings and specifications are dated February 1999, one year before the date of the draft ROD. For clarification purposes the date should be revised.

A. LANDFILL 2/3 DESIGN ANALYSIS REPORT

1. The design is generally consistent with the selected remedy described in the Draft ROD. The cover is designed to the New York State Code of Regulations Part 360, April, 1, 1987. With the exceptions as follows:
   1. 6 NYCRR 360.8(b)(1)(vi) requires the control of decomposition gasses. The DAR does not address this issue. If decomposition gasses are presently released in an uncontrolled manner through the existing cover, the placement of a lower permeability soil cover may result in gas accumulation and lateral migration. An assessment of decomposition gases associated with the landfill and assessment of need for gas controls should be included in the DAR. Additionally, soil gas monitoring probes should be included in the design and the post closure monitoring plan should include soil gas monitoring.

2. 6 NYCRR 360.8(a)(20) restricts activities from floodplains. No floodplain information is provided. The potential for Encroachment onto floodplains should be addressed in the DAR. If applicable, the cap should minimize impacting the floodplain.

2. The stormwater controls discharge concentrated flows onto the surrounding area without use of stormwater detention structures. It is advisable to design and construct stormwater detention structures to minimize peak surface flows from lined channels onto unlined existing areas, or alternatively, create lined channels that discharge into the downgradient tributaries of Sixmile Creek.

   The specifications require that the contractor prepare a soil erosion and sedimentation control plan. Often, soil erosion and sedimentation controls include structures (sediment traps or sediment basins) that detain stormwater and dampen peak concentrated flows that could cause erosion. It would be prudent to include such structure in the design or require that the soil erosion and sedimentation control plan include structures downgradient of the channel outlets. All structures should be designed consistent with the design storm used for the cover system: 100 year return frequency, 24 hour duration.

3. The design calls for elimination of four ground water monitoring wells, MW3, MW10, MW5 and MW6. It is unclear in the DAR if there is sufficient justification for removing there wells from the system and whether the remaining wells will adequately address the presumptive remedy requirements for measuring potential groundwater plume and potential leachate release. This issue will be addressed as part of my review of the LF 2/3 LTM Work Plan.

4. The Project Schedule, submitted with the Specification appears reasonable. However, there should be a line item for installation of temporary erosion and sedimentation controls prior to the start of item 35, clearing gravel stripping and fence demolition.

B. LANDFILL 7 DESIGN ANALYSIS REPORT

1. The design is generally consistent with the selected remedy described in the Draft ROD. The cover is designed to the New York State Code of Regulations Part 360, April, 1, 1987. With the exceptions as follows:
   1. 6 NYCRR 360.8(b)(1)(vi) requires the control of decomposition gasses. The DAR does not address this issue. If decomposition gasses are presently released in an uncontrolled manner through the existing cover, the placement of a lower permeability soil cover may result in gas accumulation and lateral migration. An assessment of decomposition gases associated with the landfill and assessment of need for gas controls should be included in the DAR. Additionally, soil gas monitoring probes should be included in the design and the post closure monitoring plan should include soil gas monitoring.
   2. 6 NYCRR 360.8(a)(20) restricts activities from floodplains. No floodplain information is provided. The potential for encroachment onto floodplains should be addressed in the DAR. If applicable, the cap should minimize impacting the

floodplain.

2. The only stormwater control structures included in the design are rehabilitation of existing channels on both sides of the road that bisect the landfill and the existing channel that lies along the perimeter access road. Two of these channels feed into existing culverts. However, no design information is given as to the adequacy of the existing culverts. Calculations should be provided that the existing culverts are capable of handing peak flows associated with the design storm used for the cover system: 100 year return frequency, 24 hour duration.

3. The design calls for elimination of six ground water monitoring wells, HS7MW-1, MW16 MW17, LF7MW3R, LF7MW18R and LF7MW15. It is unclear in the DAR whether there is sufficient justification for removing these wells from the system and whether the remaining wells will adequately address the presumptive remedy requirements for measuring potential groundwater plume and potential leachate release. This issue will be addressed as part of my review of the LF 7 LTM Work Plan.

4. The Project Schedule, submitted with the Specification appears reasonable. However, there should be a line item for installation of temporary erosion and sedimentation controls prior to the start of item 35, clearing.

5. According to Page 2-3 of the DAR, leachate seepage has been observed on the southeastern portion of the landfill. I believe this statement is referring to an observation occurring many years ago which has not been verified since. However, the DAR should confirm that no leachate has been observed and what steps will be taken to determine if leachate exists in the future. If leachate is found then the DAR needs to address collection and treatment of leachate from seeps. Specifications and drawings should include a collection and storage system to collect leachate in the vicinity of observed leachate flows.

II SPECIFIC COMMENTS

A. Landfill 2/3

1. **Page 2-14, 4th Paragraph:** The text states the delineated wetland LF2/3-WL2 is "immediately adjacent to the landfill edge and could be affected by activity at that edge." Encroachment into the wetland is likely, but this issue does not appear to be addressed in the specifications or drawings. The specifications should include special requirements for wetland protection and restoration of disturbed wetlands, with applicable construction details.

2. **Page 3-2, 3rd Paragraph:** The maintenance frequence for mowing the vegetation of "at least every other year" will not likely be sufficient to ensure that deep rooting and woody vegetation do not penetrate the 24 inch cap. A frequency of two times per year would be more appropriate.

3. **Page 3-2:** The list of maintenance activities that should be performed at the landfill is incomplete. There should be a set criteria for successful vegetation coverage, with reseeding application rates. There should also be a provision for repairs of the cap due to erosion or damage from burrowing animals. Typically these areas are identified during periodic inspections. There should be provision for an inspection and with an established protocol in the maintenance plan.

4. **Appendix A :**The slope stability analysis performed is an infinite slope analysis of the cover, for "dry" conditions and 4 feet saturation at toe of the slope against the wetland. seepage forces. The assumed moisture component for the analysis appears to be based on the average moisture content. Considering the absence of a drainage layer in the soil cover design, the presence of excess moisture, the analysis of seepage forces should also include the case of the upper (topsoil) layer alone because there is no drainage layer, and the topsoil layer is 72 times more permeable than the barrier layer. The top soil medium may allow for hydraulic head build-up over the less permeable barrier layer.

5. **Appendix B:** The evaporative depth used in the pre and post development models is 36 inches. This appears excessive. Further, this implies that the depth of evapotranspiration will be greater than the proposed cover thickness. Either provide justification for this value or reduce the evaporative depth to be consistent with the recommendations provided in the HELP model Users guide (Shroeder et al, 1994).

6. **Appendix D, Page D-83.** The calculation conclusion states that vegetation alone will provide adequate erosion protection. However, on Page D-85, the calculated factor of safety for the stability of the slope against erosion is 1.1 for a 3 Horizontal: 1 Vertical slope of maximum slope length of 180 feet. This factor of safety can be considered too low. It is recommended that all steep slopes (3:1)be stabilized with a permanent erosion control mat, or other appropriate means. Alternatively, the 3:1 slopes could be flattened. However, this could cause additional encroachment onto wetland LF2/3-WL2. Therefore, any flattening of slopes should be addressed with applicable wetland mitigation.

7. **Drawing CO-1**. Note 5 states that a sign should be removed and reinstalled in exact location upon completion of seeding. It is not clear how this sign is to be anchored (e.g. embedded in concrete) and whether the foundation for the sign will penetrate the soil cap. Also a new sign with post closure use restrictions clearly visible would be more appropriate than the existing sign. A construction detail should be provided.

8. **Drawing C-05 Detail 1**: Typical Drainage Swale Detail. Interior slope and interior channel widths are not provided on the not to scale detail. Provide either slope or dimensions. The exterior slopes are dimensioned 2 Horizontal to 1 Vertical. The stability of these slopes should be addressed. The cap grading plan should include adjustment of final cover contour lines to accommodate drainage swales.

9. **Section 01060, Page 01060-2.** The text references 6 NYCRR 360 as the applicable regulations, but does not include an effective date of the regulations. There should be

some explanation that the cap is intended to apply with the April 1987 version of the code and not the current version of the code, most recently modified November 1998.

10. **Section 01170, Page 1170-2, Article 1.5:** Article 1.5 deals with on site utilities and interruption of utilities shown on the drawings. However, no utility information is shown on the drawings. A discussion of location, or absence of utilities within the project area should be included in the DAR and, if applicable, utility information should be shown on the drawings.

11. **Section 02670, Page 02670-1, Paragraph 1.2**: The portland cement to be used in the grout mix for well abandonment is specified to be Type II . Unless there is specific information about sulfate reactivity in the soil or groundwater, this requirement can be changed to be consistent with Section 2.2 of the NYDEC Groundwater Monitoring Well Decommissioning Procedures, which require Type I or Type III, depending on geologic conditions.

12. **Section 02670, Page 02670-2, Paragraph 2.2:** The specified cement grout mix is inconsistent with the two grout mixes recommended by NYDEC. The grout mix formula should be revised.

13. **Section 02670, Page 02670-2, Paragraph 3.1.e:** The specifications state avoid overboring bottom of hole. This requirement should be changed to be consistent with Section 2.2 of the NYDEC Groundwater Monitoring Well Decommissioning Procedures, which require 0.5 feet of overboring beyond the end of the existing hole.

B Landfill 7

1. **Page 2-14, 3rd Paragraph:** The text states the delineated wetland LF7-WL1 is "immediately adjacent to the landfill edge and could be affected by activity at that edge." Drawing C-03 shows that the cap encroaches onto the delineated wetland near coordinate N 1177790 E1137560. Mitigation of the wetland is not addressed. Further, the specifications should include special requirements for wetland protection and restoration of disturbed wetlands, with applicable construction details.

2. **Page 2-23, 2nd Paragraph:** The text states that the contractor will be instructed not to enter wetlands during construction. This is contrary to the Page 2-14 narrative and drawing C-03, which shows grading in delineated wetlands. This text should be revised.

3. **Page 3-2, 3rd Paragraph:** The maintenance frequence for mowing the vegetation of "at least every other year" will not likely be sufficient to ensure that deep rooting and woody vegetation do not penetrate the 24 inch cap. A frequency of two times per year would be more appropriate.

4. **Page 3-2:** The list of maintenance activities that should be performed at the landfill is incomplete. There should be a set criteria for successful vegetation coverage, with reseeding application rates. There should also be a provision for repairs of the cap due to

erosion or damage from burrowing animals. Typically these areas are identified during periodic inspections. There should be provision for an inspection and with an established protocol in the maintenance plan.

5. **Appendix B:** The evaporative depth used in the pre and post development models is 36 inches. This appears excessive. Further, this implies that the depth of evapotranspiration will be greater than the proposed cover thickness. Either provide justification for this value or reduce the evaporative depth to be consistent with the recommendations provided in the HELP model Users guide (Shroeder et al, 1994).

6. **Drawing C-03:** The eastern swale appears to terminate without an outlet apron approximately 50 feet from the plotted stream channel. In the absence of outlet protection, the channel should be extended to the banks of the stream with a designed outlet protection.

7. **Section 01060, Page 01060-2.** The text references 6 NYCRR 360 as the applicable regulations, but does not include an effective date of the regulations. There should be some explanation that the cap is intended to apply with the April 1987 version of the code and not the current version of the code, most recently modified November 1998.

8. **Section 02670, Page 02670-1, Paragraph 1.2**: The portland cement to be used in the grout mix for well abandonment is specified to be Type II . Unless there is specific information about sulfate reactivity in the soil or groundwater, this requirement can be changed to be consistent with Section 2.2 of the NYDEC Groundwater Monitoring Well Decommissioning Procedures, which require Type I or Type III, depending on geologic conditions.

9. **Section 02670, Page 02670-2, Paragraph 2.2:** The specified cement grout mix is inconsistent with the two grout mixes recommended by NYDEC. The grout mix formula should be revised.

10. **Section 02670, Page 02670-2, Paragraph 3.1.d:** The specifications state avoid overboring bottom of hole. This requirement should be changed to be consistent with Section 2.2 of the NYDEC Groundwater Monitoring Well Decommissioning Procedures, which require 0.5 feet of overboring beyond the end of the existing hole.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

SEP 06 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Re: ***Areas of Concern, Long-Term Monitoring Baseline Study Baseline Study Report and Areas of Concern, Long-Term Monitoring Draft Work Plan,***

Dear Mr. McDermott:

I have reviewed the "***Areas of Concern, Long-Term Monitoring Baseline Study Baseline Study Report*** **and** ***Areas of Concern, Long-Term Monitoring Draft Work Plan,***", Former Griffiss Air Force Base, dated July 2000 (received August 1, 2000). As you will see in the attachment, my comments have been divided into general and specific issues, pertaining to each of these documents. Please note, these comments should be reviewed in conjunction with my comments regarding the Design Analysis Report and Project Specifications for Landfills 2/3 & 7.

Should you have any questions, please me at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Remedial Project Manager

cc: J. Greco, NYSDEC

Technical Review
Areas of Concern, Long-Term Monitoring Baseline Study, Baseline Study Report and Areas of Concern, Long-Term Monitoring, Draft Work Plan
Former Griffiss Air Force Base, Rome, New York

I. GENERAL COMMENTS

DRAFT WORK PLAN

1. The decision rule for discontinuing monitoring of wells is unacceptable. Although not completely described in the text, it appears that a regression analysis will be performed to estimate the next value in the "series" of sample values and if the "90% confidence level" (presumably, a one-sided UCL) is below the NYS Groundwater Standard or the estimated value is less than 10% below the NYS Groundwater Standard, the monitoring will be discontinued. However, the proposed regression analysis presupposes that the data is normally distributed which has not been shown. A non-parametric test, such as the Mann-Kendall test (Gilbert, 1987), is more appropriate for trend data analysis. The Mann-Kendall test does not require that the data conform to any particular distribution, and because it uses only the relative magnitude of the data rather than the measured values, it can handle non-detected values. A different decision rule should be proposed–but also, it must be borne in mind that no statistical procedure will have sufficient power to detect trends if only a few data points are available.

2. The work plan suggests that if COC concentrations remain within an order of magnitude for two consecutive sampling rounds, the sampling frequency should be evaluated. However, no procedure is described for the way the sampling frequency will be modified. Provide a description of the procedure to evaluate a modification to the sampling frequency.

3. In a number of instances, the report refers to LTM optimization as serving to "minimize the number of wells, sampling frequency, and data analysis and reporting." The text should be revised to indicate that the optimal (most efficient) well network design is one that *accurately* monitors plume behavior with the fewest number of wells.

BASELINE STUDY REPORT

1. The baseline study should include quarterly groundwater contour maps to assess the seasonal variability of groundwater.

2. The quarterly sample analysis summary does not contain VOCs as an analysis parameter for Landfill 2/3. While it is noted that only low levels of VOCs have been detected historically at Landfill 2/3 AOC, sanitary waste was disposed in this AOC. This type of waste can result in discharge of VOCs.

3. The Draft Feasibility Study, prepared by Ecology and Environment, Inc., in 1997, has been neither accepted nor reviewed by the United States Environmental Protection

Agency.

4. It is unclear from this study whether vertical migration of groundwater contaminants is occurring. Provide elevations for land surface contours on the site drawings and display contaminant plumes on site cross-sections to graphically portray the possible vertical migration of groundwater contaminant plumes.

5. The baseline study does not provide sufficient justification that the bedrock aquifer is uncontaminated. Only two bedrock monitoring wells were installed for the baseline study, LF7MW-100 and LF1MW-102R. Both bedrock wells, however, are low-producing, and as such, may not have accurately measured groundwater contamination. Additional bedrock monitoring wells should be proposed.

6. Metals, glycol, SVOCs, total petroleum hydrocarbons, and pesticides have been detected in soils, and in some cases, groundwater. The baseline study should have included analysis of these parameters at most or all of the subject Areas of Concern (AOCs) before elimination from the LTM program. Consideration should be given to including analysis of these contaminants in the LTM program.

7. The Conceptual Site Models should address ecological risk estimates as well as human health risk.

8. The landfill cross-section drawings should be revised to show the depth of landfilled waste.

II. SPECIFIC COMMENTS

DRAFT WORK PLAN

1. **Section 3.2.2, page 3-13:** It is asserted that the bedrock surface has low permeability. No evidence for this assertion is provided. The text should be revised to substantiate this assertion or it should be deleted.

2. **Figure 3-5, page 3-17:** Regarding the construction of the cross-section for Landfill 1, although well LF1MW-6 is only 30 feet from the cross-section, it is not shown, while well LF1MW-9, which is approximately 450 feet from the cross-section, is shown. Figure 3-5 should be revised accordingly.

3. **Table 3-3, page 3-23:** Owing to the future land use for this AOC and the flora and fauna present, ecological risks should be determined and presented in the Risk Estimate column of this table. In many cases, these values are much lower than human health values or MDLs.

4. **Page 3-36, 5th Paragraph:** The text references a leachate plume from Landfill 2/3, which is delineated by leachate indicators. A drawing showing the extent of the leachate plume

from Landfill 2/3 should be included in the work plan.

5. **Table 3-8, page 3-42:** The quarterly sample analysis summary does not contain VOCs as an analysis parameter. While it is noted that only low levels of VOCs have been detected historically at Landfill 2/3 AOC, sanitary waste was disposed at Landfill 2/3. This type of waste can result in discharge of VOCs. VOCs should be retained for the quarterly sample analysis summary.

6. **Page 3-78, 4th Paragraph:** The first sentence states that no significant ecological risks were identified in the RI. This sentence should be amended to state that the EPA does not agree with this statement. The RI did not consider any threatened or endangered species to be of concern at Landfill 7. However Section 2.1.5 of the Work Plan identifies one New York State threatened bird species, the upland sand piper, and one bird species of special concern, the grasshopper sparrow, both of which have bred in the vicinity of Landfill 7. These species should be addressed in the ecological risk assessment.

7. **Section 3.7.5, page 3-97:** The text suggests that existing monitoring wells can be used to determine the effectiveness of the Building 255 (Tin City) drywell removal. Based on Figure 3-10 (page 3-52), existing well 255VMW-1 is not downgradient from the drywell, and while 255VMW-2 is downgradient, it is in a location that collects groundwater from many areas that may not adequately monitor a single source removal action. Additional monitoring points should be considered.

BASELINE STUDY REPORT

1. **Page 5-7, 5th Paragraph:** Upgradient well 101MW-4 was not sampled during the January sampling event even though it was scheduled to be sampled in the draft-final field sampling plan (FPM, 1998). Provide a justification for not including this sampling.

2. **Page 5-55, 3rd Paragraph:** Upgradient well HS4MW-1 was not sampled during the January sampling event even though it was scheduled to be sampled in the draft-final field sampling plan (FPM, 1998). Provide a justification for why it was not sampled during the January event.

3. **Page 5-78, Table 5-12:** The text states that there is minimal hydraulic connectivity between the surficial unconsolidated sediments and the bedrock shale. Supporting evidence should be supplied for this statement.

   Owing to the future land use for Landfill 1, the flora and fauna present, and the discharge of leachate and/or groundwater to surface water bodies, ecological risks should be determined and presented in the Risk Estimate column of this table. In addition, any sample analysis performed for this AOC should take into account the ecological screening criteria values. In many cases, these values can be much lower than human health values or MDLs.

4. **Section 5.3.4.1, Page 5-89:** The work plan for the AOC Long Term Monitoring Baseline Study included LF2MW-11 in the draft final field sampling plan for Landfill 2/3 (FPM,

1998). Discuss why this monitoring well was not sampled.

5. **Page 5-96, 4th Paragraph:** The text states that sampling results for LF2/3TW-2 strongly indicate that antimony, arsenic, cobalt, copper, lead, nickel, selenium, thallium and vanadium are released from a broad area of Landfill 2/3 and that temporary monitoring well, LF2/3TW-2 is situated within the downgradient area of the landfill leachate plume. However the second paragraph states that the presence of elevated levels of heavy metals and trace metals in the upgradient wells suggests that these can be attributed to background conditions for the landfill. These two statements appear to be contradictory and should be revised.

6. **Section 5.3.1.6, Page 114:** The baseline study report recommends that new long-term monitoring wells be installed downgradient of Landfill 2/3 for compliance with state regulations regarding monitoring well spacing because several existing wells will be decommissioned. This report also states that the proposed wells will increase the distribution of monitoring well locations. However, because several wells are also being decommissioned, the overall spacing or distribution of the monitoring wells will remain essentially unchanged. The text should be revised accordingly.

7. **Page 5-133, 1st Paragraph:** The text states that during the January sampling event LF5MW-1 was not sampled and LF5MW-1A was sampled. However, Table 5-19 contains sampling results for LF5MW-1, but no results for LF5MW-1A. Address this inconsistency.

   Upgradient well LF5MW-1A was not sampled during the January sampling event even though it was scheduled to be sampled in the draft final field sampling plan (FPM, 1998). Provide a justification for not sampling this well during the January event.

8. **Section 5.5.4.1, Page 5-156:** Monitoring well LF7MW-3R was not sampled during the January sampling event even though it was scheduled to be sampled in the draft-final field sampling plan (FPM, 1998). Provide a justification for not sampling this well during the January event.

9. **Section 5.6.3, Page 5-196:** Monitoring well LAWMW-13 was not sampled during the January sampling event and the three temporary well piezometers were not sampled in the August sampling event even though they were scheduled to be sampled in the draft final field sampling plan (FPM, 1998). Discuss the reasons these monitoring wells were not sampled.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Rome, NY 13441-4105

Re: Revised Finding of Suitability to Lease (FOSL) for Bldg. 131

Dear Mr. McDermott:

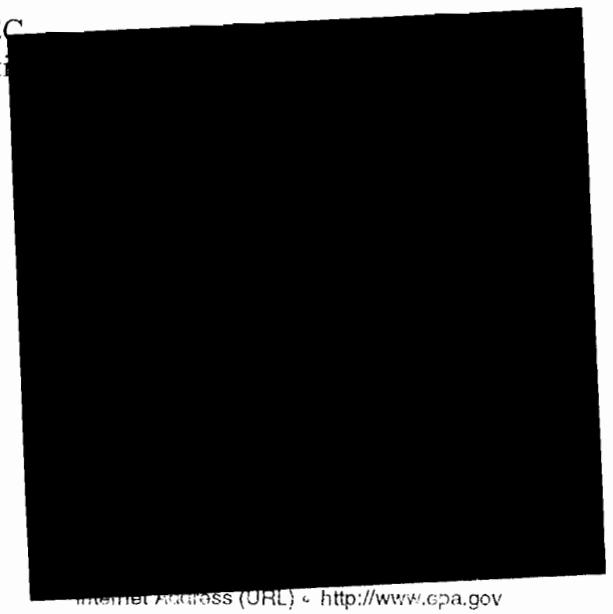
EPA has reviewed the Revised Finding of Suitability to Lease ("FOSL") and Supplemental Environmental Baseline Survey ("SEBS") for Building 131, dated August 24, 2000, as well as the Air Force's Response to Comments on the forementioned documents. Upon review of these documents and supporting data, the EPA has found that the documents are acceptable and the property is suitable for the intended purpose stated in the FOSL.

The FOSL indicates the future use of this property to be industrial. Our review of the environmental condition of the property indicates that the environmental factors pose no concern with this intended future use. However, should the use change from that outlined in your FOSL, please note additional review may be necessary.

Sincerely,

Robert Wing, Chief
Federal Facilities Section

cc: J. Greco, NYSDEC
S. DiMeo, Executi



DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

29 AUG 2000

MEMORANDUM FOR SEE DISTRIBUTION LIST

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Final Technical Memorandum #1 for Landfill 6 and Building 775 Groundwater Study

1. Enclosed please find *Final Technical Memorandum #1 for Landfill 6 and Building 775 Groundwater Study* dated August 2000 which presents the results of the field investigations that were performed this spring at Griffiss AFB.

2. If you have any questions, please contact Mike Wojnas, 315-330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment:
Final TM #1 for Landfill 6 and Building 775 Groundwater Study

DISTRIBUTION:

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DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

AUG 24 2000

MEMORANDUM FOR Mr. Douglas Pocze
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New York NY 10007-1866

Mr. Sal Ervolina, Director/
Mr. Jonathan Greco, Project Manager
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010

FROM: AFBCA/DA - Griffiss
Environmental Section
153 Brooks Road
Rome NY 13441-4105

SUBJECT: Lease Application - Building 131

1. Reference our July 27, 2000 memorandum concerning review of the draft Finding of Suitability to Lease (FOSL) document for subject lease application. Review comments from the United States Environmental Protection Agency (USEPA) and the New York State Department of Environmental Conservation (NYSDEC) were received by this office and have been incorporated into the FOSL.

2. We are providing the attached revised final draft FOSL document for your final review. Please provide your concurrence within three working days so that we may expedite the processing of this lease.

4. If you have any questions on the revised draft final FOSL, please contact Michael Wojnas at (315) 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment:
Revised Draft Final FOSL - Bldg 131

cc: Ms. Lynn Hancsak, AFBCA/DA - EV

AFBCA/DA - GRIFFISS

FINDING OF SUITABILITY TO LEASE

BUILDING 131

DRAFT FINAL

August 2000

FINDING OF SUITABILITY TO LEASE (FOSL)
BUILDING 131
GRIFFISS AIR FORCE BASE (AFB), NEW YORK

1. PURPOSE

1.1 The purpose of this FOSL is to document environmentally-related findings and the suitability to lease property at Griffiss AFB, New York, to the Griffiss Local Development Corporation (GLDC). The property is described in Section 2 below. The property will be leased to the GLDC on an interim basis for a term of one year, with four additional options to renew with a term of one year each. The GLDC will sublease the property to a private business for use as an office building for development of software and software support activities for the Air Force.

1.2 This FOSL is a result of an analysis of information contained in the following documents: (1) Final Environmental Impact Statement (FEIS) for the Disposal and Reuse of Griffiss Air Force Base, New York, November 1995; (2) Final Supplemental Environmental Impact Statement (FSEIS) for the Disposal and Reuse of Airfield at Griffiss Air Force Base, New York, September 1999; (3) Basewide Environmental Baseline Survey (EBS) for Griffiss Air Force Base, New York, September 1994; (4) Basewide Environmental Baseline Survey Update, March 1997; (5) Draft Final Remedial Investigations (RI) Report dated December 1996; (6) Griffiss Area of Interest (AOI) Reports dated November 1996 (Group I), May 1997 (Group II and III) and July 1998 (Expanded Site Investigation); (7) Unexploded Ordnance (UXO) Archives Search Report - Recommendations and Findings, dated November 1997; (8) Final BRAC Removal Actions (UXO) Report, dated 30 October 1998; (9) 1993 Inventory of Rare Plant Species and Significant Natural Communities at Griffiss AFB, dated 25 January 1994; (10) Phase II Archaeological Investigations of 20 Sites at Griffiss AFB, dated April 1997; and (11) a Visual Site Inspection (VSI) conducted in July 2000. A VSI form describing information gathered during the VSI is included as Attachment 1 to this document.

2. PROPERTY DESCRIPTION

The property to be leased is shown on the map (Attachment 2) and consists of a total of approximately 3.29 acres. The property includes Building 131 (12,027 sf), the grass area north of the building (includes B/5893 - Outdoor Recreation Pavilion – 476 sf) and the paved parking areas to the south.

3. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE

The environmental impacts of this proposal have been adequately analyzed and disclosed in compliance with NEPA. These impacts are analyzed in the FEIS for the Disposal and Reuse of Griffiss Air Force Base, New York, November 1995 and are Categorically Excluded from further analysis as described in CATEX #A2.3.11 and documented on the attached USAF Form 813 (Attachment 3). Building 131 was previously used as office space for the headquarters of the NorthEast Air Defense Sector (NEADS) command stationed at Griffiss AFB. Based on this

analysis, the environmental impacts of proceeding with the Lease are not sufficiently adverse to human health and the environment to out-weigh the other advantages to the community and the public interest of this Lease or to prevent the Leasing of the property.

4. ENVIRONMENTAL CONDITION OF THE PROPERTY

Based on a review of the Basewide EBS and the VSI of the property; the building and surrounding grass area and pavements are considered Department of Defense Environmental Condition Category 2. Category 2 areas are those areas where only release or disposal of petroleum products has occurred.

The United States Environmental Protection Agency (USEPA) has concurred that only the release or disposal of petroleum products has occurred on the property.

5. DEED RESTRICTIONS AND NOTIFICATIONS

The environmental documents listed in Section 1.2 were evaluated to identify environmental factors which require specific restrictions under the Lease, to preclude threat to human health or the environment, or require notifications to the Lessee. The factors that require either Lease restrictions or notifications are identified in Attachment 4 and are discussed below. The remaining factors listed in Attachment 4 pose no threat to human health or the environment and, therefore, require neither lease restrictions nor notifications to the lessee.

5.1 Installation Restoration Program (IRP) Sites, Areas of Concern (AOCs), and Areas of Interest (AOIs)

The United States Air Force (USAF), USEPA, and New York State Department of Environmental Conservation (NYSDEC) entered into a Federal Facility Agreement (FFA) effective August 21, 1990, under Section 120 of CERCLA.

5.1.1 Subject Property

There are two (2) AOC sites located within the subject property.

AOC/IRP Site ID	Site Name
ST-51	Building 100 - Hydrant Fuel System
SD-52	On Base Groundwater Contamination

ST-51, Building 100 - Hydrant Fuel System, is a Source Removal AOC Site and an interim remedial action was performed during the summer of 1997 under project JREZ95-7050, FFA Source Removals. During the interim remedial action, the underground storage tank (UST-0131-02) was removed. Residual petroleum contamination will be addressed under project JREZ97-6042B, Close Spill Sites. The spill number associated with this site is 9704490 (UST-0131-02). See Section 5.2.2 for further information.

SD-52, On Base Groundwater Contamination, is an AOC and the groundwater on the property was investigated and analytical results are presented in the Draft Final RI report dated December 1996. The Draft Final RI report indicated that no release, disposal, or migration of hazardous substances has occurred into the groundwater at the property.

All AOIs on the subject property have been classified as Covered Under Other Programs or No Further Study.

The USAF has evaluated the risks associated with this site and has determined that this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

The Lessee will be advised through the Lease documents of the locations of past, possible, and future remedial actions/investigations. The Lessee will be required under the Lease to comply with the provisions of any health and safety plans in effect under the IRP. The health and safety plans will incorporate Occupational Safety and Health Administration (OSHA) requirements. The Lessee will be restricted from conducting any type of excavation, digging, drilling, or other ground disturbing activity on the subject property without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF and regulatory agencies unrestricted access to the property to conduct necessary investigation and/or cleanup activities.

5.1.2 Adjacent IRP Sites and AOCs

There are five (5) IRP/AOC sites located on adjacent property that may impact the subject property.

AOC/IRP Site ID	Site Name
SS-08	Building 112-PCB Spill and Lab Drywell
SS-20	Tank Farms 1 and 3
ST-36	Building 110 Aqua System
ST-53	Building 133 Storage Vault
SS-58	Aqua Refueling System

SS-08, Building 112-PCB Spill and Lab Drywell, is an AOC site located to the west of the leased property that has been identified as having soil contaminated with PCBs caused by the leaking of PCB-containing transformers formerly located in the southern section of the building. The site was recommended for a removal action by the USAF in its Draft Final RI report dated December 1996. The interim remedial action fieldwork has been completed under project JREZ97-7006, AOC Removals, and the closure report was forwarded to the regulators. Comments have been received from the USEPA. Closure of this site is pending final regulator approval of the closure report and the issuance of a Proposed Plan and Record of Decision. The remedial action consisted of surface and subsurface soil removal on the exterior south and west sides of the building with disposal of the PCB-contaminated soil off site. Groundwater at this

site has not been impacted. Three USTs were also associated with this site. The tanks were removed and closed in 1993.

SS-20, Tank Farms 1 and 3, is a Source Removal AOC site (NYSDEC Spill Number 9111733) located to the west of the leased property. Further investigation will occur to address residual petroleum contamination under project JREZ97-6042, Close Spill Sites.

ST-36, Building 110 Aqua Refueling System, is a Source Removal AOC Site located at the Building 110 property to the west of the leased property. B/110 served as a pumphouse and fuel storage station to a fuel distribution system. The Aqua System consisting of an 8-inch pipe network that provided AVGAS and JP-4 fuel to various portions of the flight line and aprons. A portion of the 8-inch pipe network is located on the property. An interim removal action (Project JREZ89-0062) was completed in 1993. The removal action consisted of the cleaning, sampling and closure of the Aqua System fuel lines, removal of four (4) 25,000-gallon fuel storage tanks, and the removal of associated fuel-contaminated soils. NYSDEC Spill Number 8603763 is associated with the four (4) storage tanks which were located west of the property. Further investigation at this site is scheduled for 2000 under project JREZ97-6042, Close Spill Sites.

SS-53, Building 133 Storage Vault, is an AOC site located east of the leased property that was recommended for a removal action for an oil/water separator (OWS-133) and associated UST-0133-01 and contaminated soils by the Air Force in its Draft Final RI report dated December 1996. The OWS (NYSDEC Spill Number 9201395) and the UST (NYSDEC Spill Number 9702171) were removed in 1997 under project JREZ96-0020, Close Oil Water Separators. Additional soil investigation for the open spill numbers is being conducted under project JREZ96-0020. Additional groundwater investigations were performed under the Supplemental Investigations program. The analytical results from these samples were made available to the regulators in November 1997. Groundwater monitoring is currently being performed in an effort to close the spill numbers.

SS-58, Aqua Refueling System, is an IRP site located near Building 101 property to the west of the leased property. SS-58 served as an Aqua Refueling System Pipeline consisting of 8,480 linear feet of steel pipe network that provided AVGAS and JP-4 fuel to various portions of the apron surrounding Building 101 and to Building 112. A closure action (project JREZ96-7005, Close Aqua System) has been completed. The closure action consisted of the cleaning, sampling and closure of the Aqua System fuel lines and the removal of a 12,000-gallon fuel salvage tank. There are no spill numbers associated with this site.

The USAF has evaluated the risks associated with these sites and has determined that the subject property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

The Lessee will be advised through the Lease documents of the locations of past, possible, and future remedial actions/investigations. The Lessee will be required under the Lease to comply with the provisions of any health and safety plans in effect under the IRP. The health and safety

plans will incorporate Occupational Safety and Health Administration (OSHA) requirements. The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity on the property without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF and regulatory agencies unrestricted access to the adjacent property to conduct necessary investigation and/or cleanup activities.

5.2 Petroleum Storage and Distribution Facilities

5.2.1 Underground and Aboveground Storage Tanks (USTs and ASTs)

There is one (1) former UST site located on the property and one (1) former UST site located on adjacent property that may be impacting the property. There are/were no ASTs on the subject property.

Table 5.2.1
Storage Tanks

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-0131-01 Diesel	275	North of B/131	None	Removed 1989	1989
UST-0131-02 Isopropyl Alcohol (JP-4 prior to)	25,000	Northeast of B/131 property **	9704490 Open Being Investigated under project 97-6042	Removed 1997 Project 97-7050	1997

* All tanks listed as closed on the above table have been removed from the Griffiss AFB Major Oil Storage Facility lease.

** The tank was located northeast of the property, however, the contamination associated with the open spill may have migrated onto the property.

5.2.2 Petroleum, Oil and Lubricant Systems (POL)

There was one (1) former POL system that was located on the property. A portion of POL-5685-02 ran north along the east side of Otis Street and south and east of Building 131 (see IRP site ST-51). POL-5685-02 was deactivated in the 1980s, and sampled and closed in place under project JREZ89-0062 in 1993. There is one (1) open spill number 9704490 along the pipeline that is being investigated under project JREZ97-6042B, Close Petroleum Spill Sites. The area of the spill is located within the boundaries of the property (westside).

The USAF has evaluated the risks associated with these sites and has determined that this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

The Lessee will be restricted from conducting any subsurface excavation, digging, drilling, or other ground disturbing activities at the UST or POL sites without prior written approval from the USAF. Provisions will be placed in the Lease to allow the USAF unrestricted access to the site to conduct investigations, cleanup or removal activities.

5.3 Asbestos Containing Material (ACM)

ACM was identified in Building 131. The asbestos observed during the VSI (Attachment 1) generally appeared to be in good condition. The Lease will require the Lessee to remove or remediate any ACM that during the period of the lease becomes damaged or deteriorated. The Lease will also require the Lessee to submit an appropriate asbestos disposal plan to the Air Force for approval prior to conducting any remediation activities. The Lessee will be responsible for complying with all applicable Federal, State and local laws relating to asbestos.

5.4 Lead-Based Paint (LBP)

LBP may be present in Building 131. The condition of possible LBP is noted in the VSI for the building (Attachment 1). The Air Force has classified this facility as a facility with a probability of having a LBP hazard because it was constructed prior to 1978 when the maximum allowable content of lead in paint was reduced. The Lessee will restrict construction, alteration, or modification (to include paint stripping or sanding) without prior testing of the paint and notification of and approval by the USAF prior to the initiation of the activity. The Lessee will be responsible through the Lease for ensuring that any LBP is maintained in good condition and for managing all LBP and potential LBP in compliance with all applicable laws and regulations. It is unlikely that LBP is present in Building 5893 as the Department of Defense banned the use of LBP products in 1978, prior to the construction of Building 5893 in 1984.

5.5 Sanitary Sewer Systems (Wastewater)

Building 131 is connected to a sanitary sewer. The Lease will require the Lessee to submit appropriate applications for discharging any sanitary waste to the sanitary sewer system prior to the beginning of the Lease and to meet all applicable wastewater discharge permit standards.

5.6 Drywells (Wastewater)

There are two (2) drywells located on the property. DRY-0131-01 is located north of Building 131 and was associated with steam condensate drain collection. This drywell was classified as no further study as AOI 42. DRY-0131-02 is located within Building 131 and is associated with a floor drain located in the mechanical room. This drywell was also classified as no further study under AOI 42.

5.7 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property to be leased has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven munitions related sites are identified to be present within the property to be leased. Clearing operations were performed in the summer of 1998 and documented in a final report dated 30 October 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property to be leased.

As stated in earlier sections, all ground disturbing activities performed by the lessee shall be first approved by the Air Force and subsequently performed in a manner such that the identification of ordnance related material might occur. Upon discovery of any suspected ordnance-related material the appropriate authorities shall be notified.

5.8 Historic Property

The draft Historic Structures Survey dated October 1995 was issued for review and revised on 14 July 1998. Comments on the revised draft were received from the NY State Office of Parks, Recreation and Historic Preservation on 9 September 1998. Based on the comments received, all buildings located within the property have been released from consideration.

5.9 Regulatory Compliance/Permits/Reports (by Lessee)

In addition to the environmental requirements stated above, the Lessee will be required through the Lease to comply with all other applicable laws and regulations and to obtain all environmental permits and approvals that are applicable to the operations conducted at the property. The Lessee will also be required through the Lease to provide the following documentation to the Air Force:

a. Copy of the Notification Letter to the NYSDEC Regulatory Affairs, Region 6 Office advising of operation start-up.
b. Copy of the NYSDEC Regulatory Affairs response.
c. Copy of all permit applications followed by the final permits.

6. REGULATOR COORDINATION

Consolidated draft documents were provided on 27 July 2000 for formal review and comment. Regulator comments (Attachment 5) were received on 8 August 2000 and 9 August 2000 from

the NYSDEC and USEPA respectively and were incorporated or addressed in the document. A draft final FOSL was provided for final coordination on 24 August 2000. The regulators concurred that their comments have been accurately addressed

7. FINDING OF SUITABILITY TO LEASE

Based on the foregoing information and analysis, I find that this property is suitable to Lease and that environmental conditions do not present an unacceptable risk to human health or the environment, subject to the lease containing appropriate restrictions on the activities of future recipients as addressed above.

Date

ALBERT F. LOWAS, JR.
Director
Air Force Base Conversion Agency

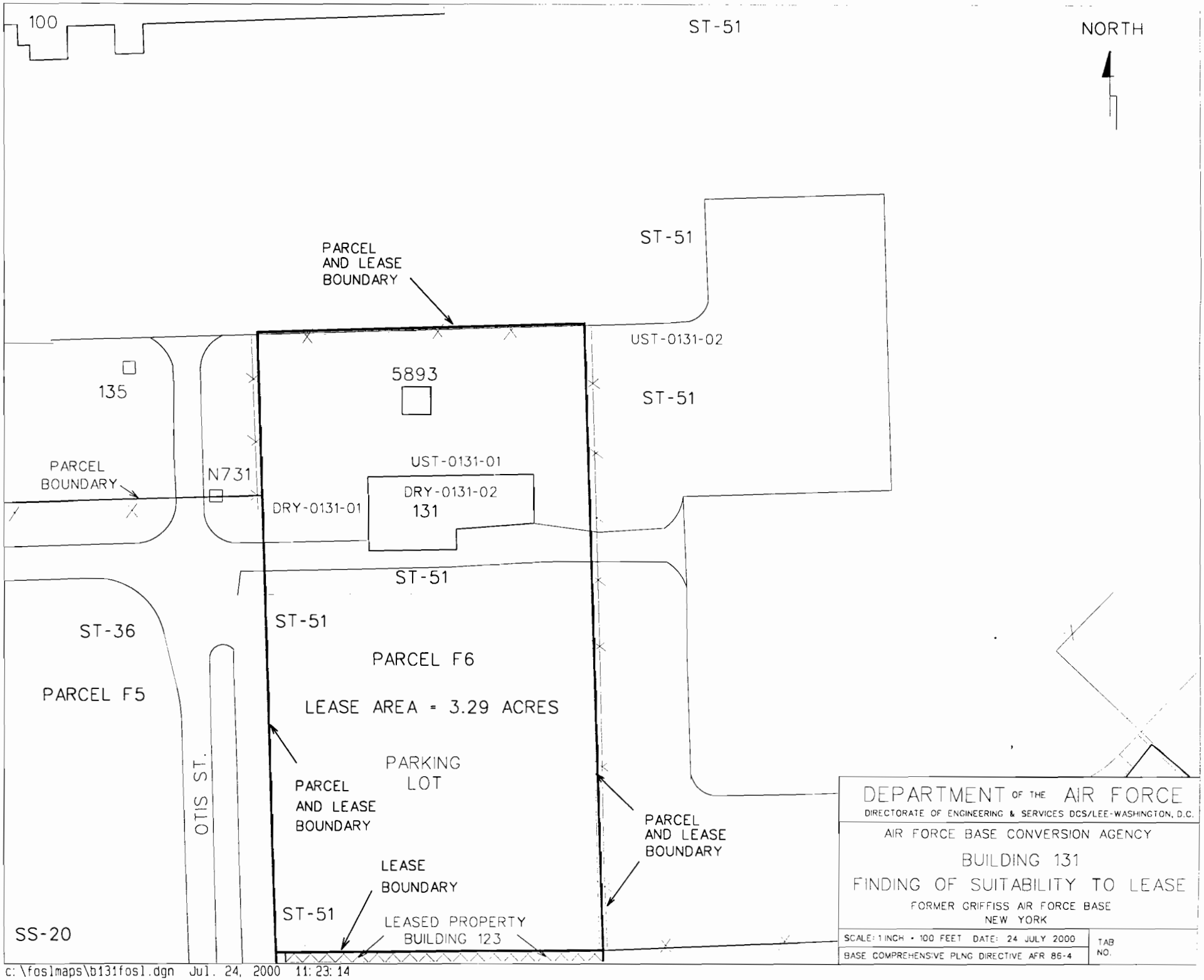
Attachments:
1. Visual Site Inspection Form
2. Property Map
3. Air Force Standard Form 813
4. Environmental Factors Considered
5. Regulator Comments
6. Air Force Response to Regulator Comments

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 131
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** July 2000
Facility #: Building 131	**Construction Year:** 1956	**Sq. Ft.:** 12,027
Inspected By: John Decharo/Michael Wojnas, AFBCA/DA - GRIFFISS		
Facilities Current Function: Vacant		
Prior Facility Use: Headquarters, NEADS		
Point of Contact: AFBCA/DA - GRIFFISS		
Known Features: Underground Storage Tanks: UST-131-01 (Removed 1989) Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: DRY-0131-01,02 Other Features: POL-5685-02		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: No SAP: No WPP: No Other: None		
Exterior Inspection: B/5893, Outdoor Recreational Pavilion located north of B/131 is in good condition. Exterior in good condition.		
Interior Inspection: Asbestos floor tile in interior mech room is in good condition. Fiberglass pipe insulation in good condition. Some damaged fiberglass pipe insulation in basement mech room. Interior of building in very good condition.		
Comments: Paint appears to be in good condition.		

Attachment 2

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 131
PROPERTY MAP



DEPARTMENT OF THE AIR FORCE
DIRECTORATE OF ENGINEERING & SERVICES DCS/LEE-WASHINGTON, D.C.

AIR FORCE BASE CONVERSION AGENCY

BUILDING 131

FINDING OF SUITABILITY TO LEASE

FORMER GRIFFISS AIR FORCE BASE
NEW YORK

SCALE: 1 INCH = 100 FEET DATE: 24 JULY 2000

BASE COMPREHENSIVE PLNG DIRECTIVE AFR 86-4

TAB NO.

c:\foslmaps\b131fosl.dgn Jul. 24, 2000 11:23:14

Attachment 3

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 131
AF FORM 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol
RCS:

INSTRUCTIONS: *Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I - PROPONENT INFORMATION

1. TO *(Environmental Planning Function)*	2. FROM *(Proponent organization and functional address symbol)*	2a. TELEPHONE NO.
AFBCA/DA-Griffiss	AFBCA/DA-Griffiss	315-330-2275

3. TITLE OF PROPOSED ACTION
Lease Building 131, NEADS Headquarters Building, to the Griffiss Local Development Corporation (GLDC).

4. PURPOSE AND NEED FOR ACTION *(Identify decision to be made and need date)*
The GLDC requests a lease for Building 131 for sublease to a private contractor. See the attached drawing.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES *(DOPAA) (Provide sufficient details for evaluation of the total action.)*
To be used as an office building for development of software and software support activities for the Air Force.

6. PROPONENT APPROVAL *(Name and Grade)*	6a. SIGNATURE	6b. DATE
Anna L. Lemaire, GM - 13	Richard J. Pekarek for	27 July 00

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. *(Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)*	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*		X		
9. WATER RESOURCES *(Quality, quantity, source, etc.)*		X		
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity-distance, etc.)*		X		
11. HAZARDOUS MATERIALS/WASTE *(Use/storage/generation, solid waste, etc.)*		X		
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, flora, fauna, etc.)*		X		
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)*		X		
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*	X			
16. OTHER *(Potential impacts not addressed above.)*		X		

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17. [X] PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # A2.3.11 ; OR
[ ] PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS
These impacts are categorically excluded from further analysis based on CATEX #A2.3.11 which encompasses the granting of leases to use USAF-controlled property for actions similar to other actions which have been determined to have an insignificant impact in a similar setting as established in the Final Environmental Impact Statement (FEIS) for Griffiss AFB, dated Nov 95. Based on this analysis, the environmental impacts of the lease proceedings are not sufficiently adverse to human health and the environment to outweigh the other advantages to the community and the public interest of this lease, or to prevent the leasing of the property.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION *(Name and Grade)*	19a. SIGNATURE	19b. DATE
Michael F. McDermott, GS - 13	Michael F. McDermott	7/27/00

Lease Restriction/ Disclosure or Notification Required?		***Environmental Factors Considered***
No	**Yes**	
		Environmental Restoration, Hazardous Substances, Petroleum
X		Hazardous Substances (Notification)
	X	Installation Restoration Program (IRP) and Areas of Concern
X		Medical/Biohazardous Wastes
X		Oil/Water Separators (OWSs)
	X	Unexploded Ordnance
X		Radioactive & Mixed Wastes
	X	Storage Tanks (UST/AST)
		Disclosure Factors/Resources:
	X	Asbestos
	X	Groundwater Quality
X		Drinking Water Quality
X		Indoor Air Quality
X		Lead-Based Paint (High-Priority Facilities)
	X	Lead-Based Paint (Other Facilities)
X		PCBs
X		Radon
		Other Factors:
X		Air Conformity/Air Permits
X		Energy (Utilities)
X		Flood plains
X		Hazardous Waste Management (By Lessee)
X		Historic Property (Archeological/Native American, Palentological)
X		OSHA (Occupational Safety & Health Administration)
X		Outdoor Air Quality
X		Prime/Unique Farmlands:
	X	Sanitary Sewer Systems (Wastewater)
X		Sensitive Habitat
X		Septic Tanks (Wastewater)
X		Solid Waste (Disposal of demolition materials)
X		Threatened and Endangered Species
X		Transportation
X		Wetlands

Attachment 5

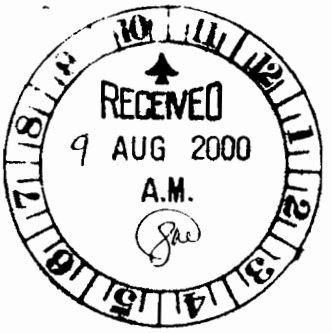
Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 131
REGULATOR COMMENTS

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518)
Website: www.dec.state.ny.us



John P. Cahill
Commissioner

August 8, 2000



Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Finding of Suitability to Lease (FOSL) for
Building 131; Griffiss AFB (ID No. 633003)

I have reviewed the referenced report and have the following comments:

1. Please provide the previous usage of Building 131, with particular emphasis upon any industrial operations which may have been conducted there (for example, why was a 25,000 gallon isopropyl alcohol tank associated with the property?).

2. What regulatory entity is involved in the investigation of Spill # 97-6042? As this is a release of a hazardous substance (i.e., 2-Propanol, CAS # 67-63-0), it would have to be addressed under CERCLA if another group (e.g., perhaps the Chemical Bulk Storage program) were not overseeing the project.

3. Page 6, Table 5.2.1: In light of the footnote regarding the release from UST-0131-02 (i.e., *"The tank was located northeast of the property, however, the contamination associated with the open spill may have migrated onto the property."*) the property categorization of the parcel should be changed from two (2) to seven (7).

Please note that the NYSDEC's comments are limited to the information presented, since we do not have the capacity nor authority to conduct an independent FOSL survey. If you have any questions, please contact me at (518) 457-0549.

Sincerely,

Jonathan Greco

Jonathan Greco
Project Manager
Division of Environmental
Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swerdoski, Reg. 6, Watertown
N. Carrier (Reg. 6, Utica)
L. Hancsak
S. Dimeo

bc: S. Ervolina
M. Chen

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

AUG 09 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Re: Review of the Draft Finding of Suitability to Lease (FOSL) and Supplemental Environmental Baseline Survey (SEBS) for Bldg. 131

Dear Mr. McDermott:

I have reviewed the draft *Finding of Suitability to Lease* (FOSL) and Supplemental Environmental Baseline Survey (SEBS) documents for Building 131, dated July 27, 2000. Upon review of the documents and supporting information, the following are my comments. Please review these comments which apply to both the FOSL and the SEBS and provide your response with the revised FOSL/SEBS for us to review.

1. Include a map indicating all areas restricted (i.e., soil and groundwater), including areas restricted for petroleum and their constituents.

2. Within Section 5.7, last paragraph, please include the following wording:

   "All ground disturbing activities performed by the lessee must first be approved by the Air Force. If approval is received then all ground disturbing activities shall be performed in a manner such that the identification of ordnance related material might occur. Upon discovery of any suspected ordnance-related material the appropriate authorities shall be notified."

Should you have any questions, please me at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Remedial Project Manager

cc: J. Greco, NYSDEC
S. DiMeo, Executive Director (Griffiss Land Development Corporation, 153 Brooks Road, Griffiss AFB, NY 13441

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 131
AFBCA RESPONSE TO REGULATORY COMMENTS

1. The United States Environmental Protection Agency (USEPA, Region 2) submitted comments on 9 August 2000 in response to the 27 July 2000 consolidated draft of the subject FOSL. Their comments are addressed as follows:

a. **Comment Number 1:** AFBCA response - As stated in the last paragraphs of Sections 5.1.1 and 5.1.2, the Lessee will be restricted from conducting any subsurface excavation, digging, drilling, or other ground disturbing activities on the subject property…..

b. **Comment Number 2:** AFBCA response – The last paragraph of Section 5.7 has been modified.

2. The New York State Department of Environmental Conservation (NYSDEC) submitted comments on 8 August 2000 in response to the 27 July 2000 consolidated draft of the subject FOSL. Their comments are addressed as follows:

a. **Comment Number 1:** AFBCA response – The original usage of the building was office space for the Headquarters of the NEADS command that was located on the base. Section 3 has been modified to state prior usage. The 25,000 tank (UST-0131-02) is not located on the property and is stated as such in table 5.2.1. UST-0131-02 was originally part of the Building 100 Fuel System and not associated with Building 131. After the Air Force ceased fuel operations, the tank was then used to store Isopropyl Alcohol for deicing planes.

b. **Comment Number 2:** AFBCA response – The contamination encountered at UST-0131-02 is a petroleum release and not a hazardous substance release. Please note that the spill number associated with this site is 9704490 and is being investigated under project 97-6042.

c. **Comment Number 3:** AFBCA response – Since the release from UST-0131-02 is petroleum, the Category 2 designation is correct.

August 2000

SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

Building 131

Griffiss Air Force Base (AFB), NY

CHAPTER 1 - PURPOSE OF THE SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

1.1 Introduction. This Supplemental Environmental Baseline Survey (SEBS) has been prepared to document the environmental condition of Building 131 and the associated property resulting from the storage, release, or disposal of hazardous substances and/or petroleum products and other environmental conditions over the area's history in order to establish a baseline for use by the United States Air Force (USAF) in making decisions concerning real property transactions. Changes in the environmental condition of the property since publication of the Griffiss AFB Basewide EBS are also documented in this SEBS.

1.2 Description:

The property consists of a total of approximately 3.29 acres. The property includes Building 131 (12,027 sf), the grass area north of the building (includes B/5893 - Outdoor Recreation Pavilion – 476 sf) and the paved parking areas to the south.

CHAPTER 2 - SURVEY METHODOLOGY

2.1 Approach and Rationale. The data used in preparing this SEBS were obtained from the Griffiss AFB Basewide EBS dated September 1994. The EBS was based on record searches, interviews, and visual site inspections (VSIs). The data and information contained in the EBS were prepared in accordance with Department of Defense (DoD) policies and guidance, as they pertain to the procedures for conducting an EBS. A confirmatory VSI was conducted and additional data was collected in July 2000, to verify the condition of the property.

Based on a review of the Basewide EBS and the VSI of the property, the building and surrounding grass area and pavements are considered Department of Defense Environmental Condition Category 2. Category 2 areas are those areas where only release or disposal of petroleum products has occurred.

The United States Environmental Protection Agency (USEPA) has concurred that only the release or disposal of petroleum products has occurred on the property.

2.1.1 Description of Documents Reviewed. A list of documentation reviewed is provided in the Griffiss AFB Basewide EBS. The primary types of studies or investigations included Installation Restoration Program (IRP) studies, USAF Base Realignment and Closure (BRAC) Cleanup Plan (April 1994), the 1993 USAF Real Property Inventory, underground storage tank/above ground storage tank (UST/AST) investigations, National Environmental Policy Act documentation, the 1993 Environmental Compliance Assessment and Management Program

(ECAMP) Environmental Findings Preliminary Report, and Federal, State, and local documentation.

2.1.2 Inspection of Properties Conducted. VSIs of the interior and exterior of the building and associated property were conducted during preparation of the Basewide EBS. A confirmatory VSI was conducted in July 2000 to document any changes in the property condition that had occurred since the initial Basewide EBS was published. The purpose of the VSI was to identify any stained soils, stressed vegetation, leachate seepages, unusual odors, friable insulation, peeling paint, etc., which might indicate environmental concern.

2.1.3 Personnel Interviews. Base personnel were contacted and interviewed, when possible, during the initial records search and VSI trips conducted for the Basewide EBS. Personnel interviewed during the Griffiss AFB Basewide EBS included representatives from civil engineering, real property, industrial engineering, and operations. The USAF Remedial Project Manager (RPM), who is responsible for initiating and managing projects that are necessary to evaluate and cleanup sites that have been contaminated with hazardous substances and waste from past base activities, was also interviewed.

CHAPTER 3 - FINDINGS FOR BUILDING 131

3.1 Environmental Setting. Griffiss AFB occupies approximately 3,540 acres in central Oneida County in upstate New York, in the City of Rome. A description of the area's climate, topography, hydrology, geology and utilities are contained in Section 3.2 of the Griffiss AFB Basewide EBS.

3.2 Property Categorization Resources

3.2.1 Environmental Factors. There are/was no record or evidence of medical/biohazardous waste, ordnance, and radioactive waste releases on the subject property. No sensitive habitats or prime or unique farmland concerns are associated with the property. There are no threatened or endangered species, cultural resources, wetland or floodplain concerns associated with this property.

3.2.2 IRP and AOC Sites Identified to Date. There are two (2) AOC sites located within the subject property.

AOC/IRP Site ID	Site Name
ST-51	Building 100 - Hydrant FuelSystem
SD-52	On Base Groundwater Contamination

ST-51, Building 100 - Hydrant Fuel System, is a Source Removal AOC Site and an interim remedial action was performed during the summer of 1997 under project JREZ95-7050, FFA Source Removals. During the interim remedial action, the underground storage tank (UST-0131-02) was removed. Residual petroleum contamination will be addressed under project JREZ97-6042B, Close Spill Sites. The spill number associated with this site is 9704490 (UST-0131-02). See Section 3.2.4 for further information.

SD-52, On Base Groundwater Contamination, is an AOC and the groundwater on the property was investigated and analytical results are presented in the Draft Final RI report dated December 1996. The Draft Final RI report indicated that no release, disposal, or migration of hazardous substances has occurred into the groundwater at the property.

All AOIs on the subject property have been classified as Covered Under Other Programs or No Further Study.

3.2.3 Underground and Aboveground Storage Tanks (USTs and ASTs)

There is one (1) former UST site located on the property and one (1) former UST site located on adjacent property that may be impacting the property. There are/were no ASTs on the subject property.

Table 3.2.3
Storage Tanks

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-0131-01 Diesel	275	North of B/131	None	Removed 1989	1989
UST-0131-02 Isopropyl Alcohol (JP-4 prior to)	25,000	Northeast of B/131 property **	9704490 Open Being Investigated under project 97-6042	Removed 1997 Project 97-7050	1997

* All tanks listed as closed on the above table have been removed from the Griffiss AFB Major Oil Storage Facility lease.

** The tank was located northeast of the property, however, the contamination associated with the open spill may have migrated onto the property.

3.2.4 Petroleum, Oil and Lubricant Systems (POL)

There was one (1) former POL system that was located on the property. A portion of POL-5685-02 ran north along the east side of Otis Street and south and east of Building 131 (see IRP site ST-51). POL-5685-02 was deactivated in the 1980s, and sampled and closed in place under project JREZ89-0062 in 1993. There is one (1) open spill number 9704490 along the pipeline that is being investigated under project JREZ97-6042B, Close Petroleum Spill Sites. The area of the spill is located within the boundaries of the property (west side).

3.2.5 Wastewater

Building 131 is connected to a sanitary sewer.

3.2.6 Drywells (Wastewater)

There are two (2) drywells located on the property. DRY-0131-01 is located north of Building 131 and was associated with steam condensate drain collection. This drywell was classified as no further study as AOI 42. DRY-0131-02 is located within Building 131 and is associated with a floor drain located in the mechanical room. This drywell was also classified as no further study under AOI 42.

3.2.7 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven munitions related sites are identified to be present within the property. Clearing operations were performed in the summer of 1998 and documented in a final report dated 30 October 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property.

3.2.8 Historic Property

The draft Historic Structures Survey dated October 1995 was issued for review and revised on 14 July 1998. Comments on the revised draft were received from the NY State Office of Parks, Recreation and Historic Preservation on 9 September 1998. Based on the comments received, all buildings located within the property have been released from consideration

3.3 Disclosure Resources

3.3.1 Asbestos

The asbestos survey results of buildings on Griffiss AFB are presented in Appendix H, table H-1 of the Basewide EBS. Subsequent to the publication of the Basewide EBS, a comprehensive asbestos survey was performed in the fall of 1994. ACM was identified in Building 131. The asbestos observed during the July 2000 VSI generally appeared to be in good condition.

3.3.2 Lead-Based Paint (LBP)

LBP may be present in Building 131. The Air Force has classified this facility as a facility with a probability of having a LBP hazard because it was constructed prior to 1978 when the maximum allowable content of lead in paint was reduced. It is unlikely that LBP is present in Building 5893 since it was constructed in 1984.

CHAPTER 4 - FINDINGS FOR ADJACENT PROPERTIES

Adjacent Properties. Appendix A, Table A-1 in the Basewide EBS, identifies the properties that are adjacent to the subject property. Additional information on each site is provided in Appendix D of the Basewide EBS. There are five (5) IRP/AOC sites located on adjacent property that may impact the subject property.

AOC/IRP Site ID	Site Name
SS-08	Building 112-PCB Spill and Lab Drywell
SS-20	Tank Farms 1 and 3
ST-36	Building 110 Aqua System
ST-53	Building 133 Storage Vault
SS-58	Aqua Refueling System

SS-08, Building 112-PCB Spill and Lab Drywell, is an AOC site located to the west of the leased property that has been identified as having soil contaminated with PCBs caused by the leaking of PCB-containing transformers formerly located in the southern section of the building. The site was recommended for a removal action by the USAF in its Draft Final RI report dated December 1996. The interim remedial action fieldwork has been completed under project JREZ97-7006, AOC Removals, and the closure report was forwarded to the regulators. Comments have been received from the USEPA. Closure of this site is pending final regulator approval of the closure report and the issuance of a Proposed Plan and Record of Decision. The remedial action consisted of surface and subsurface soil removal on the exterior south and west sides of the building with disposal of the PCB-contaminated soil off site. Groundwater at this site has not been impacted. Three USTs were also associated with this site. The tanks were removed and closed in 1993.

SS-20, Tank Farms 1 and 3, is a Source Removal AOC site (NYSDEC Spill Number 9111733) located to the west of the leased property. Further investigation will occur to address residual petroleum contamination under project JREZ97-6042, Close Spill Sites.

ST-36, Building 110 Aqua Refueling System, is a Source Removal AOC Site located at the Building 110 property to the west of the leased property. B/110 served as a pumphouse and fuel storage station to a fuel distribution system. The Aqua System consisting of an 8-inch pipe network that provided AVGAS and JP-4 fuel to various portions of the flight line and aprons. A portion of the 8-inch pipe network is located on the property. An interim removal action (Project JREZ89-0062) was completed in 1993. The removal action consisted of the cleaning, sampling and closure of the Aqua System fuel lines, removal of four (4) 25,000-gallon fuel storage tanks, and the removal of associated fuel-contaminated soils. NYSDEC Spill Number 8603763 is associated with the four (4) storage tanks which were located west of the property. Further investigation at this site is scheduled for 2000 under project JREZ97-6042, Close Spill Sites.

SS-53, Building 133 Storage Vault, is an AOC site located east of the leased property that was recommended for a removal action for an oil/water separator (OWS-133) and associated UST-0133-01 and contaminated soils by the Air Force in its Draft Final RI report dated December

1996. The OWS (NYSDEC Spill Number 9201395) and the UST (NYSDEC Spill Number 9702171) were removed in 1997 under project JREZ96-0020, Close Oil Water Separators. Additional soil investigation for the open spill numbers is being conducted under project JREZ96-0020. Additional groundwater investigations were performed under the Supplemental Investigations program. The analytical results from these samples were made available to the regulators in November 1997. Groundwater monitoring is currently being performed in an effort to close the spill numbers.

SS-58, Aqua Refueling System, is an IRP site located near Building 101 property to the west of the leased property. SS-58 served as an Aqua Refueling System Pipeline consisting of 8,480 linear feet of steel pipe network that provided AVGAS and JP-4 fuel to various portions of the apron surrounding Building 101 and to Building 112. A closure action (project JREZ96-7005, Close Aqua System) has been completed. The closure action consisted of the cleaning, sampling and closure of the Aqua System fuel lines and the removal of a 12,000-gallon fuel salvage tank. There are no spill numbers associated with this site.

CHAPTER 5 - PROPERTY CATEGORY

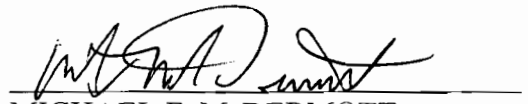
5.1 Conclusions: Based on a review of the Basewide EBS and the VSI of the property, the building and surrounding grass area and pavements are considered Department of Defense Environmental Condition Category 2. Category 2 areas are those areas where only release or disposal of petroleum products has occurred.

The United States Environmental Protection Agency (USEPA) has concurred that only the release or disposal of petroleum products has occurred on the property.

The identified IRP/AOC sites within and adjacent to the property are not expected to pose a concern to the leasing of the property.

CHAPTER 6 - CERTIFICATION

I certify that the property conditions stated in this report are based on a thorough review of available records, visual inspections, and sampling and analysis as noted, and are true and correct to the best of my knowledge and belief.



MICHAEL F. McDERMOTT
BRAC Environmental Coordinator
AFBCA/DA - Griffiss

6/21/00
Date

Attachments:
1. Table H-1 (EBS)
2. Comprehensive Asbestos Survey

Attachment # 1

Griffiss AFB
SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY (SEBS)
Building 131
TABLE H-1 (BASEWIDE EBS)

Bldg	Location	Quantity	Building Element	Inspection Date	Last Inspection	Number	Result	Comments
120	Room 10		Floor Tile	91/06/11		CE910330	ND	12' LIGHT GREEN
120	Warehouse Office		Steam Pipe Fitting	91/29/05		CE910294	70	CHRYSOTILE. PIPE INSULATION IS FIBERGLASS.
123	Outside Chiller		Cooling Fins	90/06/26		GM900176	40	
123	Interior Mechanical Room		Floor Tile	90/07/26		GM900173	3	9" GREY
123	Interior Mechanical Room		Pipe Joint Insulation	90/07/26		GM900174	ND	
123	Outside Chiller		Bottom Side Panels	90/07/26		GM900175	30	CORREGATED TRANSITE PANELS
123	Main Mech Rm		Main Steam Line Insulation	90/08/01		GM900182	82	
123	Main Mech Rm		Chill Water Tank Insulation	90/08/01		GM900183	25	
123	Main Mech Rm		Main Steam Line Elbow	90/08/01		GM900184	ND	
123	Main Mech Rm		Hot Water Supply Insulation	90/08/01		GM900185	ND	
123	Main STM Room		Cold Water Feed Lino	90/08/01		GM900186	15	
123	Boiler Room		Chill Water Elbow Insulation	90/10/24		GM900225	25	
123	Cooling Tower		Cooling Fins	91/01/18		CE910061	50	OUTSIDE OF BUILDING, EAST SIDE.
123	Mechanical Room		Water Line Fitting	91/01/22		CE910062	ND	HOT WATER RETURN LINE TEE.
123	Large PMEL Lab		Sheet Vinyl Flooring	92/04/09		CE920143	28	CHRYSOTILE
123	Large PMEL Lab		Floor Tile	92/04/27		CE920158	5.6	CHRYSOTILE, 12" X 12" TILE WHITE BENEATH SHEET VINYL.
126	Throughout Building		Floor Tile	92/07/13		CE920221	ND	12" X 12" MOTTLED BROWN
127	Carpenter Shop		Pipe Insulation	87/08/06		GM870293	35	Poor condition, NW corner rear entrance. 35% Chrysotile, 15% Amosite
131	Kitchen Pantry		Steam Line Insulation	87/11/19		GM870570	50	Amosite. All asbestos removed in Jan 1989.
131	A/H room		Pipe Insulation	87/11/19		GM870571	20	Chrysotile. All asbestos removed in Jan 1989.
131	South East Room		Unknown	89/03/20		GM890031	ND	
131	A-21 Briefing Room		Floor Tile	90/03/22		GM900089	3	ROOM CONTAINS 3 DIFFERENT TILES. ALL CONTAIN ASBESTOS. CARPERTING HAS BEEN LAID OVER THE TILES.
138	Weather Radar Support		Floor Tile	91/05/07		CE910247	ND	12" WHITE W/BLACK STREAKS.

Attachment # 2

Griffiss AFB
SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY
Building 131
COMPREHENSIVE ASBESTOS SURVEY

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 131 ADMINISTRATIVE

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
AUDIT	Floor:01 Auditorium	1300 sqft	3						Partially Inaccessible Space.
	001 Wall - Sheetrock	2900 sqft		1	5	1	1	Negative	
	001 Ceiling - Sheetrock	1200 sqft		1	2	1	0	Negative	Wall And Ceiling Material Considered Identical. Above Ceiling.
	004 Ceiling - Glued Tile	1200 sqft		1	2	3	0	Negative	12" X 12" White With Large Holes. Above Ceiling.
	005 Ceiling Mastic	1200 sqft	7	1	2	0	0	Positive	Above Ceiling.
	AAA Vinyl Composite Tile Floor	1200 sqft	7	1	2	0	0	Assmd Pos.	12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern. Under Carpet.
	AAA Ceiling Tile - Lay In	928 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White With Indents.
	AAA Ceiling Tile - Lay In	116 sqft	3	1	2	3	0	Assmd Pos.	2' X 4' White Fissured Pattern.
	AAA Door Core Insulation - Fire Do	21 sqft	4	1	2	1	0	Assmd Pos.	Paper In Door Was Not Able To Be Sampled.
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
EXT	Floor:0X Exterior	6900 sqft	8						
	009 Wall - Coating Unspecified	6000 sqft		1	5	0	0	Negative	Dryvit.
MECH	Floor:01 Mechanical Room	256 sqft	7						
	001 Wall - Sheetrock	619 sqft		1	5	1	0	Negative	
	001 Ceiling - Sheetrock	256 sqft		1	2	1	0	Negative	Wall And Ceiling Material Considered Identical.
	003 Mastic Floor	104 sqft	7	1	8	0	0	Positive	
	010 Domestic Water Pipe Insulation	6 ft		1	2	1	0	Negative	
	AAA Vinyl Composite Tile Floor	152 sqft	7	1	8	0	0	Assmd Pos.	12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. ,
	NNN Hvac - Flexible Duct/flex Duct	-		-	-	-	-	Assmd Neg.	Rubber/vinyl Material.
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 131 ADMINISTRATIVE

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
HEAT	Floor:0B Mechanical Room	256 sqft	2						
	008 Piping - Drain System Unspecif	1 ft		2	5	1	0	Negative	Tar Paper Remaining In Wall On Pipe.
	AAA Piping - Steam	1 ft	2	1	5	6	0	Assmd Pos.	Insulation Remaining In Wall Unable To Be Sampled.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Mech Equip. - Heat Exchanger	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
OFF1	Floor:01 Office	5000 sqft	2						
	001 Wall - Sheetrock	17000 sqft		1	5	1	0	Negative	Material Consists Of 2 Layers In Some Rooms.
	001 Ceiling - Sheetrock	4500 sqft		1	2	1	0	Negative	Wall And Ceiling Material Considered Identical. Partially Above Ceiling.
	002 Ceiling - Plaster	453 sqft		2	2	0	0	Negative	Above Ceiling.
	004 Ceiling - Glued Tile	384 sqft		1	2	3	0	Negative	12" X 12" White With Large Holes. Above Ceiling.
	005 Ceiling Mastic	1800 sqft	7	1	2	0	0	Positive	Above Ceiling.
	006 Ceiling - Glued Tile	1400 sqft		1	2	3	0	Negative	12" X 12" White With Small Pinholes. Above Ceiling.
	007 Vinyl Composite Sheet Floor	21 sqft		1	8	0	0	Negative	White With Tan Swirls.
	AAA Vinyl Composite Tile Floor	5000 sqft	7	1	2	0	0	Assmd Pos.	12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern. Under Carpet.
	AAA Ceiling Tile - Lay In	366 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White Fissured Pattern.
	AAA Ceiling Tile - Lay In	1700 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White With Indents.
	AAA Ceiling Tile - Lay In	468 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White Rough Texture.
	AAA Ceiling Tile - Lay In	2100 sqft	2	1	2	3	0	Assmd Pos.	2' X 4' White Fissured Pattern.
	NNN Wall - Sheetrock	-		-	-	-	-	Assmd Neg.	Ultra-wall/untaped Sheetrock, Non-asbestos Containing Material. Over Wall Sheetrock-samples Numbered 1.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Hvac - Flexible Duct/flex Duct	-		-	-	-	-	Assmd Neg.	Above Ceiling. Rubber/vinyl Material.
OFF2	Floor:02 Office	3400 sqft	3						Above Sheetrock Ceiling Was Inaccessible.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 131 ADMINISTRATIVE

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
	001 Wall - Sheetrock	12000 sqft		1	5	1	0	Negative	Material Consists Of 2 Layers In Some Rooms.
	001 Ceiling - Sheetrock	3400 sqft		1	2	1	0	Negative	Wall And Ceiling Material Considered Identical. Above Ceiling.
	AAA Ceiling Tile - Lay In	1600 sqft	2	1	2	3	0	Assmd Pos.	2' X 4' White Fissured Pattern.
	AAA Ceiling Tile - Lay In	432 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White Fissured Pattern.
	AAA Ceiling Tile - Lay In	1400 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White With Indents.
	AAA Vinyl Composite Tile Floor	3400 sqft	7	1	2	0	0	Assmd Pos.	12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern. Under Carpet.
ROOF1	Floor:1R Roof	192 sqft	8						No Suspected Asbestos Containing Material In Space.
ROOF2	Floor:1R Roof	144 sqft	8						No Suspected Asbestos Containing Material In Space.
ROOF3	Floor:1R Roof	168 sqft	8						No Suspected Asbestos Containing Material In Space.
ROOF4	Floor:2R Roof	1200 sqft	7						
	AAA Asphalt And Gravel	1200 sqft	7	1	8	0	0	Assmd Pos.	
ROOF5	Floor:2R Roof	1700 sqft	7						
	AAA Asphalt And Gravel	1700 sqft	7	1	8	0	0	Assmd Pos.	
ROOF6	Floor:3R Roof	4600 sqft	7						
	AAA Asphalt And Gravel	4600 sqft	7	1	8	0	0	Assmd Pos.	
TOIL1	Floor:01 Toilet Room	364 sqft	2						Pipe Chase In Space Was Inaccessible.
	001 Wall - Sheetrock	1200 sqft		1	5	1	0	Negative	
	001 Ceiling - Sheetrock	40 sqft		1	2	1	0	Negative	Wall And Ceiling Material Considered Identical. Above Ceiling.
	002 Ceiling - Plaster	307 sqft		1	2	0	0	Negative	Wall And Ceiling Material Considered Identical. Above Ceiling.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 131 ADMINISTRATIVE

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
	002 Wall - Plaster	1200 sqft		1	2	0	0	Negative	Behind Wall.
	AAA Vinyl Composite Tile Floor	40 sqft	7	1	8	0	0	Assmd Pos.	Partially Under Carpet. 12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern.
	AAA Ceiling Tile - Lay In	324 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White With Indents.
	AAA Ceiling Tile - Lay In	16 sqft	3	1	2	3	0	Assmd Pos.	2' X 4' White Fissured Pattern.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Above Ceiling. Fiberglass, Non-asbestos Containing.
	NNN Hvac - Flexible Duct/flex Duct	-		-	-	-	-	Assmd Neg.	Above Ceiling. Rubber/vinyl Material.
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
TOIL2	Floor:02 Toilet Room	272 sqft	4						Pipe Chase In Space Was Inaccessible.
	001 Wall - Sheetrock	938 sqft		1	5	1	0	Negative	
	002 Wall - Plaster	938 sqft		1	2	0	0	Negative	Behind Wall.
	002 Ceiling - Plaster	272 sqft		1	2	0	0	Negative	Above Ceiling. Wall And Ceiling Material Considered Identical.
	AAA Ceiling Tile - Lay In	252 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White With Indents.
	AAA Ceiling Tile - Lay In	20 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White Fissured Pattern.
	AAA Vinyl Composite Tile Floor	20 sqft	7	1	2	0	0	Assmd Pos.	12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern. Under Carpet.

JG

TO: Mr. Douglas Pocze, USEPA
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

PHONE: 212-637-4432 FAX: 212-637-4360

Mr. Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

PHONE: 518-457-3976 FAX: 518-457-8990

FROM: Cathy Jerrard
Air Force Base Conversion Agency
Environmental Section
153 Brooks Road
Rome NY 13441-4105

PHONE: 315-330-2276 FAX: 315-330-4062

Cc: Michael Quinlan, AFBCA FAX: 508-435-9641

DATE: 15 Aug 00
No. of Pages Including Cover Sheet: 11

MESSAGE: [illegible] DRC-846 DRC-842 [illegible]

[illegible] Please [illegible] you have any questions.

Memo

OHM Remediation Services Corp.

TO: Cathy Jerrard
AFBCA

FROM: Mike Oumian MGO

CC: Roy Willis - AFCEE
Joe Overend - IT OHM

DATE: August 11, 2000

SUBJECT: Preliminary Results for DRY-842 Site
AFCEE Contract # F41624-94-D-8106 DO 7

The purpose of this memo is to present the preliminary data for the samples collected at the above-referenced site. Per the Work Plan, OHM removed 0.6 feet of soil from the bottom of Drywell 842 (DRY-842) on 24 July 2000. One confirmation sample was collected from the bottom of the drywell following the soil removal to assess the presence and concentration of any remaining contaminants. Refer to Figure 1 for a Site Plan with sampling locations.

Removal Action Sample Results

Confirmation sample D842SD02 was analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and Target Analyte List (TAL) metals. Analytical results (positive detections only) are summarized in Table 1. New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 soil cleanup criteria and site background (SB) values for metals for all detected compounds are also provided in Table 1. Analytical results for previous sample D842SD01 are included in Table 1 for comparative purposes. This sample was collected prior to the soil removal for waste characterization and was analyzed for the full RCRA metals.

No VOCs, SVOCs or PCBs were detected in the confirmation sample D842SD02. Arsenic was detected at a concentration of 1.7 mg/kg, which slightly exceeded its TAGM criteria of 7.5 mg/kg and its SB value of 3.9 mg/kg. Arsenic was present at 6.9 mg/kg prior to the removal action. Beryllium (0.71 mg/kg), lead (20.1 mg/kg), and zinc (94.5 mg/kg) were detected at concentrations above their respective TAGM 4046 criteria, but below their SB levels. No other metals were detected above their respective TAGM 4046 and SB levels.

Recommendations

Based on the confirmation sample results, OHM recommends no further action at DRY-842. The soil removed from the bottom of the drywell will be properly characterized and disposed of off-site.

DRY-842 Memo

Please feel free to contact me at 308.697.6[illegible] with any questions or concerns regarding this memo or the attached data summary and figures.

Table 1 - DRY-842 SUMMARY TABLE OF DETECTED COMPOUNDS

Sample Number =>			D842S001	D842S002
Sample Matrix =>			Soil	Soil
Sample Type =>			WC	CONF
VOCs (mg/kg)	**TAGM 4046**			
None detected	n/a		---	---
SVOCs (mg/kg)	**TAGM 4046**			
None detected	n/a		---	---
Metals (mg/kg)	**TAGM 4046**	**SB**		
Aluminum	---	18306	n/a	7459.9
Arsenic	7.5	4.9	**66**	**J 13.5**
Barium	300	71	40	22.1
Beryllium	0.16	0.73	n/a	**J 0.5**
Cadmium	1	1.1	n/a	J 0.09
Calcium	---	23821	n/a	1372.6
Chromium	10	22.6	**13**	J 9.7
Cobalt	30	19	n/a	J 5
Copper	25	43	n/a	19.6
Iron	2000	43750	n/a	**16101.5**
Lead	* 400	36	14	J 6.5
Magnesium	---	1175	n/a	2550.5
Manganese		2106	n/a	363.6
Mercury	0.1	0.1	**0.1**	J 0.05
Nickel	13	46	n/a	12.9
Potassium		1993	n/a	1432.8
Selenium	2	0.340	---	J 0.6
Sodium	---	259	n/a	56.9
Vanadium	150	36	n/a	14.9
Zinc	20	120	n/a	**91.3**
PCBs (mg/kg)	**TAGM 4046**			
None detected			---	---

Notes:

n/a = not analyzed

--- = not detected

WC = waste characterization

CONF = confirmation

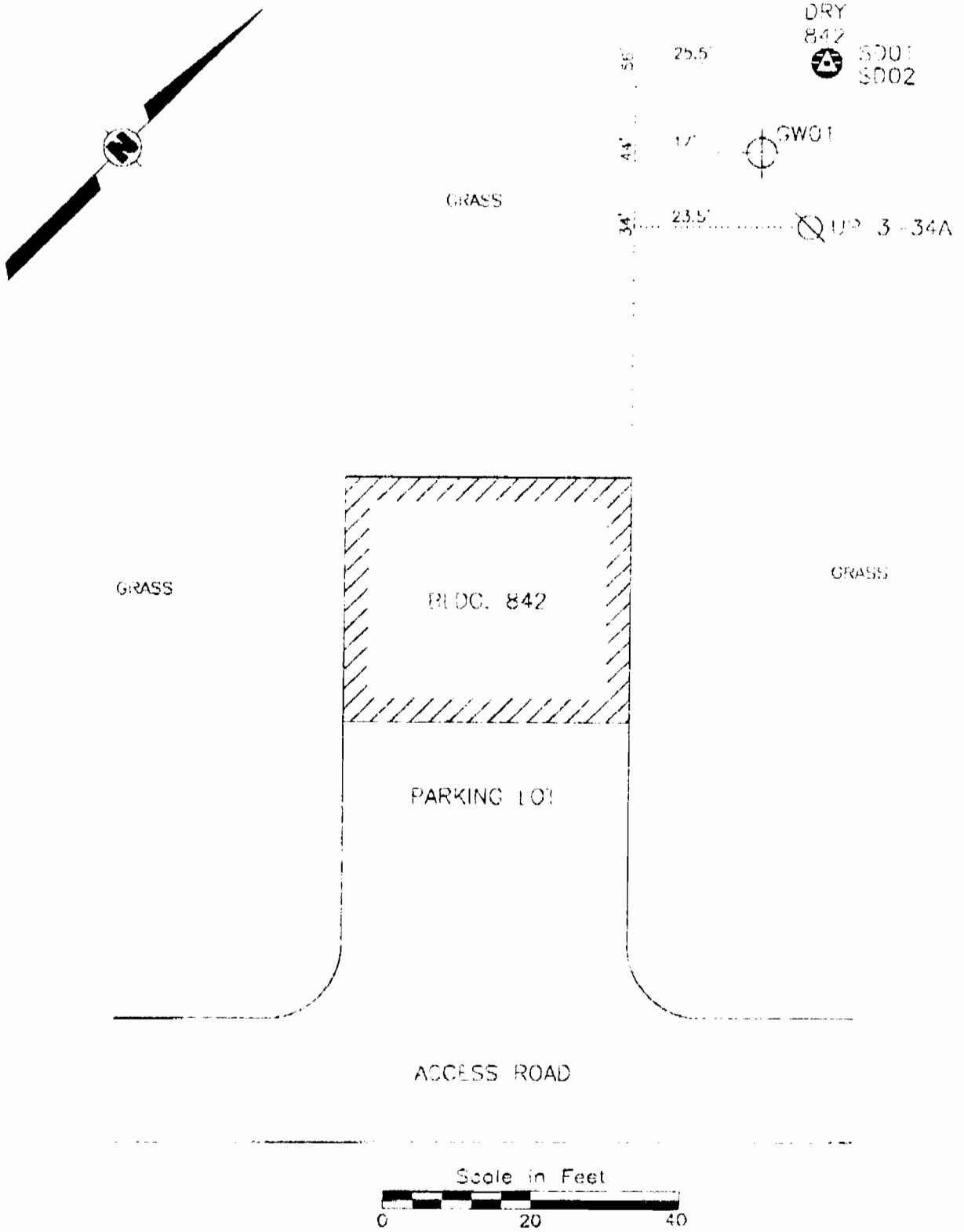
mg/kg = milligrams per kilogram

J = estimated concentration between method detection limit and reporting limit

SB = Site specific or Site-specific background values

TAGM 4046 = New York State Soil Screening Criteria

* = EPA screening criteria for lead in soil (OSWER Directive #9355.4-12 July 1994)



CAD File: 917549-A3

Plot Scale 1 = 1 revision C

OHM Remediation Services Corp.

OHM Project No. 917549

Drawn By:	Checked By:	Approved By:
S. McGinn	M. Quinlan	M. Quinlan
Date:	Scale:	Drawing No:
08/09/00	AS SHOWN	917549-A3

FIGURE

DRYWELL 842 SAMPLING LOCATIONS

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR

AFCEE
BROOKS AIR FORCE BASE, TEXAS

Memo

OHM Remediation Services Corp.

TO: Cathy Jerrard
AFBCA

FROM: Mike Quinlan MQ

CC: Roy Willis - AFCEE
Joe Overend - IT-OHM

DATE: August 11, 2000

SUBJECT: Preliminary Results for DRY-846 Site
AFCEE Contract #F41624-94-D-8106; DO 7

The purpose of this memo is to present preliminary data for the confirmation sample collected at the above-referenced site. Per the Work Plan, OHM removed 0.6 feet of soil from the bottom of Drywell 846 (DRY 846) on 24 July 2000. One confirmation sample was collected from the bottom of the drywell following the soil removal to assess the presence and concentration of any remaining contaminants. Refer to Figure 1 for a Site Plan with sampling locations.

Removal Action Sample Results

Confirmation sample D846SL02 was analyzed for Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and Target Analyte List (TAL) metals. Analytical results (positive detections only) are summarized in Table 1. New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 soil screening criteria for all detected compounds and site background (SB) values for metals are also included. Analytical results for previous sample D846SL01 are included in Table 1 for comparative purposes. This sample was collected prior to the soil removal for waste characterization and was analyzed for the eight RCRA metals.

No VOCs or PCBs were detected in confirmation sample D846SL02. The SVOC bis(2ethylhexyl) phthalate (BEHP) was detected at an estimated concentration of 0.15 mg/kg, which is well below its TAGM criteria. BEHP was present at 18 mg/kg prior to the removal action. Cadmium was detected at a concentration of 1.5 mg/kg, which is slightly above its TAGM 4046 criteria and SB value of 1 mg/kg and 1.1 mg/kg, respectively. Beryllium (0.3 J mg/kg), chromium (12 J mg/kg), and iron (14,540) were detected at concentrations above their respective TAGM criteria, but below their respective SB values. Selenium was detected at an estimated concentration of 0.5 mg/kg, which is below its TAGM criteria of 2 mg/kg, but above its SB value of 0.34 mg/kg. No other metals were detected at concentrations above their respective TAGM 4046 and SB criteria.

Recommendations

Based on the confirmation sample results, OHM recommends no further action at DRY-846. The soil removed from the bottom of the drywell will be properly characterized and disposed of off-site.

Please feel free to contact me at 508.497.6130 with any questions or concerns regarding this memo or the attached data summary and figure.

Table 1 - DRY-846 SUMMARY TABLE OF DETECTED COMPOUNDS

	Sample Number =>		D842SD01	D842SD02
	Sample Matrix =>		Soil	Soil
	Sample Type =>		WC	CONF
VOCs (mg/kg)	**TAGM 4046**			
None detected	n/a		---	---
SVOCs (mg/kg)	**TAGM 4046**			
bis(2)ethylhexylphthalate	50		18	J 0.15
Metals (mg/kg)	**TAGM 4046**	**SB**		
Aluminum	---	18306	n/a	6164.8
Arsenic	7.5	4.9	---	J 3.5
Barium	300	71	**210**	18.9
Beryllium	0.16	0.75	n/a	**J 0.3**
Cadmium	1	1.1	**13**	**1.3**
Calcium	---	23821	n/a	1798.1
Chromium	10	22.6	**150**	**J 12**
Cobalt	30	19	n/a	J 3.9
Copper	25	43	n/a	15.7
Iron	2000	43750	n/a	**14,540**
Lead	* 400	36	**240**	J 5.3
Magnesium	---	7175	n/a	2486.1
Manganese	---	2106	n/a	100.8
Mercury	0.1	0.1	**0.49**	---
Nickel	13	46	n/a	9.5
Potassium	---	1993	n/a	1272.1
Selenium	2	0.340	---	**0.5 J**
Sodium	---	259	n/a	51
Vanadium	150	36	n/a	12.5
Zinc	20	120	n/a	37.9
PCBs (mg/kg)	**TAGM 4046**			
None detected	1		---	---

Notes:

n/a = not analyzed

--- = not detected

WC = waste characterization

CONF = confirmation

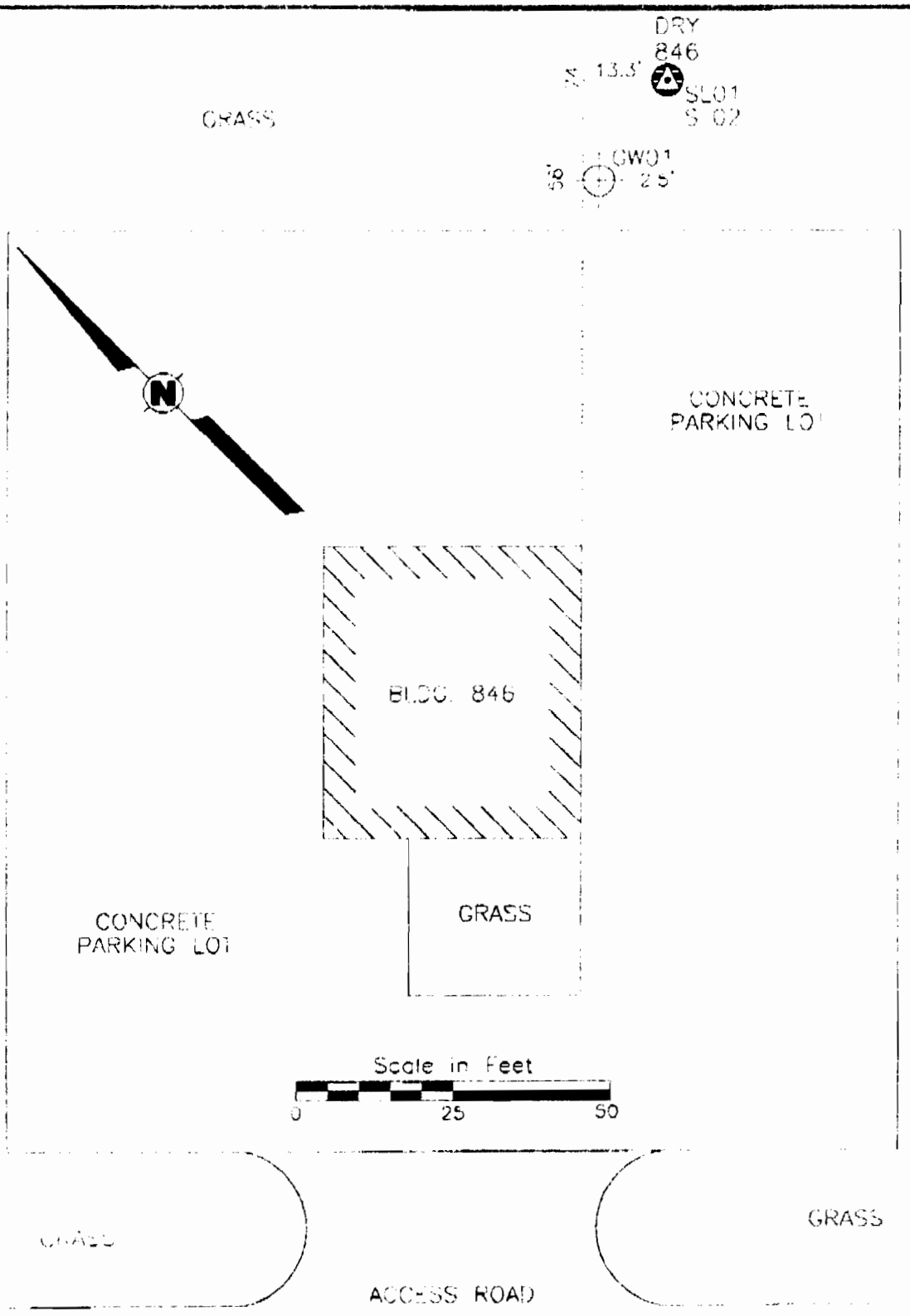
mg/kg = milligrams per kilogram

J = estimated concentration between method detection limit and reporting limit

SB = Site specific backgr Site-specific background values

TAGM 4046 = New York State Soil Screening Criteria

* = EPA screening criteria for lead in soil (OSWER Directive #9355.4-12, July 1994)



OHM Remediation Services Corp.
OHM Project No. 917549

Drawn By:	Checked By:	Approved By:
S. McGinn	M. Quinlan	M. Quinlan
Date:	Scale:	Drawing No.
08/09/00	AS SHOWN	917549-A4

FIGURE 1
DRYWELL 846 SAMPLING LOCATIONS
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK
PREPARED FOR
AFCEE
BROOKS AIR FORCE BASE, TEXAS

CAD File: 917549-A4
Plot Scale: 1 = 1 Revision: 0

Memo

OHM Remediation Services Corp.

TO: Cathy Jerrard
AFBCA

FROM: Mike Quinlan MGQ

CC: Roy Willis – AFCEE
Joe Overend – IT/OHM

DATE: August 11, 2000

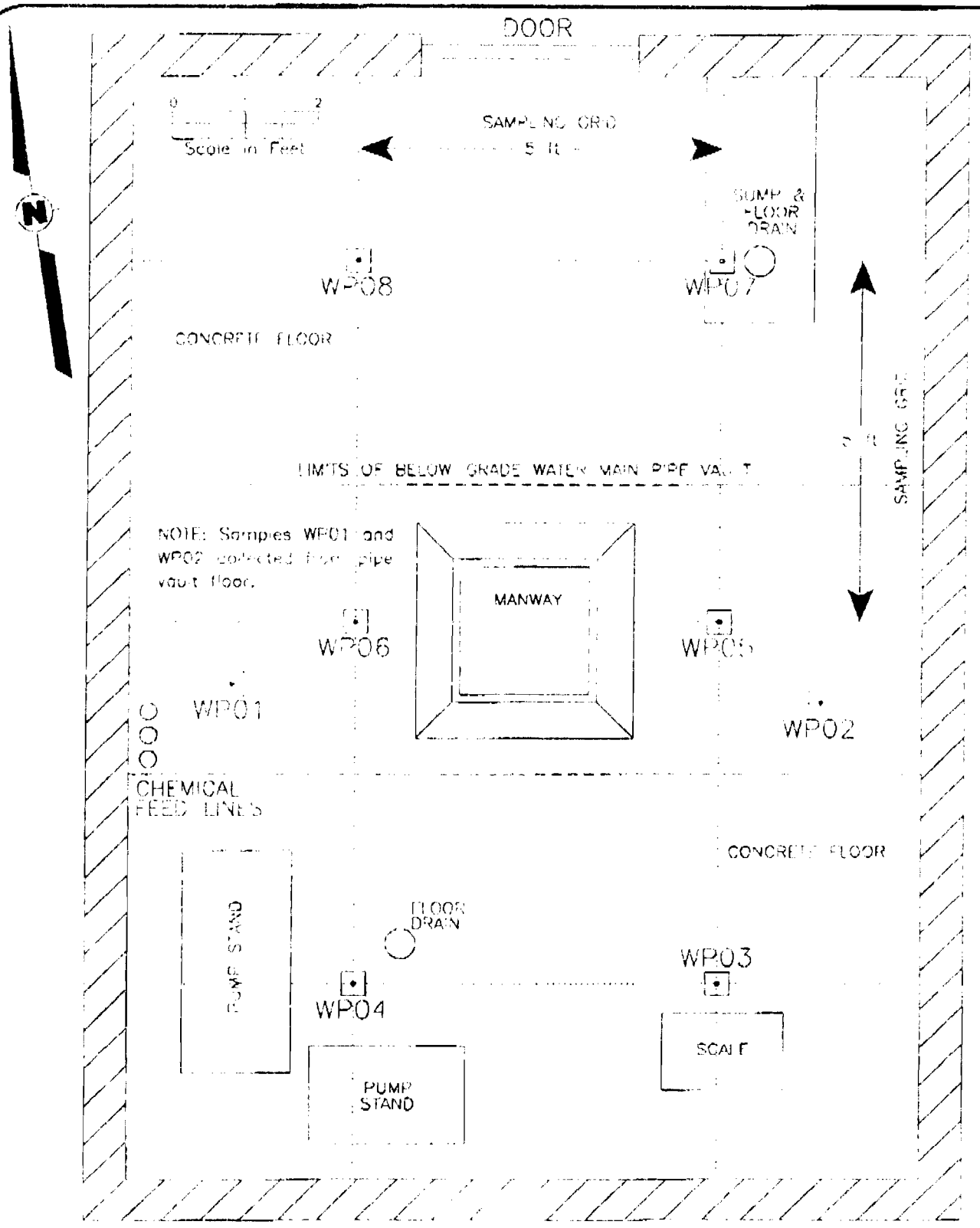
SUBJECT: **Wipe Sample Results for Building 211**
AFCEE Contract #F41624-94-D-8106; DO 7

The purpose of this memo is to provide the results of the confirmation wipe samples collected from Building 211. A total of 8 wipe samples were collected subsequent to decontamination of the ground floor and vault floor of the building to assess the presence and extent of residual mercury contamination on these surfaces. Two of the samples (B211WP01 – 02) were collected from the vault floor, and the other six samples (WP03 – 08) were collected from the ground floor on a five foot square grid. Refer to Figure 1 for the sample locations. Due to laboratory problems the results of the two wipe samples from the vault were not valid and will be resampled. The results of the six samples collected from the ground floor were all below the recommended action level of 5µg/100cm². The results are provided below in Table 1.

Table 1 Building 211 Mercury Wipe Sample Result

Sample ID	Sample Location	Sample Result	Recommendation
D211WP01	Vault Floor	Invalid	Resample
D211WP02	Vault Floor	Invalid	
D211WP03	Ground Floor	2.24 µg/100cm²	No Further Action
D211WP04	Ground Floor	2.88 µg/100cm²	
D211WP07	Ground Floor	2.56 µg/100cm²	
D211WP05	Ground Floor	4.80 µg/100cm²	
D211WP06	Ground Floor	2.08 µg/100cm²	
D211WP08	Ground Floor	4.16 µg/100cm²	

Based on the confirmation wipe sample results, OHM recommends recollecting the two samples from the vault and no further action for the ground floor. Waste generated from decontamination activities will be properly characterized and disposed of off-site. Please feel free to contact me at 508 497 6130 with any questions or concerns regarding this memo.



CAD File: 917549-A16

Plot Scale: 1 = 1

OHM Remediation Services Corp.
OHM Project No. 917549

Drawn By:	Checked By:	Approved By:
S. McGinn	M. Quinlan	M. Quinlan
Date:	Scale:	Drawing No.
08/10/00	AS SHOWN	917549-A16

FIGURE 1
BLDG. 211 WIPE SAMPLING LOCATIONS
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK
PREPARED FOR
AFCEE
BROOKS AIR FORCE BASE, TEXAS

Not done. Req's more work. JS 8/11/00

Memo

OHM Remediation Services Corp.

TO: Cathy Jerard
AFBCA

FROM: Mike Quinlan MQ

CC: Roy Willis – AFCEE
Joe Overend – 11 OHM

DATE: August 8, 2000

SUBJECT: Wipe Sample Results for Building 100 Generator Rm.
AFCEE Contract #F41624-91-D-8106; DO 7

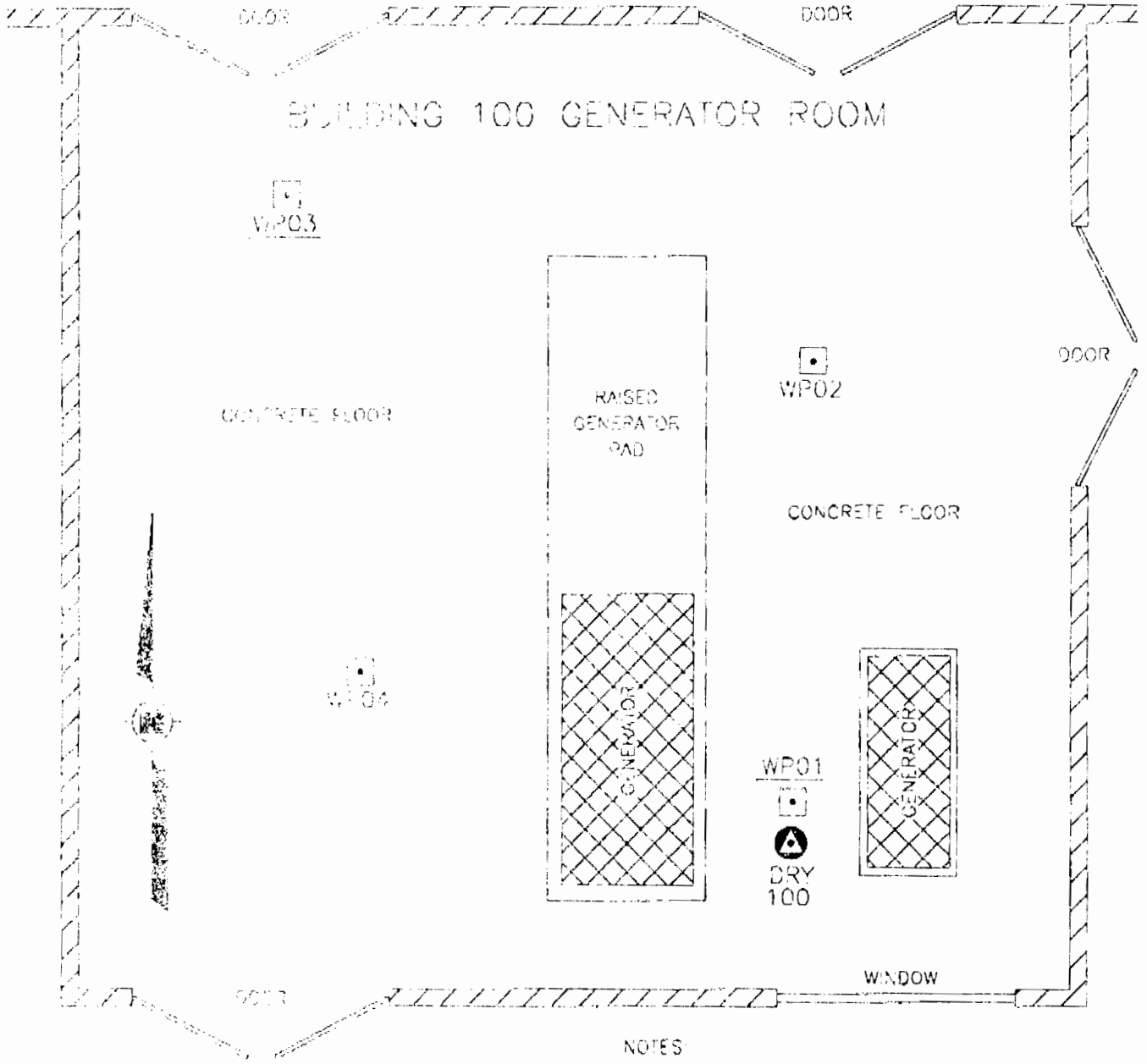
The floor of the generator room in Building 100 was decontaminated per OHM's recommendation in the Preliminary Phase I Results and Recommendations Report, dated July 2000. Upon completion of decontamination activities, four confirmation wipe samples (D100WP05–WP08) were collected to determine if any residual PCB contamination remained above the EPA guidance value of 10 µg/100cm^2. Based on these results, OHM re-cleaned the northern half of the generator room floor and took an additional two confirmation wipe samples (WP09 & WP10). The results of this latest round of wipe samples indicate that residual PCBs are still present in the northwest quadrant of the floor at a concentration of 18 µg/100cm^2,which is slightly above the EPA guidance value. Confirmation wipes sample results for each sampling event are provided in Table 1. Figures 1 and 2 show sample locations from the initial wipe sampling event and the confirmation sampling event following the initial floor decontamination, respectively. Figure 3 provides the locations for the latest round of confirmation wipe samples.

Table 1 –Wipe Sample Results
Building 100 Generator Room

Sample ID	Sample Event	Sample Location	Sample Result	Recommendation
D100WP01	Initial	SE quadrant	22.4 ug/100 cm^2	Decontaminate entire floor area.
D100WP02	Initial	NE quadrant	3.7 ug/100 cm^2	
D100WP03	Initial	NW quadrant	12.8 ug/100 cm^2	
D100WP04	Initial	SW quadrant	4.3 ug/100 cm^2	
D100WP05	After 1st Decon	SE quadrant	5.0 ug/100 cm^2	Decontaminate north half of the area.
D100WP06	After 1st Decon	NE quadrant	15.6 ug/100 cm^2	
D100WP07	After 1st Decon	NW quadrant	9.6 ug/100 cm^2	
D100WP08	After 1st Decon	SW quadrant	5.4 ug/100 cm^2	
D100WP09	After 2nd Decon	NE quadrant	2.6 ug/100 cm^2	Decontaminate NW quadrant.
D100WP10	After 2nd Decon	NW quadrant	18.2 ug/100 cm^2	

Bldg. 100 Memo

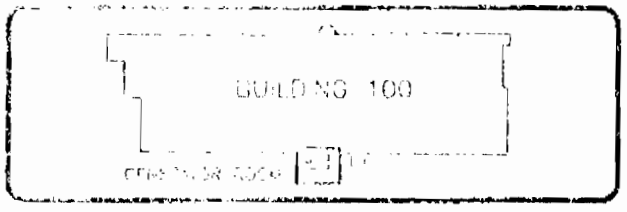
OHM will conduct an additional cleaning on the northwest quadrant of the floor, followed by collection of one confirmation wipe sample. Please feel free to contact me at 508.497.6130, with any questions or concerns regarding this memo.



NOTES

WP02 Wipe sampling location D100WP02.

WP03 Wipe sample result in excess of EPA guidance value of 10 ug/100 cm²



Scale in Feet

0 5 10

OHM Remediation Services Corp.

OHM Project No. 917549

Drawn By:	Checked By:	Approved By:
S. McGinn	M. Quinlan	V. Quinlan
Date:	Scale:	Drawing No.
08/01/00	AS SHOWN	917549-A2

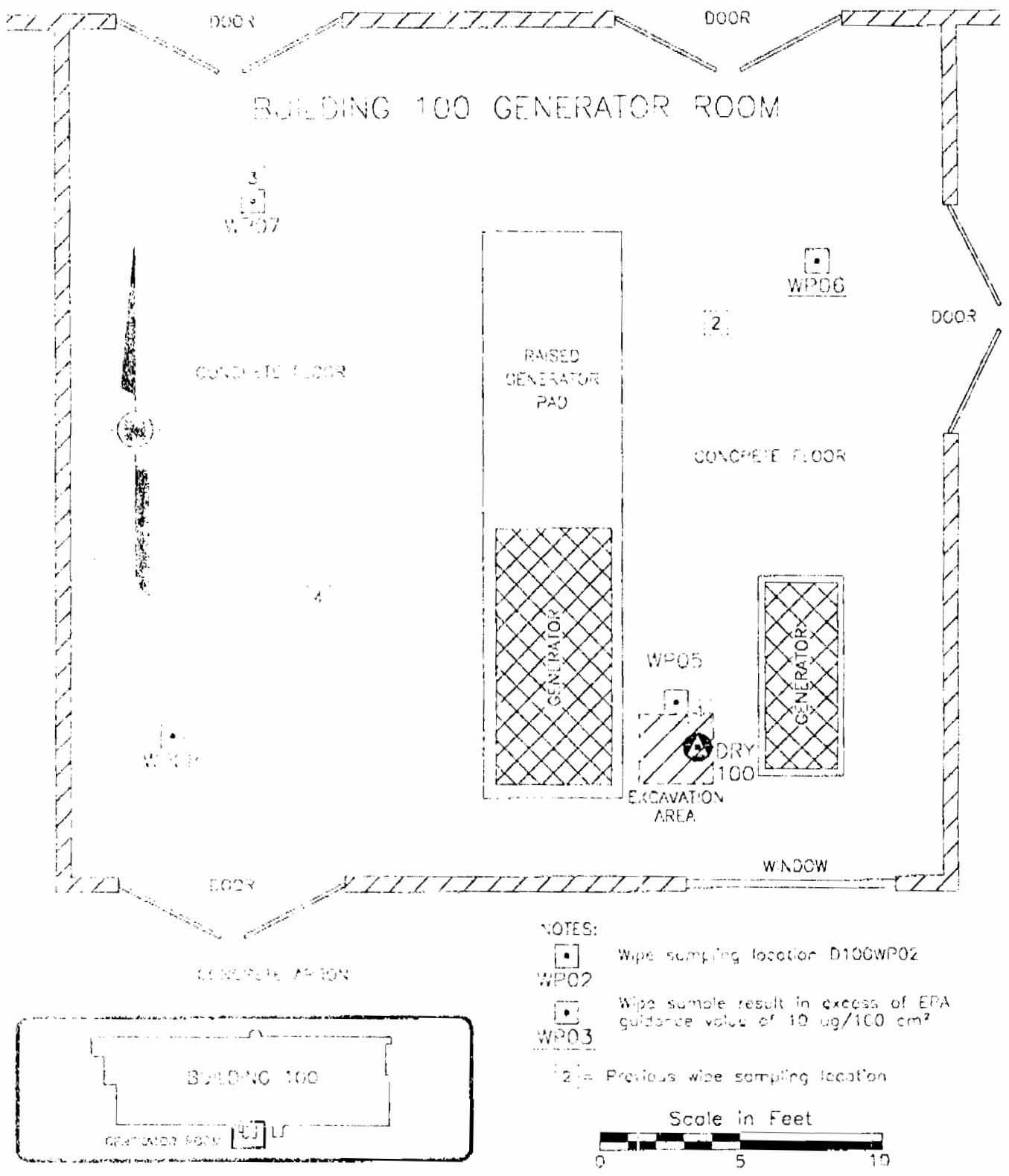
FIGURE 1

INITIAL PCB WIPE SAMPLE LOCATIONS
BUILDING 100 GENERATOR ROOM

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR

AFCEE
BROOKS AIR FORCE BASE, TEXAS



OHM Remediation Services Corp.

O H M Project No. 917549

Drawn By: S. McGinn	Checked By: M. Quinlan	Approved By: M. Quinlan
Date: 09/01/00	Scale: As Shown	Drawing No. 917549-A14

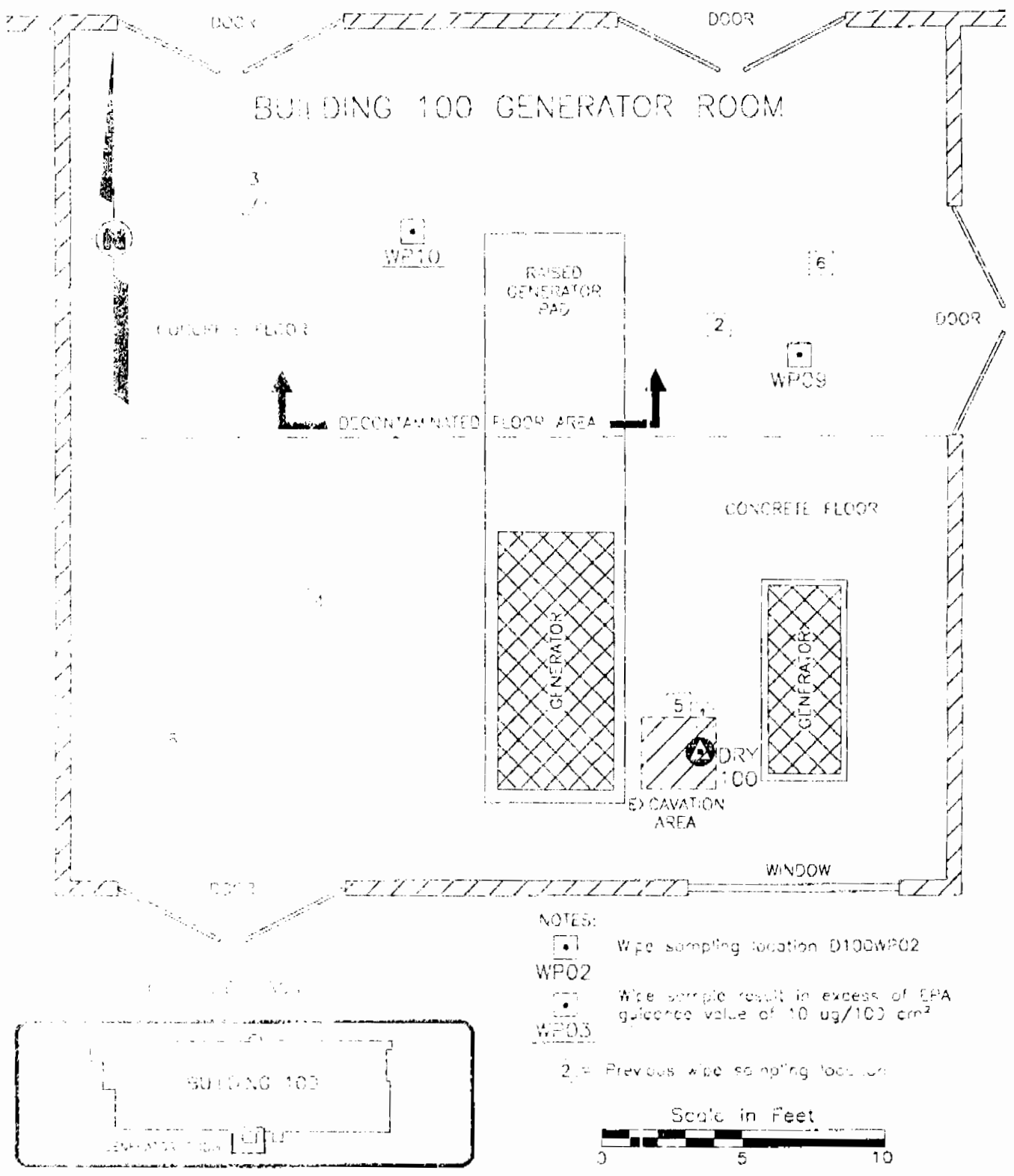
FIGURE 2

PCB CONFIRMATION WIPE SAMPLE LOCATIONS
BLDG 100 GENERATOR ROOM

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR

AFCEE
BROOKS AIR FORCE BASE, TEXAS



OHM Remediation Services Corp.

Drawn By: B. McGinn
Checked By: M. Quinlan
Approved By: M. Quinlan
Date: 08/01/00
Project No. 91-7545-A15
Drawing No. 91-7545-A15

FIGURE 3
PCB CONFIRMATION WIPE SAMPLE LOCATIONS
BLDG. 100 GENERATOR ROOM (ROUND 2)
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK
PREPARED FOR
AFCEE
BROOKS AIR FORCE BASE, TEXAS

looks good.
8/11/00

OHM

OHM Remediation Services Corp.

TO: Cathy Jones
AFBCA

FROM: Mike Quinlan/OHM

CC: Roy Willis/AFCEE
Joe Overcash/OHM

DATE: August 8, 2000

SUBJECT: Preliminary Results for WW-222 Site
AFCEE Contract F41624-91-D-8106, DO 7

The purpose of this memo is to present the preliminary data for the samples collected at the Wastewater Grit Trap Project Work Plan. OHM has removed the grit trap at Wastewater Site 222/WW-222 and conducted confirmation sampling on the surrounding soil to determine the extent of any soil contamination associated with the grit trap. Refer to Figure 1 for a Site Plan and Figure 2 for the Site Location Map.

Removal Action Sampling Results

The confirmation samples on June 12 July 2000 and samples were collected on the following day from the bottom (W222SS01) and sidewalls of the excavation (W222SS02 - SS04). A field split sample was also collected from the bottom of the excavation (W222SS10). The grit trap was removed by the excavation of Building 222 and was located using survey data from previous investigations. The soil and fill material that was found during excavation was sampled (W222WC01) on roll-off to characterize the material for waste disposal.

Samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, and metals. Analytical results (positive detections only) are summarized in Table 1. New York State Department of Environmental Conservation (NYSDEC) TAGM 4046 soil screening criteria or site background values for metals are also listed in Table 1 for comparison purposes. The results indicate the presence of the acetone and methylene chloride at low concentrations in all of the samples. These compounds are common laboratory analytes and were also noted in the field quality control blanks. Carbon disulfide and 2-butanone were also detected at low concentrations in the characterization sample (W222WC01). Both acetone and methylene chloride and carbon disulfide were detected in the trip blank.

Several polynuclear aromatic compounds were detected in the characterization sample at low concentrations. Benzo(a)pyrene was the only compound detected above TAGM 4046 value

WW-222 Memo

Benzo[a]pyrene was detected at 0.39 milligrams per kilogram (mg/kg) compared to the TAGM 4046 value of 0.061 mg/kg. No other organics were detected above TAGM 4046 criteria. Pyrene was detected well above TAGM 4046 criteria in the confirmation sample and associated field duplicate collected from the bottom of the excavation. Chlordane was detected in confirmation samples collected from the bottom, west sidewall (WW222SS04) and the duplicate sample at concentrations orders of magnitude below the respective TAGM 4046 criteria.

Cadmium and zinc were detected slightly above background and TAGM 4046 values in the duplicate sample collected from the bottom of the excavation. Vanadium was detected slightly above background but below the TAGM 4046 criteria in the bottom sample and duplicate. Selenium was detected in two sidewall samples at estimated concentrations marginally above background but below the TAGM 4046 value. Cadmium was detected slightly above background in two sidewall samples. TAGM 4046 does not list a criteria for calcium. No other metals were detected above background values.

Recommendations

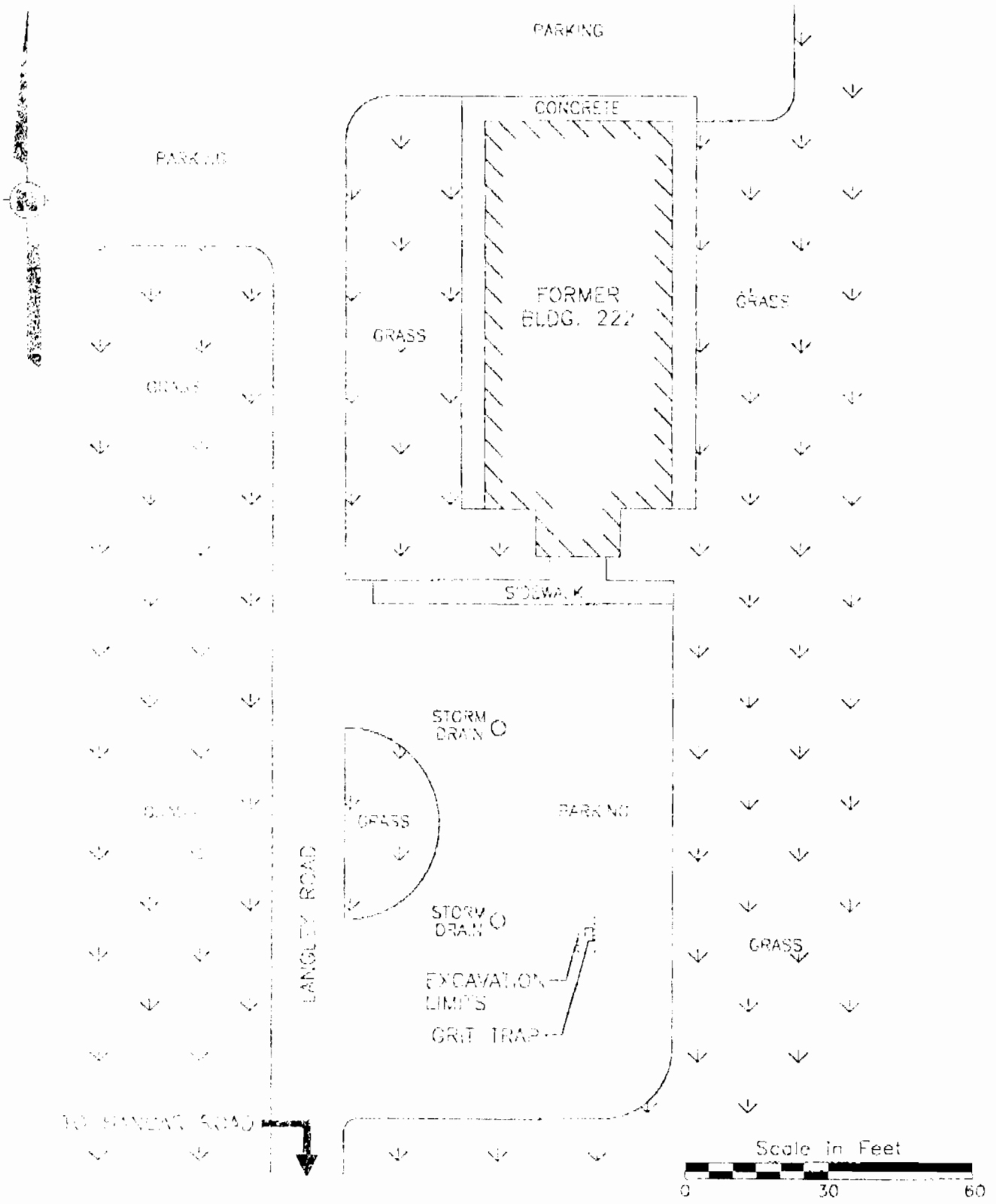
Based on the results of the analytical testing and the fact that there was no sign of contamination noted during the removal action, OHM recommends the following with regard to site WW-222:

- Properly dispose of the soil and the grit trap contents off site, and
- Backfill the excavation with the soil removed during excavation and replace the asphalt that was removed to access the trap.

Please call me, Tom Lowe, at 518-407-0160 with any questions or concerns regarding this memo and the attached summary and figures.

Table 1 - WW-227 SUMMARY TABLE SB-1 thru SB-11 & MW1

| | | |



OHM Remediation Services Corp.

FIGURE 1

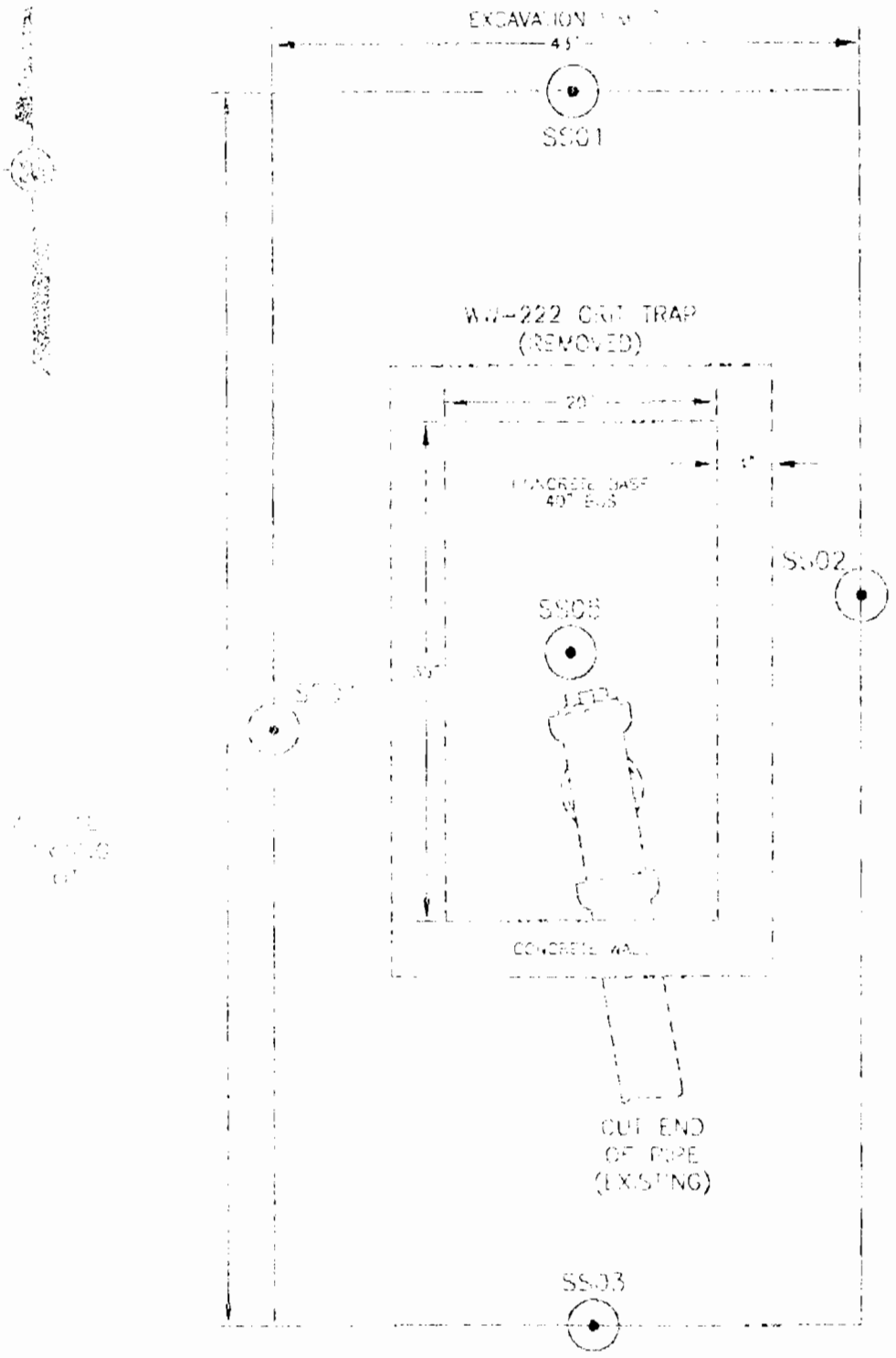
NW-222 SITE PLAN

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR

AFCEE
BROOKS AIR FORCE BASE, TEXAS

Drawn By	Checked By	Approved By
K. McGinn	M. Quinn	M. Quinn
08/03/00	As Shown	917548-A12



OHM Remediation Services Corp.

FIGURE 2

WW-222 SOIL SAMPLING LOCATIONS

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR

AFCEE

BROOKS AIR FORCE BASE, TEXAS

Drawn By: S. M. Cline	Checked By: M. [illegible]	Approved By: M. Quinlan
Date: 08/03/00	Scale: [illegible]	Drawing No: 917349-A13

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518)
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

August 8, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Finding of Suitability to Lease (FOSL) for
Building 131; Griffiss AFB (ID No. 633003)

I have reviewed the referenced report and have the following comments:

1. Please provide the previous usage of Building 131, with particular emphasis upon any industrial operations which may have been conducted there (for example, why was a 25,000 gallon isopropyl alcohol tank associated with the property?).

2. What regulatory entity is involved in the investigation of Spill # 97-6042? As this is a release of a hazardous substance (i.e., 2-Propanol, CAS # 67-63-0), it would have to be addressed under CERCLA if another group (e.g., perhaps the Chemical Bulk Storage program) were not overseeing the project.

3. Page 6, Table 5.2.1: In light of the footnote regarding the release from UST-0131-02 (i.e., *"The tank was located northeast of the property, however, the contamination associated with the open spill may have migrated onto the property."*) the property categorization of the parcel should be changed from two (2) to seven (7).

Please note that the NYSDEC's comments are limited to the information presented, since we do not have the capacity nor authority to conduct an independent FOSL survey. If you have any questions, please contact me at (518) 457-0549.

Sincerely,

Jonathan Greco

Jonathan Greco
Project Manager
Division of Environmental
Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swerdoski, Reg. 6, Watertown
N. Carrier (Reg. 6, Utica)
L. Hancsak
S. Dimeo

bc: S. Ervolina
M. Chen

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518)
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

JG,
Was a project review done on this report? MC 8/3/00

August 2, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Interim Remedial Action Report; Bldgs. 20, 112, 222 & 255: Griffiss Air Force Base (Site ID No. 633006)

I have reviewed the referenced report and have the following comments:

General:

1. The report is very difficult to read and evaluate due to its arrangement in chronological order, as opposed to separating out the activities by site. Future submittals should follow a more standardized format, and all information pertaining to an individual site should be coherently assembled. For the purpose of a final version of this report and/or the submission of a proposed plan(s), the following information must be clear:

   a) The amount of soil excavated.

   b) The volume of the stockpiles and the number of samples used to characterize each.

   c) The volume of soils sent off-site as hazardous waste and the volume of soils sent off-site as a solid waste.

   d) A map depicting the final excavation in the horizontal and vertical planes, with sample locations clearly identified.

   e) Tables summarizing the results of the post-excavation samples and the stockpile samples.

2. It is unclear from the report whether the data has been formally validated by the USACOE's, and if so, what level of validation was applied. Please include such a discussion in the final document.

Bldg. 255:

No specific comments.

Bldg. 20:

1. In future remedial actions, the waste materials should be stored in a secure area - not in a building occupied by a lessee. Testing and disposal of the materials should not take longer than 90 days, thereby avoiding a potential RCRA violation should the materials be determined hazardous.

2. Appendix 8-13-98, 3rd page: The results of the analysis on sample GAFB 20 CE 1342H are reported in ug/l, however, the sample is characterized as a soil. Please explain.

3. Appendix 8-4-99, 4th page: I am unable to find the results of the referenced Building 20 rinse water analysis. Please include in final.

Bldg. 222:

1. The extremely high sample results obtained in the post-excavation samples following the first lift of materials should have lead to the segregation of those soils from all future excavated soils. I note this because it is quite possible that the first lift of soils would have tested as characteristically hazardous, however, adding to the pile with subsequent lifts of cleaner soils may have served to dilute the contaminant concentration. Future activities should include a plan to avoid this possibility.

If you have any questions on this matter, please contact me at (518) 457-0549.

Sincerely,

Jonathan Greco
Project Manager
Division of Environmental
Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swerdoski, Reg. 6, Watertown
N. Carrier (Reg. 6, Utica)
L. Hancsak
S. Dimeo

bc: S. Ervolina
M. Chen

JG.

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

RECEIVED
01 AUG 2000

MEMORANDUM FOR Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

Douglas Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

FROM: AFBCA/DA – Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Finding of Suitability to Transfer – Building 300 Land

1. Reference our 28 Apr 2000 memorandum concerning review of the draft Finding of Suitability to Transfer (FOST) for the Building 300 Land. Concurrence letters have been received from the United States Environmental Protection Agency (USEPA) and the New York State Department of Environmental Conservation (NYSDEC) and are included in the final FOST.

2. A copy of the final FOST is attached for your information. Final negotiations are underway for sale of the land to the Upstate Federal Credit Union.

Michael F. McDermott
BRAC Environmental Coordinator

Attachment:
Final FOST, Building 300 Land

cc: AFBCA/DA (Ms. Lynn Hancsak)

AFBCA/DA - GRIFFISS

BUILDING 300 LAND

FINAL

FINDING OF SUITABILITY TO TRANSFER (FOST)

AUGUST 2000

FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
GRIFFISS AIR FORCE BASE (AFB), NEW YORK

1. PURPOSE

1.1 The purpose of this Finding of Suitability to Transfer (FOST) is to document environmentally-related findings and the suitability to transfer for the proposed sale of property at Griffiss Air Force Base (AFB), NY, to the Upstate Federal Credit Union. The property is described in Section 2 below.

1.2 The property will be transferred to the Upstate Federal Credit Union by negotiated sale.

1.3 This FOST is a result of a thorough analysis of information contained in the following documents: (1) Final Environmental Impact Statement (FEIS) for the Disposal and Reuse of Griffiss Air Force Base, New York, November 1995; (2) Basewide Environmental Baseline Survey (EBS) for Griffiss Air Force Base, New York, September 1994; (3) Basewide Environmental Baseline Survey Update, March 1997; (4) Partial Record of Decision (PROD), June 1996; (5) Draft Final Remedial Investigations (RI) Report dated December 1996; (6) Griffiss Area of Interest (AOI) Reports dated November 1996 (Group I), May 1997 (Group II and III) and July 1998 (Expanded Site Investigation); (7) Unexploded Ordnance Archives Search Report - Recommendations and Findings, dated November 1997; (8) Final BRAC Removal Actions (UXO) Report, dated October 30, 1998; (9) Phase II Archaeological Investigations of 20 Sites at Griffiss AFB, dated April 1997; and (10) a Visual Site Inspection (VSI) conducted in August 2000. A Visual Site Inspection (VSI) form describing information gathered during the VSI is included in Exhibit 1 of this document.

2. PROPERTY DESCRIPTION

The property to be sold is shown on the map (Exhibit 2) and consists of a total of approximately 1-acre. Building 300 is not included in the sale, as the buyer presently owns the building.

3. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE

The environmental impacts of this proposal have been adequately analyzed and disclosed in compliance with NEPA. These impacts are analyzed in the FEIS and are Categorically Excluded from further analysis as described in CATEX #A2.3.11 and documented on the attached United States Air Force (USAF) Form 813 (Exhibit 3). Based on this analysis, the environmental impacts of proceeding with the sale are not sufficiently adverse to human health and the environment to out-weigh the other advantages to the community and the public interest of this sale and to prevent the sale of the property.

4. ENVIRONMENTAL CONDITION OF THE PROPERTY

Based on a review of the Basewide EBS and a VSI of the property, the property is considered Department of Defense (DoD) Environmental Condition Category 1. Category 1 areas are those

areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

The United States Environmental Protection Agency (USEPA) has concurred that no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

5. DEED RESTRICTIONS AND NOTIFICATIONS

The environmental documents listed in Section 1.3 were evaluated to identify environmental factors which may warrant constraints on certain activities in order to ensure that the intended use as commercial is consistent with the protection of human health and the environment. Such constraints are generally embodied as restrictions in the deed or as specific notifications in the deed or other documents supporting the transaction. The factors that require either deed restrictions or specific notifications are identified in Exhibit 4 and are discussed below. The remaining factors listed in Exhibit 4 pose no threat to human health or the environment and, therefore, require neither deed restriction nor notifications to the buyer.

5.1 Hazardous Substances Notification

A hazardous substance notification need not be given because no hazardous substances in quantities exceeding 1,000 kilograms or the hazardous substance's reportable quantity found at 40 CFR Part 302.4 (whichever is greater) were stored for one (1) year or more, or were known to have been released, treated, or disposed of on the property. In addition, no evidence of storage, release, or disposal of any hazardous substances was identified during the VSI.

5.2 Installation Restoration Program (IRP), Area of Concern (AOC), and Area of Interest (AOI) Sites

The USAF, USEPA, and New York State Department of Environmental Conservation (NYSDEC) entered into a Federal Facility Agreement (FFA) effective August 21, 1990, under Section 120 of CERCLA.

There are no IRP, AOC, or AOI sites located within the property.

The transaction documents will restrict property use to commercial use. The transaction documents will prohibit the extraction, utilization, or consumption of any water from the aquifer below the surface of the ground within the property boundary unless the groundwater has been tested and found to meet all applicable standards and unless such owner or occupant obtains the prior written approval from the New York State Department of Health. The transaction documents also will provide that the aquifer should not be managed in any way that could spread or exacerbate environmental contamination or open exposure pathways to humans or the environment. The transaction documents will include provisions that the buyer and its successors and assignees will be required to comply with all applicable Federal and State laws and regulations with regard to activities affecting the groundwater in the aquifer.

The buyer is entitled to the statutory indemnification for closing bases pursuant to Section 330 of the National Defense Authorization Act for Fiscal Year 1993, Public Law 102-484, as amended by Section 1002 of the National Defense Authorization Act for Fiscal Year 1994, Public Law 103-160. Provisions will be included in the Deed to allow the Air Force, NYSDEC and USEPA and their representatives access to the property in any case in which any such response or corrective action is found to be necessary, or where such access is necessary to carry out a response or corrective action on adjoining property.

5.3 Sanitary Sewer Systems (Wastewater)

Building 300 is connected to a sanitary sewer. The transaction documents will require the buyer to submit an application for discharging to the sanitary sewer and to meet all applicable wastewater discharge permit standards.

5.4 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property to be transferred has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven (11) munitions related sites are identified to be present within the property. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property to be sold.

All ground disturbing activities performed by the buyer shall be performed in a manner such that the identification of ordnance related material may occur. Upon discovery of any suspected ordnance-related material the appropriate authorities shall be notified.

6. PUBLIC COMMENTS

On April 20, 2000, public notice of the proposed sale of the property to the Upstate Federal Credit Union was provided by publication in one (1) local newspaper (Exhibit 5). No public comments were received within thirty (30) days of the public notice.

7. REGULATOR COORDINATION

The NYSDEC and the USEPA were notified on August 6, 1997 of the initiation of the FOST. Consolidated draft documents were provided on April 28, 2000 for formal review and comment. Concurrence letters (Exhibit 6) were received on June 5, 2000 from the USEPA and on May 5,

2000 from the NYSDEC. There were no regulatory comments. A final FOST was issued on August 1, 2000.

8. UNRESOLVED REGULATOR COMMENTS

The USEPA and NYSDEC provided concurrence letters on the FOST. There were no regulatory comments.

9. FINDING OF SUITABILITY TO TRANSFER

The proposal to transfer this property has been adequately assessed and evaluated for (a) the presence of hazardous substances and contamination on the property; (b) environmental impacts anticipated from the intended use of the property; and (c) the adequacy of use restrictions and notifications to ensure that the intended use is consistent with protection of human health and the environment. The anticipated future use of this property does not present a current or future risk to human health or the environment, subject to inclusion and compliance with the appropriate restrictions on use and disclosures as addressed above. The property, therefore, is suitable to transfer.

_____
Date

ALBERT F. LOWAS, JR.
Director
Air Force Base Conversion Agency

Exhibits:
1. Visual Site Inspection Form
2. Property Map
3. Air Force Standard Form 813
4. Environmental Factors Considered
5. Public Notice
6. Regulator Concurrence letters

Exhibit 1

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** August 2000
Facility #: Land at Building 300	**Construction Year:** 1965	**Acres:** 1 (approx.)
Inspected By: Cathy Jerrard		
Facilities Current Function: Credit Union		
Prior Facility Use: Credit Union		
Point of Contact:		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: None SAP: None WPP: None Other: None		
Exterior Inspection: Very good condition.		
Interior Inspection: Not required, buyer currently owns building.		
Comments:		

Exhibit 2

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
PROPERTY MAP

Exhibit 3

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
AF Form 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol
RCS:

INSTRUCTIONS: *Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I - PROPONENT INFORMATION

1. TO *(Environmental Planning Function)*	2. FROM *(Proponent organization and functional address symbol)*	2a. TELEPHONE NO.
AFBCA/DA - Griffiss, Environmental	AFBCA/DA - Griffiss, Real Estate	315-330-4273

3. TITLE OF PROPOSED ACTION
Sell the land associated with Building 300 to the Upstate Federal Credit Union.

4. PURPOSE AND NEED FOR ACTION *(Identify decision to be made and need date)*

Upstate Federal Credit Union requests a purchase of the land associated with Building 300.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES *(DDPAA) (Provide sufficient details for evaluation of the total action.)*

Continue operation of the Credit Union. Building 300 is currently owned by the buyer.

6. PROPONENT APPROVAL *(Name and Grade)*	6a. SIGNATURE	6b. DATE
Anna L. Lemaire, GS - 13	Anna L. Lemaire	4/28/00

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. *(Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U= unknown effect)*	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*		X		
9. WATER RESOURCES *(Quality, quantity, source, etc.)*		X		
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity-distance, etc.)*		X		
11. HAZARDOUS MATERIALS/WASTE *(Use/storage/generation, solid waste, etc.)*		X		
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, flora, fauna, etc.)*		X		
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)*		X		
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*		X		
16. OTHER *(Potential impacts not addressed above.)*		X		

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17. [X] PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # A2.3.11 ; OR
[ ] PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS
These impacts are categorically excluded from further analysis based on CATEX #A2.3.11 which encompasses actions similar to other actions which have been determined to have an insignificant impact in a similar setting as established in the Final Environmental Impact Statement (FEIS) for Griffiss AFB, dated Nov 95. Based on this analysis, the environmental impacts of the deed are not sufficiently adverse to human health and the environment to outweigh the other advantages to the community and the public interest, or to prevent the sale of this property.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION *(Name and Grade)*	19a. SIGNATURE	19b. DATE
Michael F. McDermott, GS - 13	M F McDermott	27 Apr 00

Exhibit 4

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND

Transfer Restriction or Notification Required?		*Environmental Factors Considered*
No	**Yes**	
		Environmental Restoration, Hazardous Substances, Petroleum
X		Hazardous Substances (Notification)
X		Installation Restoration Program (IRP) and Areas of Concern
X		Medical/Biohazardous Wastes
X		Oil/Water Separators (OWSs)
	X	Unexploded Ordnance
X		Radioactive & Mixed Wastes
X		Storage Tanks (USTs/ASTs)
		Disclosure Factors/Resources:
X		Asbestos
X		Drinking Water Quality
X		Indoor Air Quality
X		Lead-Based Paint (High-Priority Facilities)
X		Lead-Based Paint (Other Facilities)
X		PCBs
X		Radon
		Other Factors:
X		Air Conformity/Air Permits
X		Energy (Utilities)
X		Flood plains
X		Hazardous Waste Management (By Lessee)
X		Historic Property (Archeological/Native American, Palentological)
X		OSHA (Occupational Safety & Health Administration)
X		Outdoor Air Quality
X		Prime/Unique Farmlands:
	X	Sanitary Sewer Systems (Wastewater)
X		Sensitive Habitat
X		Septic Tanks (Wastewater)
X		Solid Waste (Disposal of demolition materials)
X		Threatened and Endangered Species
X		Transportation
X		Wetlands

Exhibit 5

Griffiss AFB, NY
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
PUBLIC NOTICE

STATE OF NEW YORK, } ss:
COUNTY OF ONEIDA.

Joseph M. Entelisano

being sworn, says he is, and during the time hereinafter mentioned, was Advertising Director of the DAILY SENTINEL, a newspaper printed and published in the County of Oneida, aforesaid; and that the annexed printed Notice was inserted and published in said Newspaper once / commencing

on the 20 day of April , 200 0

to wit: April 20

April 20 , 200 0

Joseph M. Entelisano

Sworn to before me this

20 day of April , 200 0

Linda Weaver
Notary Public in the State of New York
Appointed in Oneida County
My Commission Expires September 30, 2001

Linda Weaver
Notary Public

PUBLIC NOTICE
NOTICE OF INTENT TO SIGN FINDING OF SUITABILITY TO TRANSFER

The United States Air Force Base Conversion Agency (AFBCA) is giving Notice of Intent to Sign a Finding of Suitability to Transfer (FOST) regarding the following parcel of property located at the former Griffiss Air Force Base, Rome, New York:

Approximately one (1) acre of land beneath Building No. 300, now known as the Upstate Federal Credit Union

The FOST is based on an extensive review of the environmental condition of the property. This review was done in consultation with federal and state environmental regulatory agencies. After the completion of an Environmental Impact Statement and pursuant to the Partial Record of Decision on the Reuse and Disposal of Griffiss Air Force Base dated June 1996, the property will be sold through a negotiated sale to Upstate Federal Credit Union.

The property became available as a result of Public Law 101-510, Defense Base Closure and Realignment Act of 1990, and the subsequent realignment of Griffiss Air Force Base.

A copy of the FOST including regulatory comments, and responses and supporting environmental documentation including the Supplemental Environmental Baseline Survey (SEBS) will be added to the Administrative Record.

Individuals interested in reviewing the information should contact:

ANNA LEMAIRE
SITE MANAGER
AIR FORCE BASE CONVERSION AGENCY
153 BROOKS ROAD
ROME, NEW YORK 13441-4105
(315) 330-2275

Exhibit 6

Griffiss AFB, NY
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
REGULATOR CONCURENCE LETTERS

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518)
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

May 5, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Finding of Suitability to Transfer (FOST); Bldg. 300
Griffiss Air Force Base, Site ID No. 633006

I have reviewed the referenced document and have no comments.

If you have any questions on this matter, please contact me at (518) 457-0549.

Sincerely,

Jonathan Greco

Jonathan Greco
Project Manager
Division of Environmental
Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swedowski, Reg. 6, Watertown
L. Hansak
S. Dimeo

bc: S. Ervolina
M. Chen

RECEIVED
9 MAY 2000

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
Environmental Section
Griffiss Air Force Base, NY 13441-4503

Re: Draft Finding of Suitability to Transfer (FOST)
Building 300 Land, Griffiss AFB

Dear Mr. McDermott:

EPA has reviewed the Draft Finding of Suitability to Transfer (FOST), Building 300 Land, dated April 28, 2000 and find the FOST to be in accordance with DoD FOST Guidance. Please note, our finding is based solely on the information provided and implies no independent investigation or verification of the information contained therein.

The FOST indicates that Building 300 is currently owed by the Upstate Federal Credit Union. However, the property has ben owned by the Air Force. With this transfer the land approximately 1-acre will be transferred to the Upstate Federal Credit Union for continued use of the property as a banking facility.

Our review of the environmental condition of the property indicates that the environmental factors pose no concern with this intended future use. However, should the use change from that outlined in your FOST, please note additional review may be necessary.

Should you have any questions, please contact Douglas Pocze, of my staff, at (212) 637-4432.

Sincerely,

Robert Wing, Chief
Federal Facilities Section

cc: M. Chen, NYSDEC



August 2000

SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

FOR BUILDING 300 LAND

Griffiss AFB, NY

CHAPTER 1 - PURPOSE OF THE SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

1.1 Introduction. This Supplemental Environmental Baseline Survey (SEBS) has been prepared to document environmental conditions of the Building 300 land resulting from the storage, release, or disposal of hazardous substances and/or petroleum products and other environmental conditions over the area's history in order to establish a baseline for use by the United States Air Force (USAF) in making decisions concerning real property transactions. Changes in the environmental condition of the property since publication of the Griffiss Air Force Base (AFB) Basewide EBS are also documented in this SEBS.

1.2 Description:

The property to be sold consists of a total of approximately 1-acre. Building 300 is not included in the sale, as the building is owned by the Upstate Federal Credit Union.

CHAPTER 2- SURVEY METHODOLOGY

2.1 Approach and Rationale. The data used in preparing this SEBS were obtained from the Griffiss AFB Basewide EBS dated September 1994 and updated in March 1997. The EBS was based on record searches, interviews, and visual site inspections (VSIs). The data and information contained in the EBS were prepared in accordance with Department of Defense (DoD) policies and guidance, as they pertain to the procedures for conducting an EBS. A confirmatory VSI was conducted and additional data was collected in August 2000 to verify the condition of the property.

The Building 300 land is now considered Department of Defense Environmental Condition Category 1. Category 1 areas are those areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

The United States Environmental Protection Agency (USEPA) has concurred that no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

2.1.1 Description of Documents Reviewed. A list of documentation reviewed is provided in the Griffiss AFB Basewide EBS. The primary types of studies or investigations included Installation Restoration Program (IRP) studies, USAF Base Realignment and Closure (BRAC)

Cleanup Plan (April 1994), the 1993 USAF Real Property Inventory, underground storage tank/above ground storage tank (UST/AST) investigations, National Environmental Policy Act documentation, the 1993 Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings Preliminary Report, and Federal, State, and local documentation.

2.1.2 Inspection of Properties Conducted. A VSI of the property was conducted during preparation of the Basewide EBS. A confirmatory VSI was conducted in August 2000 to ensure that no change in property condition had occurred since the initial Basewide EBS was published. The purpose of the VSI was to identify any stained soils, stressed vegetation, leachate seepages, unusual odors, etc., which might indicate environmental concern.

2.1.3 Personnel Interviews. Base personnel were contacted and interviewed, when possible, during the initial records search and VSI trips conducted for the Basewide EBS. Personnel interviewed during the Griffiss AFB Basewide EBS included representatives from civil engineering, real property, industrial engineering, and operations. The USAF Remedial Project Manager (RPM), who is responsible for initiating and managing projects that are necessary to evaluate and cleanup sites that have been contaminated with hazardous substances and waste from past base activities, was also interviewed.

CHAPTER 3 - FINDINGS FOR BUILDING 300 LAND

3.1 Environmental Setting. Griffiss AFB occupies approximately 3,540 acres in central Oneida County in upstate New York, in the City of Rome. A description of the area's climate, topography, hydrology, geology and utilities are contained in Section 3.2 of the Griffiss AFB Basewide EBS.

3.2 Property Categorization Resources

3.2.1 Environmental Factors. There are/was no record or evidence of medical/biohazardous waste, hazardous substance/material storage, oil/water separators, storage tanks, pesticides, and radioactive waste releases on the subject property. No PCB-containing equipment is located on the property. No threatened or endangered species, sensitive habitats, cultural resources, prime or unique farmland, wetland or floodplain concerns are associated with the property. There are no IRP, Area of Concern (AOC), or Area of Interest (AOI) Sites on the property.

3.2.2 Sanitary Sewer Systems (Wastewater)

Building 300 is connected to a sanitary sewer.

3.2.3 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property to be transferred has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the

USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven (11) munitions related sites are identified to be present within the property. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property to be transferred.

CHAPTER 4-FINDINGS FOR ADJACENT PROPERTIES

4.1 Adjacent Properties. Appendix A, Table A-1 in the Basewide EBS, identifies the properties that are adjacent to the subject property.

There are no IRP sites, AOCs, or AOIs located on adjacent property.

CHAPTER 5-PROPERTY TRANSFER CATEGORY

5.1 Conclusions. The Building 300 land is now considered Department of Defense Environmental Condition Category 1. Category 1 areas are those areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

The United States Environmental Protection Agency (USEPA) has concurred that no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

CHAPTER 6-CERTIFICATION

I certify that the property conditions stated in this survey are based on a thorough review of available records, visual inspections, and sampling and analysis as noted, and are true and correct to the best of my knowledge and belief.

MICHAEL F. McDERMOTT
BRAC Environmental Coordinator
AFBCA/DA - Griffiss

8/01/00
Date

AFBCA/DA - GRIFFISS

FINDING OF SUITABILITY TO LEASE

PARCEL F12A

DRAFT FINAL

August 2000

FINDING OF SUITABILITY TO LEASE (FOSL)
PARCEL F12A
GRIFFISS AIR FORCE BASE (AFB), NEW YORK

1. PURPOSE

1.1 The purpose of this Finding of Suitability to Lease (FOSL) is to document environmentally-related findings and the suitability to lease property at Griffiss AFB, New York, to the Griffiss Local Development Corporation (GLDC). The property is described in Section 2 below. The property will be leased to the GLDC on a long-term basis for the term of forty years. The GLDC will sublease the property to be used for industrial/commercial/non-residential use. This property will be used in conjunction with the property being transferred under the Parcel F4A Finding of Suitability to Transfer (FOST) documents.

1.2 This FOSL is a result of an analysis of information contained in the following documents: (1) Final Environmental Impact Statement (FEIS) for the Disposal and Reuse of Griffiss Air Force Base, New York, November 1995; (2) Final Supplemental Environmental Impact Statement (FSEIS) for the Disposal and Reuse of Airfield at Griffiss Air Force Base, New York, September 1999; (3) Basewide Environmental Baseline Survey (EBS) for Griffiss Air Force Base, New York, September 1994; (4) Basewide Environmental Baseline Survey Update, March 1997; (5) Draft Final Remedial Investigations (RI) Report dated December 1996; (6) Griffiss Area of Interest (AOI) Reports dated November 1996 (Group 1), May 1997 (Group 2 and 3) and July 1998 (Expanded Site Investigation); (7) Unexploded Ordnance (UXO) Archives Search Report - Recommendations and Findings, dated November 1997; (8) Final BRAC Removal Actions (UXO) Report, dated October 30, 1998; (9) 1993 Inventory of Rare Plant Species and Significant Natural Communities at Griffiss AFB, dated January 25, 1994; (10) Phase II Archaeological Investigations of 20 Sites at Griffiss AFB, dated April 1997; and (11) Visual Site Inspections (VSI) conducted in January and July 2000. The VSI forms describing information gathered during the VSIs are included as Attachment 1 to this document.

2. PROPERTY DESCRIPTION

The property to be leased is shown on the map (Attachment 2) and consists of a total of approximately 34.97 acres. The property includes the concrete paved area to the north of the Alert Apron, the grassed area located to the southeast of the Alert Apron, and the following facilities:

Facility Number	Former Air Force Use	Square Footage
764	Crew Readiness Facility	3,269
793	Crew Readiness Facility	18,318
811	Master Surveillance and Control Facility	35
6389D	Industrial Waste Treatment & Disposal Facility	N/A

3. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE

The environmental impacts of this proposal have been adequately analyzed and disclosed in compliance with NEPA. These impacts are analyzed in the FEIS for the Disposal and Reuse of Griffiss Air Force Base and the FSEIS for the Disposal and Reuse of Airfield at Griffiss Air Force Base, New York and are Categorically Excluded from further analysis as described in CATEX #A2.3.11 and documented on the attached USAF Form 813 (Attachment 3). Based on this analysis, the environmental impacts of proceeding with the Lease are not sufficiently adverse to human health and the environment to out-weigh the other advantages to the community and the public interest of this Lease and to prevent the leasing of the property.

4. ENVIRONMENTAL CONDITION OF THE PROPERTY

Based on a review of the Basewide EBS and VSIs of the property, the buildings, structures, and surrounding areas are considered Department of Defense Environmental Condition Category 2. Category 2 areas are those areas where only release or disposal of petroleum products has occurred.

The United States Environmental Protection Agency (USEPA) concurs that only the release or disposal of petroleum products has occurred.

5. LEASE RESTRICTIONS AND NOTIFICATIONS

The environmental documents listed in Section 1.2 were evaluated to identify environmental factors which require specific restrictions under the Lease, to preclude threat to human health or the environment, or require notifications to the Lessee. The factors that require either Lease restrictions or notifications are identified in Attachment 4 and are discussed below. The remaining factors listed in Attachment 4 pose no threat to human health or the environment and, therefore, require neither lease restrictions nor notifications to the lessee.

5.1 Installation Restoration Program (IRP) Sites, Areas of Concern (AOCs) Sites and Areas of Interest (AOIs) Sites

The United States Air Force (USAF), USEPA, and New York State Department of Environmental Conservation (NYSDEC) entered into a Federal Facility Agreement (FFA) effective August 21, 1990, under Section 120 of CERCLA.

5.1.1 Subject Property

There is one (1) AOC site located within the subject property.

AOC/IRP Site ID	Site Name
SD-52	On Base Groundwater

At **SD-52, On Base Groundwater Contamination**, the groundwater on the property was investigated and analytical results are presented in the Draft Final RI report dated

December 1996. The draft RI report indicated that no release, disposal, or migration of CERCLA hazardous substances that would affect the groundwater on the property has occurred.

All AOIs on the subject property have been classified as Covered Under Other Programs or No Further Study.

The USAF has evaluated the risks associated with these sites and has determined that this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

The Lessee will be advised through the Lease documents of the locations of past, possible, and future remedial actions/investigations. The Lessee will be required under the Lease to comply with the provisions of any health and safety plans in effect under the IRP. The health and safety plans will incorporate Occupational Safety and Health Administration (OSHA) requirements. The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity on the property without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF and regulatory agencies unrestricted access to the property to conduct necessary investigation and/or cleanup activities.

5.1.2 Adjacent Property

There are four (4) Area Of Concern (AOC) or Installation Restoration Program (IRP) sites located on adjacent property that may impact the property to be leased.

AOC/IRP Site ID	Site Name
SD-32	Six Mile Creek and WSA Lagoon
SD-41	Bldg 782, Nose Docks 1 & 2
SS-46	Glycol Use/Storage Areas
ST-54	Building 781-Pumphouse 1

SD-32, Six Mile Creek and WSA Lagoon, is an AOC located north of the property. The USAF recommended in its draft final RI report dated December 1996 that a feasibility study be performed to evaluate potential remedial actions required to mitigate chemicals of concern in the surface water and sediments. The draft FS was issued in January 1999. Additional sampling of the off base portion of the creek was performed in the fall of 1999. A draft FS addendum report was issued to the regulators on March 20, 2000 and comments on the report were received from the USEPA on June 1, 2000 and from the NYSDEC on June 19,2000.

SD-41, Building 782 (Nose Docks 1 & 2), is an AOC that is located adjacent to Buildings 782 and 783, between Aprons 1 and 2. The site consists of two areas of contaminated soil, the first associated with releases from an oil/water separator (OWS) located near the northern corner of Building 782, and the second in the vicinity of a soil fire that occurred during trenching operations between the Nose Docks and Apron 1. Stained soil has been excavated in the past to

a depth of 2 feet; however, contamination below this level is known to exist. The draft final RI report issued in December 1996 recommended removal of the OWS and contaminated soils, investigation of the source of contamination in the vicinity of the trench fire along the southern edge of Apron 1, and the evaluation of remedial alternatives for the remediation of contaminated subsurface soils and groundwater in the area. The RI report also recommended delineation of petroleum hydrocarbon contamination in the groundwater at the site. Additional investigations are presently being performed under project JREZ97-6003, Remedial Action for Former Underground Storage Tanks (USTs) sites.

SS-46, Glycol Use and Storage Area, is an AOC that was recommended by the USAF for no further action in the draft final RI report dated December 1996. This AOC is primarily associated with glycol spills in the vicinity of Apron 2, northwest of the property. Regulator concurrence has not been obtained.

ST-54, Building 781-Pumphouse 1 is an IRP site that is located west of the property. Project JREZ 93-0054, Site Assessment and Implementation of Corrective Measures Pursuant to Site Closure at Pumphouse 1, 2, 3, 4, is currently active to address the free product and petroleum contamination. NYSDEC Spill Number 9202658 is associated with this site.

The USAF has evaluated the risks associated with these sites and has determined that this property can be used pursuant to the proposed lease with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

5.2 Petroleum Storage and Distribution Facilities

5.2.1 Underground and Aboveground Storage Tanks (USTs and ASTs)

There are two (2) UST sites and three (3) former UST sites on the property. There are no AST sites associated with this property. Table 5.2.1 lists the storage tank numbers, locations, identified releases, and status of the tanks.

Table 5.2.1
Storage Tanks

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-764-1 Fuel Oil	550	Northwest of B/764	None	Removed 1991 900128	1991
UST-764-2 Fuel Oil	550	Northwest of B/764	None	In Service	N/A
UST-793-1 Fuel Oil	15,000	Southeast of B/793	None	Removed 1991 900128	1991
UST-793-2 Fuel Oil	2,000	Northwest of B/793	None	Removed 1991 900128	1991

UST-793-3 Fuel Oil	5,000	Northwest of B/793	None	Temporarily Out Of Service	N/A

* All tanks listed as closed on the above table have been removed from the Griffiss AFB Major Oil Storage Facility license.

There is one UST site (UST-789-2) located on adjacent property that has impacted the property. A petroleum release (open spill number #9810713) consisting of jet fuel exists at this site. Petroleum contaminated groundwater has migrated onto the property and will be remediated under project number JREZ00-7006 during 2001.

The USAF has evaluated the risks associated with these sites and has determined that since the remaining petroleum contamination is subsurface, this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental compliance restoration process.

The lease documents will include a restriction for UST-789-2 (restricted area north of Building 789 is depicted in Attachment 2) that does not allow access to subsurface soils and groundwater at or below the groundwater interface at this site until the NYSDEC STARS Memo cleanup requirements are met, and cleanup actions are executed by the Air Force to the satisfaction of the NYSDEC Spills Program personnel. Construction activities in the groundwater at this site are also restricted. The Lessee will also be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the other UST sites listed above without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF, NYSDEC and their representatives unrestricted access to the sites to conduct investigations, cleanup or removal activities.

5.2.2 Petroleum, Oil and Lubricant Systems (POL)

There is one underground fuel line site on the property. Table 5.2.2 lists the POL number, location, identified releases, and status of the system.

Table 5.2.2
POL System

POL Number	Location	Releases/ Spill Number/Status	POL Status/Removal Project Number	POL Closure Date
POL-781-2	Runs north and south just east of Apron 2 and supplied the refueling pits for Baker Row, Apron 2	Spill # 9608239 closed 10/2/96, Spill # 9713631 associated with Apron 2/ OPEN	Deactivated 1993. Cleaned & sampled under 95-0038 in 1996, further investigations under 97-6003	1996

The USAF has evaluated the risks associated with this site and has determined that this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental compliance restoration process.

The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the POL site listed above without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF, NYSDEC, and their representatives unrestricted access to the site to conduct investigations, cleanup or removal activities.

5.2.3 Oil/Water Separators (OWSs)

There is one (1) OWS site located on the property. Table 5.2.3 lists the OWS number, location and status of the OWS.

Table 5.2.3
Oil/Water Separators

OWS Number	Location	Releases/ Spill Number /Status	OWS Status	OWS Closure Date
OWS-6389-4	Northeast of Alert Apron / Taxiway 1	None	Collects runoff from Alert Apron / Taxiway 1 Area	Active

The USAF has evaluated the risks associated with this site and has determined that this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental compliance restoration process.

The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the OWS site listed above without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF, NYSDEC, and their representatives unrestricted access to the site to conduct investigations, cleanup or removal activities.

5.3 Asbestos Containing Material (ACM)

ACM was not identified in Building 811. ACM was identified in Buildings 764 and 793. The asbestos observed during the VSIs (Attachment 1) generally appeared in good condition as noted in the VSI reports. The Lessee will be advised through lease documents of the presence, location, and condition of the ACM. The Lease will require the Lessee to monitor the condition of the existing ACM and comply with all applicable laws and regulations relating to asbestos. The Lease will require the Lessee to remove or remediate any ACM that during the period of the lease becomes damaged or deteriorated. The Lease will also require the Lessee to submit an

appropriate asbestos disposal plan to the Air Force for approval prior to conducting any remediation activities.

5.4 Lead-Based Paint (LBP)

LBP is assumed not to be present in Building 811 since it was constructed after 1978. LBP may be present in Buildings 764 and 793 since they were constructed prior to 1978. The Air Force has classified these facilities as facilities with a probability of having a LBP hazard because they were constructed prior to 1978 when the maximum allowable content of lead in paint was reduced. The condition of possible LBP is noted in the VSI for each building (Attachment 1). The Lessee will restrict construction, alteration, or modification (to include paint stripping or sanding) without prior testing of the paint and notification of and approval by the USAF prior to the initiation of the activity. The Lessee will be responsible for managing all LBP (including rubblized material generated during demolition which contains LBP) and potential LBP in compliance with NYSDEC Solid Waste Regulations and all other applicable laws and regulations. The Lessee will be responsible through the Lease for ensuring that any LBP is maintained in good condition and for managing all LBP and potential LBP in compliance with all applicable laws and regulations.

5.5 Sanitary Sewer Systems (Wastewater)

Building 793 is connected to a sanitary sewer. The Lease will require the Lessee to submit appropriate applications for discharging any generated sanitary waste into the sanitary sewer system prior to the beginning of the Lease and to meet all applicable wastewater discharge permit standards.

There is one grease trap located on the property, GT-793. The grease trap is operational and serves sinks and a dishwasher in the kitchen area. The grease trap was evaluated under project JREZ95-7090 and recommended for no further study. This site has received regulator concurrence.

There is one (1) septic tank present on the property. SPT-764 (tank and drain field) is located northwest of Building 764 and is connected to the sanitary system in Building 764. This system is operational.

5.6 Solid Waste Management (by Lessee)

The Lessee is anticipated to generate solid waste during the demolition and/or construction of various buildings and will be responsible for managing all solid waste in accordance with NYSDEC Solid Waste Regulations and all other applicable laws and regulations.

5.7 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property to be leased has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the

USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven munitions related sites are identified to be present within the property to be leased. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property to be leased.

All ground disturbing activities performed by the Lessee shall be performed in a manner such that the identification of ordnance related material might occur. Upon discovery of any suspected ordnance related material the appropriate authorities shall be notified.

5.8 Historic Property

The draft Historic Structures Survey dated October 1995 was issued for review and revised on July 14, 1998. Comments on the revised draft were received from the NY State Office of Parks, Recreation and Historic Preservation on September 9, 1998. Based on the comments received, Buildings 764, 793, and 811 have been released from consideration.

5.9 Regulatory Compliance/Permits/Reports (by Lessee)

In addition to the environmental requirements stated above, the Lessee will be required through the Lease to comply with all other applicable laws and regulations and to obtain all environmental permits and approvals that are applicable to the operations conducted on the property. The Lessee will also be required through the Lease to provide the following documentation to the Air Force:

a. Copy of the Notification Letter to the NYSDEC Regulatory Affairs, Region 6 Office advising of operation start-up.
b. Copy of the NYSDEC Regulatory Affairs response.
c. Copy of all permit applications followed by the final permits.

6. REGULATOR COORDINATION

The NYSDEC and the USEPA were notified of the initiation of the FOSL and Supplemental Environmental Baseline Survey (SEBS) on January 5, 2000. Consolidated draft documents were provided on January 25, 2000, for formal review and comment. Regulator comments (Exhibit 6) were received on March 30, 2000 from the USEPA. Comments were not received from the NYSDEC. All comments were incorporated into or addressed in the document. A draft final FOSL was provided for final coordination on August 24, 2000.

7. UNRESOLVED REGULATOR COMMENTS

All comments provided by the regulators were addressed and/or incorporated in this document. There were no unresolved comments.

8. FINDING OF SUITABILITY TO LEASE

Based on the foregoing information and analysis, I find that this property is suitable to Lease and that environmental conditions do not present an unacceptable risk to human health or the environment, subject to the lease containing appropriate restrictions on the activities of future recipients as addressed above.

Date

ALBERT F. LOWAS, JR.
Director
Air Force Base Conversion Agency

Attachments:
1. Visual Site Inspection Forms
2. Property Map
3. Air Force Standard Form 813
4. Environmental Factors Considered
5. Regulator Comments
6. Air Force Response to Comments

Attachment 1

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Parcel F12A
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** July 2000
Facility #: Building 764	**Construction Year:** 1963	**Sq. Ft.:** 3,269
Inspected By: John Decharo/Michael Wojnas, AFBCA/DA - GRIFFISS		
Facilities Current Function: Vacant		
Prior Facility Use: Crew Readiness Facility/ANG Operations Office		
Point of Contact: AFBCA/DA - GRIFFISS		
Known Features: Underground Storage Tanks: UST-764-1 (removed), UST-764-2 (in service) Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: SPT-764 Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: No SAP: No WPP: No Other: None		
Exterior Inspection: Good condition. Nothing unusual.		
Interior Inspection: Very good condition. Building is heated. Nothing unusual.		
Comments: No peeling paint encountered during VSI.		

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Parcel F12A
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** July 2000
Facility #: Building 793	**Construction Year:** 1959	**Sq. Ft.:** 18,318
Inspected By: John Decharo/Michael Wojnas, AFBCA/DA - GRIFFISS		
Facilities Current Function: Vacant		
Prior Facility Use: Crew Readiness Facility		
Point of Contact: AFBCA/DA - GRIFFISS		
Known Features: Underground Storage Tanks: UST-793-1 & UST-793-2(removed), UST-793-3 (temporarily out of service) Aboveground Storage Tanks: None Oil/Water Separators: Septic Tank Systems: None Drywells: None Other Features: GT-793		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: No SAP: No WPP: No Other: None		
Exterior Inspection: Good condition. Nothing unusual.		
Interior Inspection: Some mildew in basement areas. Damaged ceiling throughout building. Ceiling in gym (basement) falling. Mechanical room in good condition. Insulation in good condition.		
Comments: No peeling paint encountered during VSI.		

Attachment 1

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Parcel F12A
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** July 2000
Facility #: Building 811	**Construction Year:** 1979	**Sq. Ft.:** 35
Inspected By: John Decharo/Michael Wojnas, AFBCA/DA - GRIFFISS		
Facilities Current Function: Vacant		
Prior Facility Use: Master Surveilance and Control Facility		
Point of Contact: AFBCA/DA - GRIFFISS		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: No SAP: No WPP: No Other: None		
Exterior Inspection: Fair condition. Nothing unusual.		
Interior Inspection: Fair condition. Nothing unusual.		
Comments: None		

Attachment 1

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Parcel F12A
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** July 2000
Facility #: Facility 6389D	**Construction Year:** 1978	**Sq. Ft.:** N/A
Inspected By: John Decharo/Michael Wojnas, AFBCA/DA - GRIFFISS		
Facilities Current Function: Industrial Waste Treatment & Disposal Facility		
Prior Facility Use: Industrial Waste Treatment & Disposal Facility		
Point of Contact: AFBCA/DA - GRIFFISS		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: OWS-6389-4 Septic Tank Systems: None Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: No SAP: No WPP: No Other: None		
Exterior Inspection: Good condition. Nothing unusual.		
Interior Inspection: N/A		
Comments: None		

Attachment 2

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Parcel F12A
PROPERTY MAP

(SEE ACCOMPANYING PARCEL F4A PROPERTY MAP)

Attachment 3

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Parcel F12A
AF FORM 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol
RCS:

INSTRUCTIONS: *Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I - PROPONENT INFORMATION

1. TO *(Environmental Planning Function)*	2. FROM *(Proponent organization and functional address symbol)*	2a. TELEPHONE NO.
AFBCA/DA - Griffiss Environmental	AFBCA/DA - Griffiss Real Estate	315-330-2275

3. TITLE OF PROPOSED ACTION
Lease Parcel F12A to the Griffiss Local Development Company (GLDC).

4. PURPOSE AND NEED FOR ACTION *(Identify decision to be made and need date)*
The GLDC requests a lease for Parcel F12A for sublease to a private contractor.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES *(DOPAA) (Provide sufficient details for evaluation of the total action.)*
Marketed by OCIDA for Industrial development.

6. PROPONENT APPROVAL *(Name and Grade)*	6a. SIGNATURE	6b. DATE
Anna L. Lemaire, GM - 13	for	21 Aug 00

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. *(Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)*	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*		X		
9. WATER RESOURCES *(Quality, quantity, source, etc.)*		X		
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity-distance, etc.)*		X		
11. HAZARDOUS MATERIALS/WASTE *(Use/storage/generation, solid waste, etc.)*		X		
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, flora, fauna, etc.)*		X		
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)*		X		
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*	X			
16. OTHER *(Potential impacts not addressed above.)*		X		

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17. [X] PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # A2.3.11 ; OR
[ ] PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS
These impacts are categorically excluded from further analysis based on CATEX #A2.3.11 which encompasses the granting of lease to use USAF-controlled property for actions similar to other actions which have been determined to have an insignificant impact in a similar setting as established in the Final Environmental Impact Statement (FEIS) for Griffiss AFB, dated Nov 95 and the Final Supplemental Environmental Impact Statement, dated Sept 99. Based on this analysis, the environmental impacts of the lease proceedings are not sufficiently adverse to human health and the environment to outweigh the other advantages to the community and the public interest of this lease, or to prevent the leasing of the property.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION *(Name and Grade)*	19a. SIGNATURE	19b. DATE
Michael F. McDermott, GS - 13		8/21/00

Lease Restriction/ Disclosure or Notification Required?		*Environmental Factors Considered*
No	**Yes**	
		Environmental Restoration, Hazardous Substances, Petroleum
X		Hazardous Substances (Notification)
	X	Installation Restoration Program (IRP) and Areas of Concern
X		Medical/Biohazardous Wastes
	X	Oil/Water Separators (OWSs)
	X	Unexploded Ordnance
X		Radioactive & Mixed Wastes
	X	Storage Tanks (UST/AST)
		Disclosure Factors/Resources:
	X	Asbestos
	X	Groundwater Quality
X		Drinking Water Quality
X		Indoor Air Quality
X		Lead-Based Paint (High-Priority Facilities)
	X	Lead-Based Paint (Other Facilities)
X		PCBs
X		Radon
		Other Factors:
X		Air Conformity/Air Permits
X		Energy (Utilities)
X		Flood plains
X		Hazardous Waste Management (By Lessee)
X		Historic Property (Archeological/Native American, Palentological)
X		OSHA (Occupational Safety & Health Administration)
X		Outdoor Air Quality
X		Prime/Unique Farmlands:
	X	Sanitary Sewer Systems (Wastewater)
X		Sensitive Habitat
	X	Septic Tanks (Wastewater)
	X	Solid Waste (Disposal of demolition materials)
X		Threatened and Endangered Species
X		Transportation
X		Wetlands

Attachment 5

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Parcel F12A
REGULATOR COMMENTS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

RECEIVED
5 APR 2000
A.M.

MAR 3 0 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Rome, NY 13441-4105

Re: Draft Finding of Suitability to Transfer (FOST) F-4A and
Draft Finding of Suitability to Lease (FOSL) F-12A

Dear Mr. McDermott:

EPA has reviewed the Draft Finding of Suitability to Transfer ("FOST") and Supplemental Environmental Baseline Survey ("SEBS") for Parcel F-4A, dated January 2000, as well as the Draft Finding of Suitability to Lease ("FOSL") and Supplemental Environmental Baseline Survey ("SEBS") for Parcel F-12A, dated January 2000. Please note these comments were informally provided to you; however, a formal comment letter was never issued because you had indicated that the transfer was withdrawn.

It is now my understanding that the reuse authority still wishes to obtain the transfer of Parcel F-4A and the lease of Parcel F-12A and therefore, I have now formalized my comments. Please review these comments and provide within the draft-final documents a "Response to Regulator Comments" for both the F-4A FOST and the F-12A FOSL.

General Comments

1. The documents indicate that the area is to be used as a steel manufacturing facility. However, because this reuse is no longer applicable, please revise the documents to indicate the intended reuse for each parcel.

2. When the FOST or FOSL references that a cleanup is "Covered Under Another Program" or "Covered Under Project JREZ...", please included the specific regulatory program which is overseeing and approving the cleanup.

3. Since ACM or LBP has been noted on the properties and since the transferee/lessee may be performing construction/ renovation activities, the Air Force should ensure that ACM and LBP management plans are submitted prior to beginning these activities. I also recommend the FOST and FOSL specify where such plans are to be sent prior to the transferee/lessee beginning any construction/renovation activities.

4. Within both figures, the area north of Building 789 contains subsurface soil and groundwater restrictions due to petroleum interim remedial actions. However, the figure has different shaded areas indicating different restrictions are applicable. Please clarify.

FOST F-4A

5) The FOST indicates that there is a reforestation area on the southern end of the property. Please note, I do not consider this area as an area to be used for similar reuse and therefore, it does not qualify for a CATEX exclusion. Should the intended transferee wish to construct in this area, approval should first be obtained from NEPA. Otherwise, the FOST should stipulate with deed restrictions that construction will not occur in this reforestation area.

FOSL 12-A

6) Other than the general comments noted above, I have no other comments for this parcel.

Sincerely,

Douglas M. Pocze
Project Manager
Federal Facilities Section

cc: L. Hancsak, AFBCA/NE
S. DiMeo, Executive Director (GLDC)
M. Rabe, GAFB

Attachment 6

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Parcel F12A
AFBCA RESPONSE TO REGULATORY COMMENTS

1. The USEPA Region 2 submitted comments in response to the January 25, 2000 working draft of the subject FOSL. Their comments are addressed as follows:

a. Comment number 1: AFBCA Response: The reuse scenario has been changed in section 1.2 to industrial/commercial/non-residential.

b. Comment number 2: AFBCA Response: References to the specific regulatory program have been included where applicable.

c. Comment number 3: AFBCA Response: As the Air Force can not act in a regulatory capacity to the transferee or lessee of a property, the submission of asbestos or lead-based paint management plans to the Air Force would serve no purpose. As stated in Sections 5.3 and 5.4 of the FOSL, only a notice that asbestos or lead-based paint exists on the property will be provided in the transfer documents. Responsibility for the compliance with Federal, State or local regulations as they pertain to the management of asbestos and lead-based paint rests solely on the transferee.

d. Comment number 4: AFBCA Response: The extent of soil and groundwater contamination indicated on the site maps for both Parcels F4A and F12A were determined from extensive investigations (soil and groundwater) performed in the fall of 1999. Based upon the preliminary results of these investigations, the soil and groundwater immediately adjacent to Building 789 is contaminated with petroleum hydrocarbons. These investigations also indicate that only groundwater is contaminated north of Building 789 (Parcel F12A) and the groundwater is flowing in a north to northeast direction. The restrictions as indicated on the map are correct.

e. Comment number 5: AFBCA Response: The response to this comment is published in the Air Force Response to Comments Exhibit of the Parcel F4A FOST.

f. Comment number 6: AFBCA Response: Comment noted.

2. The NYSDEC did not submit comments in response to the January 25, 2000 working draft of the subject FOST.

August 2000

SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

Parcel F12A

Griffiss AFB, NY

CHAPTER 1 - PURPOSE OF THE SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

1.1 Introduction. This Supplemental Environmental Baseline Survey (SEBS) has been prepared to document the environmental condition of Parcel F12A resulting from the storage, release, or disposal of hazardous substances and/or petroleum products and other environmental conditions over the area's history in order to establish a baseline for use by the United States Air Force (USAF) in making decisions concerning real property transactions. Changes in the environmental condition of the property since publication of the Griffiss Air Force Base (AFB) Basewide EBS are also documented in this SEBS.

1.2 Description:

The property consists of a total of approximately 34.97 acres. The property includes the concrete paved area to the north of the Alert Apron, the grassed area located to the southeast of the Alert Apron, and the following facilities:

Facility Number	Former Air Force Use	Square Footage
764	Crew Readiness Facility	3,269
793	Crew Readiness Facility	18,318
811	Master Surveillance and Control Facility	35
6389D	Industrial Waste Treatment & Disposal Facility	N/A

CHAPTER 2 - SURVEY METHODOLOGY

2.1 Approach and Rationale. The data used in preparing this SEBS were obtained from the Griffiss AFB Basewide EBS dated September 1994. The EBS was based on record searches, interviews, and visual site inspections (VSIs). The data and information contained in the EBS were prepared in accordance with Department of Defense (DoD) policies and guidance, as they pertain to the procedures for conducting an EBS. Confirmatory VSIs were conducted and additional data was collected in January and July 2000, to verify the condition of the property.

Based on a review of the Basewide EBS and a VSIs of the property, the buildings, structures, and surrounding areas are considered DoD Environmental Condition Category 2. Category 2 areas are those areas where only release or disposal of petroleum products has occurred.

The United States Environmental Protection Agency (USEPA) concurs that only the release or disposal of petroleum products has occurred.

2.1.1 Description of Documents Reviewed. A list of the documentation reviewed is provided in the Griffiss AFB Basewide EBS. The primary types of studies or investigations included Installation Restoration Program (IRP) studies, the USAF Base Realignment and Closure (BRAC) Cleanup Plan (April 1994), the 1993 USAF Real Property Inventory, underground storage tank/above ground storage tank (UST/AST) investigations, National Environmental Policy Act documentation, the 1993 Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings Preliminary Report, and Federal, State, and local documentation.

2.1.2 Inspection of Properties Conducted. VSIs of the interior and exterior of the buildings and associated property were conducted during preparation of the Basewide EBS. Confirmatory VSIs were conducted in January and July 2000 to document any changes in the property condition that had occurred since the initial Basewide EBS was published. The purpose of the VSIs was to identify any stained soils, stressed vegetation, leachate seepages, unusual odors, friable insulation, peeling paint, etc., which might indicate environmental concern.

2.1.3 Personnel Interviews. Base personnel were contacted and interviewed, when possible, during the initial records search and VSI trips conducted for the Basewide EBS. Personnel interviewed during the Griffiss AFB Basewide EBS included representatives from civil engineering, real property, industrial engineering, and operations. The USAF Remedial Project Manager (RPM), who is responsible for initiating and managing projects that are necessary to evaluate and cleanup sites that have been contaminated with hazardous substances and waste from past base activities, was also interviewed.

CHAPTER 3 - FINDINGS FOR PARCEL F12A

3.1 Environmental Setting. Griffiss AFB occupies approximately 3,540 acres in central Oneida County in upstate New York, in the City of Rome. A description of the area's climate, topography, hydrology, geology and utilities are contained in Section 3.2 of the Griffiss AFB Basewide EBS.

3.2 Property Categorization Resources

3.2.1 Environmental Factors. There is/was no record or evidence of medical/ biohazardous waste, pesticides and radioactive waste releases on the subject property. No PCB-containing equipment is located on the property. No threatened or endangered species, sensitive habitats, cultural resources, prime or unique farmland, wetland or floodplain concerns are associated with the property.

3.2.2 Hazardous Substance/Material Storage.

Past activities indicate that the storage of hazardous materials and wastes was not performed on the property. No evidence of release of any hazardous substances to the environment was identified during the VSIs. There were no reported releases on the property.

3.2.3 IRP Sites, Areas of Concern (AOC) Sites and Areas of Interest (AOIs) Sites Identified to Date. There is one (1) AOC site located within the subject property.

AOC/IRP Site ID	Site Name
SD-52	On Base Groundwater

At **SD-52, On Base Groundwater Contamination**, the groundwater on the property was investigated and analytical results are presented in the Draft Final Remedial Investigations (RI) report dated December 1996. The draft RI report indicated that no release, disposal, or migration of CERCLA hazardous substances that would affect the groundwater on the property has occurred.

All AOIs on the subject property have been classified as Covered Under Other Programs or No Further Study.

3.2.4 Underground and Aboveground Storage Tanks (USTs and ASTs). There are two (2) UST sites and three (3) former UST sites on the property. There are no AST sites associated with this property. Table 3.2.4 lists the storage tank numbers, locations, identified releases, and status of the tanks.

Table 3.2.4
Storage Tanks

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-764-1 Fuel Oil	550	Northwest of B/764	None	Removed 1991 900128	1991
UST-764-2 Fuel Oil	550	Northwest of B/764	None	In Service	N/A
UST-793-1 Fuel Oil	15,000	Southeast of B/793	None	Removed 1991 900128	1991
UST-793-2 Fuel Oil	2,000	Northwest of B/793	None	Removed 1991 900128	1991
UST-793-3 Fuel Oil	5,000	Northwest of B/793	None	Temporarily Out Of Service	N/A

* All tanks listed as closed on the above table have been removed from the Griffiss AFB Major Oil Storage Facility license.

There is one UST site (UST-789-2) located on adjacent property that has impacted the property. A petroleum release (open spill number #9810713) consisting of jet fuel exists at this site. Petroleum contaminated groundwater has migrated onto the property and will be remediated under project number JREZ00-7006 during 2001.

3.2.5 Petroleum, Oil and Lubricant Systems (POL). There is one underground fuel line site on the property. Table 3.2.5 lists the POL number, location, identified releases, and status of the system.

Table 3.2.5
POL System

POL Number	Location	Releases/ Spill Number/Status	POL Status/Removal Project Number	POL Closure Date
POL-781-2	Runs north and south just east of Apron 2 and supplied the refueling pits for Baker Row, Apron 2	Spill # 9608239 closed 10/2/96, Spill # 9713631 associated with Apron 2/ OPEN	Deactivated 1993. Cleaned & sampled under 95-0038 in 1996, further investigations under 97-6003	1996

3.2.5 Oil/Water Separators (OWSs). There is one (1) OWS site located on the property. Table 3.2.6 lists the OWS number, location and status of the OWS.

Table 3.2.6
Oil/Water Separators

OWS Number	Location	Releases/ Spill Number /Status	OWS Status	OWS Closure Date
OWS-6389-4	Northeast of Alert Apron / Taxiway 1	None	Collects runoff from Alert Apron / Taxiway 1 Area	Active

3.2.7 Wastewater

Building 793 is connected to a sanitary sewer.

There is one grease trap located on the property, GT-793. The grease trap is operational and serves sinks and a dishwasher in the kitchen area. The grease trap was evaluated under project JREZ95-7090 and recommended for no further study. This site has received regulator concurrence.

There is one (1) septic tank present on the property. SPT-764 (tank and drain field) is located northwest of Building 764 and is connected to the sanitary system in Building 764. This system is operational.

3.2.8 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research

of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven munitions related sites are identified to be present within the property. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property.

3.2.9 Historic Property

The draft Historic Structures Survey dated October 1995 was issued for review and revised on July 14, 1998. Comments on the revised draft were received from the NY State Office of Parks, Recreation and Historic Preservation on September 9, 1998. Based on the comments received, all buildings located within the property have been released from consideration.

3.3 Disclosure Resources

3.3.1 Asbestos Containing Materials (ACM)

The asbestos survey results of buildings on Griffiss AFB are presented in Appendix H, table H-1 of the Basewide EBS. Subsequent to the publication of the Basewide EBS, a comprehensive asbestos survey was performed in the fall of 1994. ACM was not identified in Building 811. ACM was identified in Buildings 764 and 793. The asbestos observed during the VSIs generally appeared in good condition as noted in the VSI reports.

3.3.2 Lead-Based Paint (LBP)

LBP is assumed not to be present in Building 811 since it was constructed after 1978. LBP may be present in Buildings 764 and 793 since they were constructed prior to 1978. The Air Force has classified these facilities as facilities with a probability of having a LBP hazard because they were constructed prior to 1978 when the maximum allowable content of lead in paint was reduced. The condition of possible LBP is noted in the VSI report for each building.

CHAPTER 4 - FINDINGS FOR ADJACENT PROPERTIES

4.1 Adjacent Properties. Appendix A, Table A-1 in the Basewide EBS, identifies the properties that are adjacent to the subject property. Additional information on each site is provided in Appendix D of the Basewide EBS. There are four (4) Area Of Concern (AOC) or Installation Restoration Program (IRP) sites located on adjacent property that may impact the property to be leased.

AOC/IRP Site ID	Site Name
SD-32	Six Mile Creek and WSA Lagoon

AOC/IRP Site ID	Site Name
SD-41	Bldg 782, Nose Docks 1 & 2
SS-46	Glycol Use/Storage Areas
ST-54	Building 781-Pumphouse 1

SD-32, Six Mile Creek and WSA Lagoon, is an AOC located north of the property. The USAF recommended in its draft final RI report dated December 1996 that a feasibility study be performed to evaluate potential remedial actions required to mitigate chemicals of concern in the surface water and sediments. The draft FS was issued in January 1999. Additional sampling of the off base portion of the creek was performed in the fall of 1999. A draft FS addendum report was issued to the regulators on March 20, 2000 and comments on the report were received from the USEPA on June 1, 2000 and from the NYSDEC on June 19,2000.

SD-41, Building 782 (Nose Docks 1 & 2), is an AOC that is located adjacent to Buildings 782 and 783, between Aprons 1 and 2. The site consists of two areas of contaminated soil, the first associated with releases from an oil/water separator (OWS) located near the northern corner of Building 782, and the second in the vicinity of a soil fire that occurred during trenching operations between the Nose Docks and Apron 1. Stained soil has been excavated in the past to a depth of 2 feet; however, contamination below this level is known to exist. The draft final RI report issued in December 1996 recommended removal of the OWS and contaminated soils, investigation of the source of contamination in the vicinity of the trench fire along the southern edge of Apron 1, and the evaluation of remedial alternatives for the remediation of contaminated subsurface soils and groundwater in the area. The RI report also recommended delineation of petroleum hydrocarbon contamination in the groundwater at the site. Additional investigations are presently being performed under project JREZ97-6003, Remedial Action for Former Underground Storage Tanks (USTs) sites.

SS-46, Glycol Use and Storage Area, is an AOC that was recommended by the USAF for no further action in the draft final RI report dated December 1996. This AOC is primarily associated with glycol spills in the vicinity of Apron 2, northwest of the property. Regulator concurrence has not been obtained.

ST-54, Building 781-Pumphouse 1 is an IRP site that is located west of the property. Project JREZ 93-0054, Site Assessment and Implementation of Corrective Measures Pursuant to Site Closure at Pumphouse 1, 2, 3, 4, is currently active to address the free product and petroleum contamination. NYSDEC Spill Number 9202658 is associated with this site.

CHAPTER 5 - PROPERTY CATEGORY

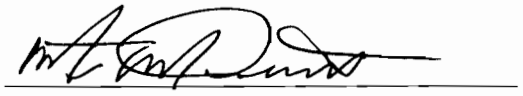
5.1 Conclusions: Based on a review of the Basewide EBS and VSIs of the property, the buildings, structures, and surrounding areas are considered DoD Environmental Condition Category 2. Category 2 areas are those areas where only release or disposal of petroleum products has occurred.

The USEPA concurs that only the release or disposal of petroleum products has occurred.

The identified IRP sites within and adjacent to the property are not expected to pose a concern to the leasing of the property.

CHAPTER 6 - CERTIFICATION

I certify that the property conditions stated in this report are based on a thorough review of available records, visual inspections, and sampling and analysis as noted, and are true and correct to the best of my knowledge and belief.



8/21/00

MICHAEL McDERMOTT
BRAC Environmental Coordinator
AFBCA/DA - Griffiss

Date

Attachments:
1. Table H-1 (1994 Basewide EBS)
2. Comprehensive Asbestos Survey

Attachment # 1

Griffiss AFB
SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY (SEBS)
Parcel F12A
TABLE H-1 (BASEWIDE EBS)

Bldg	Location	Quantity	Building Element	Inspection Date	Last Inspection	Number	Result	Comments
782	Mechanical Room		Heat Exchange Insulation	87/09/23		GM870300	85	Domestic hot water heat exchanger. Fair to Poor condition. 85% Chrysotile, 7% Amosite
782	Mechanical Room		Heat Exchange Insulation	87/09/23		GM870408	80	Domestic Hot water heat exchanger. Fair to poor condition. Chrysotile.
782	Mechanical Room		Pipe Joint Insulation	87/09/23		GM870409	80	Chrysotile
782	Mechanical Room		Pipe Insulation	87/09/23		GM870410	65	Steam entrance pit, old insulation. Chrysotile
783	Mechanical Room		Heat Exchange Insulation	87/09/23		GM870411	35	Block Insul, poor cond. All other insul same as bldg. 782, good condition. 35% Chrysotile, 15% Amos
784	Mechanical Room			87/09/23				Good Condition. Insulation same as in building 782.
784	Mobility/Training		Floor Tile	90/03/14		GM900075	ND	12' RED
784	Mobility/Training		Floor Tile Mastic	90/03/14		GM900076	ND	
785	Mechanical Room			87/09/23				Good condition. Insulation same as in building 782.
786	Mechanical Room			87/09/23				Good Condtion. Insulation same as in building 782.
789	Boiler Room		Boiler Stack Insulation	91/02/05		CE910162	14	AMOSITE.
789	Boiler Room		Steam Pipe Fitting Insulation	91/02/05		CE910163	9	CONDENSATE LINE.
789	Boiler Room		Water Tank Insulation	91/02/05		CE910164	28	HOT WATER STORAGE TANK OUTER INSULATION OVER FIBERGLASS.
793	Mechanical Room		Small Boiler	87/06/15		GM870273	60	60% chrysotile, 25% amosite. Encapsulated in Jun 1987. Good condition.
793	Mechanical Room		Large Boiler	87/06/15		GM870274	30	5% chrysotile, 30% amosite. Encapsulated in Jun 1987.
793	Mechanical Room		Gray Piping Insul.	87/06/15		GM870275	25	chrysotile
793	Bathroom		Pipe Insulation	87/12/22		GM870731	ND	Pipe insulation between floors.
793	Lower Level, Room A		Door Insulation	90/02/20		GM900035	ND	FIRE RATED DOOR.
793	Fox Row		Water Main	91/09/12		CE910507	41	19% CHRYSOTILE, 22% CROCIDOLITE.
799	B-Alert Guard House			91/05/16				THIS FACILITY IS ASBESTOS FREE.
805	Generator Room		Water Line Fitting	92/06/22		CE920196	8.7	CHRYSOTILE, CAL-SIL TYPE MUDDED INSULATION.
805	Generator Room	50	Water Line Insulation	92/06/22		CE920197	ND	MILLBOARD INSULATION.
805	Main Rm	900 SF	Floor Tile	92/06/22				9" X 9" VINYL ASBESTOS TILE. THE GENERATOR ROOM HAS A CONCRETE FLOOR.
811	Tower Ceiling		Ceiling Tile	91/05/16		CE910256	ND	1' SQUARES
817	Center of Bldg		Ceiling Tile	89/05/18		GM890123	ND	

Bldg	Location	Quantity	Building Element	Inspection Date	Last Inspection	Number	Result	Comments
724	Dining Room		Ceiling Material		87/12/22	GM870728	<1	Chrysotile, Sample taken near light fixture.
724	Cashier's Cage		Pipe Joint Insulation		87/12/22	GM870729	3	All asbestos removed on 88/02/25
745	SP'S Rescue Fire Team			90/12/03				THIS BUILDING IS ASRESTOS FREE. ALL PIPE INSULATION IS FIBERGLASS AND THE FLOOR TILE IS ALL 12 INCH NON-ASBESTOS VINYL TILE.
748	Generator Exhaust		Gen Exhaust Insulation	91/11/06		CE910539	ND	CAL-SIL TYPE.
750	Mechanical Room		Water Line Insulation	87/12/03		GM870588	ND	Good condition. Aircell insulation.
750	Attic		Pipe Insulation	87/12/03		GM870589	70	Bad condition. Aircell insulation. Chrysotile.
750	Attic		Pipe Joint Insulation	87/12/03		GM870590	30	Bad condition. Pipe joint insulation.Chrysotile.
750	Steam Pit, Near 234		Steam Pipe Elbow Insulation	90/07/16		GM900166	7	PIPE INSULATION IN THE PIT CONTAINS 60% ASBESTOS.
757	Building Siding		Siding	89/07/26		GM890390	10	ANALYSIS IDENTIFIES MATERIAL AS GREY CERAMIC TILE.
757	Exterior Siding		Cement Shingles	90/07/27		GM900177	35	
764	Roof Soffit		Perforated Transite	90/08/10		GM900196	25	
766	Floor	100 SF	Floor Tile	92/01/14		CE920105	7.7	CHRYSOTILE. 12" MOTTLED GREY. BUILDING TO BE DEMOLISHED. NO OTHER SUSPECTED ACM DETECTED.
770	Combat Crew Comm		Safe	89/10/18		GM890715	ND	
770	Combat Crew Comm		Ceiling Tile	90/02/01		GM900019	ND	2ND FALSE CEILING
770	Combat Crew Comm		Floor Tile	90/02/01		GM900020	10	
770	Combat Crew Comm		Floor Tile	90/02/01		GM900021	5	9" BLACK WITH WHITE STREAKS.
770	Command Post Hallway		Ceiling Tile	90/02/01		GM900022	ND	12" TONGUE AND GROOVE.
770	Combat Crew Comm		Floor Tile	90/02/01		GM900023	8	9" DARK BROWN WITH RED AND CREAM
770	Mens Latrine		Pipe Joint Insulation	90/02/01		GM900024		NEAR HEATER
770	Combat Crew Comm		Plaster over Concrete	90/06/25		GM900153	ND	SEE DIAGRAM ON SAMPLE LOG.
771	Outside-Underground		Steam Line	92/02/05		CE920116	33.8	CHRYSOTILE, SEE FACILITY FOLDER FOR ADDITIONAL INFORMATION AND A SKETCH.
774	Fire Control		Floor Tile	90/03/22		GM900086	7	ALL 9" AND 12" FLOOR TILES IN THIS ROOM CONTAIN ASBESTOS.
774	Penthouse, East Side		Pipe Elbow Insulation	90/04/12		GM900100	ND	
774	Penthouse, East Side		Roofing Felt	90/04/12		GM900101	ND	

Attachment # 2

Griffiss AFB
SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY
Parcel F12A
COMPREHENSIVE ASBESTOS SURVEY

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 793 ALERT FACILITY

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
EXT	Floor:0X Exterior	2700 sqft	8						No Suspected Asbestos Containing Material In Space.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Foam Rubber, Non-asbestos Containing Material.
KITCHEN	Floor:01 Kitchen	1900 sqft	2						
	006 Wall - Sheetrock	1200 sqft		1	5	1	0	Negative	
	007 Ceiling - Plaster	544 sqft		1	2	0	0	Negative	Partially Above Ceiling.
	AAA Fittings - Abandoned	4 ftgs	3	1	2	6	0	Assmd Pos.	Unable To Sample Due To Location Above Ceiling Assumed To Be Asbestos Containing. Mud Fittings On Fiberglass Line.
	AAA Ceiling Tile - Lay In	96 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' Fissured; 2' X 4' Fissured Pinhole; 2' X 2' Recessed With Small Fissures.
	AAA Vinyl Composite Tile Floor	172 sqft	7	1	8	0	0	Assmd Pos.	12" X 12" Gray And White Mottled; 9" X 9" Red; 9" X 9" Light Green; 9" X 9" Dark Green; 9" X 9" Black.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Partially Above Ceiling.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Partially Above Ceiling.
GYM	Floor:2B Misc. Gym Room	159 sqft	1						
	003 Domestic Water Pipe Insulation	34 ft		1	0	0	0	Negative	Tar Foil. Above Ceiling.
	004 Domestic Water Fitting Insulat	12 ftgs	2	5	5	6	0	Positive	Mud Fittings On Fiberglass Line. Above Ceiling.
	005 Ceiling - Plaster	159 sqft		1	0	0	0	Negative	Above Ceiling.
	006 Wall - Sheetrock	147 sqft		1	5	1	0	Negative	
	AAA Ceiling Tile - Lay In	150 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' Fissured; 2' X 4' Fissured Pinhole; 2' X 2' Recessed With Small Fissures.
	AAA Vinyl Composite Tile Floor	159 sqft	7	1	8	0	0	Assmd Pos.	12" X 12" Gray And White Mottled; 9" X 9" Red; 9" X 9" Light Green; 9" X 9" Dark Green; 9" X 9" Black.
GYN	Floor:2B Misc. Gym Room	159 sqft	8						
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.

Plant: GRIF Site NEW
Building: 793 ALERT FACILITY

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Outer Wall Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Wall - Sheetrock	-		-	-	-	-	Assmd Neg.	Ultra-wall/untaped Sheetrock, Non-asbestos Containing Material.
MECH	Floor:1B Mechanical Room	847 sqft	3						
	001 Mech Equip. - Tank	138 sqft		1	5	6	0	Negative	
	002 Mech Equip. - Tank	25 sqft		1	5	6	0	Negative	
	005 Ceiling - Plaster	847 sqft		2	0	0	0	Negative	
	AAA Mechanical Equipment Gasket	1 sqft	3	1	2	1	0	Assmd Pos.	
	NNN Domestic Hot Water Tank	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Under Metal Jacket.
	NNN Mech Equip. - Boiler	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Inside Boiler.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Foam Rubber, Non-asbestos Containing Material.
	NNN Mech Equip. - Heat Exchanger	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Foam Rubber, Non-asbestos Containing Material.
MECH	Floor:2B Mechanical Room	847 sqft	8						
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Mech Equip. - Chiller	-		-	-	-	-	Assmd Neg.	Foam Rubber, Non-asbestos Containing Material.
UPPER OF	Floor:01 Office	6300 sqft	2						Pipe Chase Was Partially Or Totally Inaccessible.
	006 Wall - Sheetrock	14000 sqft		1	5	1	0	Negative	
	007 Ceiling - Plaster	135 sqft		1	2	0	0	Negative	
	007 Wall - Plaster	40 sqft		1	5	0	0	Negative	
	008 Vinyl Composite Sheet Floor	494 sqft		1	8	0	0	Negative	Tan Mosaic Pattern.
	AAA Vinyl Composite Tile Floor	270 sqft	7	1	2	0	0	Assmd Pos.	Partially Under Carpet. 12" X 12" Gray And White Mottled; 9" X 9" Red; 9" X 9" Light Green; 9" X 9" Dark Green; 9" X 9" Black.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 793 ALERT FACILITY

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
	AAA Ceiling Tile - Lay In	6200 sqft	2	1	2	3	0	Assmd Pos.	2' X 2' Fissured; 2' X 4' Fissured Pinhole; 2' X 2' Recessed With Small Fissures.
	NNN Ceiling - Sheetrock	-		-	-	-	-	Assmd Neg.	Ultra-wall/untaped Sheetrock, Non-asbestos Containing Material. Above Ceiling.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Foam Rubber, Non-asbestos Containing Material. Above Ceiling.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Outer Wall Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Behind Wall.
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
LOWER OF	Floor:1B Office	6600 sqft	1						
	003 Domestic Water Pipe Insulation	554 ft		1	2	0	0	Negative	Tar Foil. Above Ceiling.
	004 Domestic Water Fitting Insulat	26 ftgs	4	1	2	6	0	Positive	
	006 Wall - Sheetrock	16000 sqft		1	5	1	0	Negative	
	007 Ceiling - Plaster	6600 sqft		2	2	0	0	Negative	Above Ceiling.
	009 Pipe (type Not Specified.)	28 ft	3	4	2	3	0	Positive	Above Ceiling.
	AAA Ceiling Tile - Lay In	6600 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' Fissured; 2' X 4' Fissured Pinhole; 2' X 2' Recessed With Small Fissures.
	AAA Vinyl Composite Tile Floor	120 sqft	7	1	8	0	0	Assmd Pos.	12" X 12" Gray And White Mottled; 9" X 9" Red; 9" X 9" Light Green; 9" X 9" Dark Green; 9" X 9" Black.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Hvac - Flexible Duct/flex Duct	-		-	-	-	-	Assmd Neg.	Rubber/vinyl Material.
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Foam Rubber, Non-asbestos Containing Material. Above Ceiling.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Foam Rubber, Non-asbestos Containing Material. Above Ceiling.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 793 ALERT FACILITY

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
ROOF4	Floor:1R Roof	756 sqft	7						
	AAA Asphalt And Gravel	756 sqft	7	1	8	0	0	Assmd Pos.	
ROOF1	Floor:2R Roof	480 sqft	8						No Suspected Asbestos Containing Material In Space.
ROOF2	Floor:2R Roof	480 sqft	8						No Suspected Asbestos Containing Material In Space.
ROOF3	Floor:2R Roof	860 sqft	7						
	AAA Asphalt And Gravel	860 sqft	7	1	8	0	0	Assmd Pos.	
ROOF5	Floor:3R Roof	9000 sqft	7						
	AAA Asphalt And Gravel	9000 sqft	7	1	8	0	0	Assmd Pos.	
UPPER TO	Floor:01 Toilet Room	187 sqft	3						Pipe Chase Was Partially Or Totally Inaccessible.
	006 Wall - Sheetrock	268 sqft		1	5	1	0	Negative	
	007 Ceiling - Plaster	187 sqft		1	2	0	0	Negative	Above Ceiling.
	AAA Ceiling Tile - Lay In	187 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' Fissured; 2' X 4' Fissured Pinhole; 2' X 2' Recessed With Small Fissures.
LOWER TO	Floor:1B Toilet Room	593 sqft	2						
	003 Domestic Water Pipe Insulation	140 ft		1	0	0	0	Negative	Above Ceiling. Tar Foil.
	004 Domestic Water Fitting Insulat	18 ftgs	4	1	0	6	0	Positive	Above Ceiling. Mud Fittings On Fiberglass Line.
	006 Wall - Sheetrock	2100 sqft		1	5	1	0	Negative	
	007 Ceiling - Plaster	560 sqft		1	2	0	0	Negative	Above Ceiling.
	AAA Ceiling Tile - Lay In	593 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' Fissured; 2' X 4' Fissured Pinhole; 2' X 2' Recessed With Small Fissures.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Foam Rubber, Non-asbestos Containing Material. Above Ceiling.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 793 ALERT FACILITY

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
NNN	Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.

JG

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
Bureau of Habitat, Room 576
50 Wolf Road, Albany, New York 12233-4756
Phone: (518) 457-6178 FAX: (518) 485-8424

hn P. Cahill
mmissioner

RECEIVED

Going about the deadline. My printer is on the fritz. Christina

MEMORANDUM

TO: Jonathan Greco, DER Bureau of Eastern Remedial Action

FROM: Christina Dowd, DFWMR Hazardous Waste Site Evaluation Unit

RE: Griffiss Air Force Base, ID# 633006
Project Specifications for Landfill 7 Cover Design dated February 1999 and Drawings G-01 through C-05 dated February 24, 1999, both prepared by Ecology and Environment

DATE: July 31, 2000

I reviewed the document(s) referenced above. I have the following comments.

The primary DFWMR concerns for the landfill cover work center on wetland and endangered species habitat protection.

Section 01060 Regulatory Requirements (Parts 1 and 3)

- This section should include New York State Freshwater Wetland Regulations, 6NYCRR Part 663 and Endangered Species Regulations, 6NYCRR Part 182.

- The delineated wetland boundary shown on the construction drawings needs to be reviewed by NYS Division of Fish, Wildlife and Marine Resources to determine if it is an acceptable boundary for the purposes of protecting the NYS regulated wetland RO-44.

Section 01410 Environmental Protection (Part 1.4.3)

- In order to provide for the protection of New York State threatened and/or endangered bird species in the vicinity of the project, the construction schedule needs to be set to avoid disturbance of the nesting season and unnecessary disturbance of habitats used by these species. Contact Christina Dowd at (518) 457-9278 to arrange for determination of construction window and work area limits (Section 1.3.1).

Other

- A section should be included for long-term monitoring and maintenance. Maintenance of the landfill vegetative cover should be scheduled so that mowing is conducted once a year after the nesting and fledging season for New York State threatened and/or endangered bird species. Since potential leachate is not being controlled, surface water monitoring should include the drainage swales.

- Where erosion control is installed for protection of wetlands, such erosion control shall not be removed until disturbed areas are completely re-vegetated. If encroachment into the wetland is necessary to complete the landfill grading plan, restoration and/or mitigation will be required.

Drawing C-02 Limits of Work

- The location of erosion control for protection of the wetlands should be shown on the drawing and on a detail sheet, as necessary.

Drawing C-03 Final Grading Plan

- The outlets of the drainage swales directing water to the wetlands should have a sediment trap/flow attenuation structure similar to the rock filter outlet shown on the construction detail sheet C-05.

If you have any questions or comments, please call me at (518) 457-9278.

cc: S. Sanford (PC, RK, ET)
A. Schiavone
A. Richardson

JG
Commented upon Aug 8, 2000

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

JUL 27 2000

MEMORANDUM FOR Mr. Doug Pocze
USEPA Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

Mr. Sal Ervolina, Director/
Mr. Jonathan Greco, Project Manager
New York State Department of
Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Lease Application – Building 131

1. AFBCA/DA-Griffiss has prepared the attached draft FOSL (Finding of Suitability to Lease) for Building 131. In support of the subject lease applications, we request that your organization review the attached draft FOSL and provide written review comments to this office within ten working days from the time you receive this package.

2. If you have any questions on the draft FOSL, please contact Michael Wojnas, (315) 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment:
Draft FOSL, B/131

cc: AFBCA/DA (Ms. Lynn Hancsak)

AFBCA/DA - GRIFFISS

FINDING OF SUITABILITY TO LEASE

BUILDING 131

DRAFT

JULY 2000

FINDING OF SUITABILITY TO LEASE (FOSL)
BUILDING 131
GRIFFISS AIR FORCE BASE (AFB), NEW YORK

1. PURPOSE

1.1 The purpose of this FOSL is to document environmentally-related findings and the suitability to lease property at Griffiss AFB, New York, to the Griffiss Local Development Corporation (GLDC). The property is described in Section 2 below. The property will be leased to the GLDC on an interim basis for a term of one year, with four additional options to renew with a term of one year each. The GLDC will sublease the property to a private business for use as an office building for development of software and software support activities for the Air Force.

1.2 This FOSL is a result of an analysis of information contained in the following documents: (1) Final Environmental Impact Statement (FEIS) for the Disposal and Reuse of Griffiss Air Force Base, New York, November 1995; (2) Final Supplemental Environmental Impact Statement (FSEIS) for the Disposal and Reuse of Airfield at Griffiss Air Force Base, New York, September 1999; (3) Basewide Environmental Baseline Survey (EBS) for Griffiss Air Force Base, New York, September 1994; (4) Basewide Environmental Baseline Survey Update, March 1997; (5) Draft Final Remedial Investigations (RI) Report dated December 1996; (6) Griffiss Area of Interest (AOI) Reports dated November 1996 (Group 1), May 1997 (Group 2 and 3) and July 1998 (Expanded Site Investigation); (7) Unexploded Ordnance (UXO) Archives Search Report - Recommendations and Findings, dated November 1997; (8) Final BRAC Removal Actions (UXO) Report, dated 30 October 1998; (9) 1993 Inventory of Rare Plant Species and Significant Natural Communities at Griffiss AFB, dated 25 January 1994; (10) Phase II Archaeological Investigations of 20 Sites at Griffiss AFB, dated April 1997; and (11) a Visual Site Inspection (VSI) conducted in July 2000. A VSI form describing information gathered during the VSI is included as Attachment 1 to this document.

2. PROPERTY DESCRIPTION

The property to be leased is shown on the map (Attachment 2) and consists of a total of approximately 3.29 acres. The property includes Building 131 (12,027 sf), the grass area north of the building (includes B/5893 - Outdoor Recreation Pavilion – 476 sf) and the paved parking areas to the south.

3. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE

The environmental impacts of this proposal have been adequately analyzed and disclosed in compliance with NEPA. These impacts are analyzed in the FEIS for the Disposal and Reuse of Griffiss Air Force Base, New York, November 1995 and are Categorically Excluded from further analysis as described in CATEX #A2.3.11 and documented on the attached USAF Form 813 (Attachment 3). Based on this analysis, the environmental impacts of proceeding with the Lease are not sufficiently adverse to human health and the environment to out-weigh the other

advantages to the community and the public interest of this Lease or to prevent the Leasing of the property.

4. ENVIRONMENTAL CONDITION OF THE PROPERTY

Based on a review of the Basewide EBS and the VSI of the property, the building and surrounding grass area and pavements are considered Department of Defense Environmental Condition Category 2. Category 2 areas are those areas where only release or disposal of petroleum products has occurred.

The United States Environmental Protection Agency (USEPA) has concurred that only the release or disposal of petroleum products has occurred on the property.

5. DEED RESTRICTIONS AND NOTIFICATIONS

The environmental documents listed in Section 1.2 were evaluated to identify environmental factors which require specific restrictions under the Lease, to preclude threat to human health or the environment, or require notifications to the Lessee. The factors that require either Lease restrictions or notifications are identified in Attachment 4 and are discussed below. The remaining factors listed in Attachment 4 pose no threat to human health or the environment and, therefore, require neither lease restrictions nor notifications to the lessee.

5.1 Installation Restoration Program (IRP) Sites, Areas of Concern (AOCs), and Areas of Interest (AOIs)

The United States Air Force (USAF), USEPA, and New York State Department of Environmental Conservation (NYSDEC) entered into a Federal Facility Agreement (FFA) effective August 21, 1990, under Section 120 of CERCLA.

5.1.1 Subject Property

There are two (2) AOC sites located within the subject property.

AOC/IRP Site ID	Site Name
ST-51	Building 100 - Hydrant Fuel System
SD-52	On Base Groundwater Contamination

ST-51, Building 100 - Hydrant Fuel System, is a Source Removal AOC Site and an interim remedial action was performed during the summer of 1997 under project JREZ95-7050, FFA Source Removals. During the interim remedial action, the underground storage tank (UST-0131-02) was removed. Residual contamination will be addressed under project JREZ97-6042B, Close Spill Sites. The spill number associated with this site is 9704490 (UST-0131-02). See Section 5.2.2 for further information.

SD-52, On Base Groundwater Contamination, is an AOC and the groundwater on the property was investigated and analytical results are presented in the Draft Final RI report dated December 1996. The Draft Final RI report indicated that no release, disposal, or migration of hazardous substances has occurred into the groundwater at the property.

All AOIs on the subject property have been classified as Covered Under Other Programs or No Further Study.

The USAF has evaluated the risks associated with this site and has determined that this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

The Lessee will be advised through the Lease documents of the locations of past, possible, and future remedial actions/investigations. The Lessee will be required under the Lease to comply with the provisions of any health and safety plans in effect under the IRP. The health and safety plans will incorporate Occupational Safety and Health Administration (OSHA) requirements. The Lessee will be restricted from conducting any type of excavation, digging, drilling, or other ground disturbing activity on the subject property without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF and regulatory agencies unrestricted access to the adjacent property to conduct necessary investigation and/or cleanup activities.

5.1.2 Adjacent IRP Sites and AOCs

There are five (5) IRP/AOC sites located on adjacent property that may impact the subject property.

AOC/IRP Site ID	Site Name
SS-08	Building 112-PCB Spill and Lab Drywell
SS-20	Tank Farms 1 and 3
ST-36	Building 110 Aqua System
ST-53	Building 133 Storage Vault
SS-58	Aqua Refueling System

SS-08, Building 112-PCB Spill and Lab Drywell, is an AOC site that has been identified as having soil contaminated with PCBs caused by the leaking of PCB-containing transformers formerly located in the southern section of the building. The site was recommended for a removal action by the USAF in its Draft Final RI report dated December 1996. The interim remedial action fieldwork has been completed under project JREZ97-7006, AOC Removals, and the closure report was forwarded to the regulators. Comments have been received from the USEPA. Closure of this site is pending final regulator approval of the closure report and the issuance of a Proposed Plan and Record of Decision. The remedial action consisted of surface and subsurface soil removal on the exterior south and west sides of the building with disposal of

the PCB-contaminated soil off site. Groundwater at this site has not been impacted. Three USTs were also associated with this site. The tanks were removed and closed in 1993.

SS-20, Tank Farms 1 and 3, is a Source Removal AOC site (NYSDEC Spill Number 9111733). Further investigation will occur to address residual petroleum contamination under project JREZ97-6042, Close Spill Sites.

ST-36, Building 110 Aqua Refueling System, is a Source Removal AOC Site located at Building 110 property to the west of the leased property. B/110 served as a pumphouse and fuel storage station along the fuel distribution system. The Aqua System consisting of an 8-inch pipe network that provided AVGAS and JP-4 fuel to various portions of the flight line and aprons. A portion of the 8-inch pipe network is located on the property. An interim removal action (Project JREZ89-0062) was completed in 1993. The removal action consisted of the cleaning, sampling and closure of the Aqua System fuel lines, removal of four (4) 25,000-gallon fuel storage tanks, and the removal of associated fuel-contaminated soils. NYSDEC Spill Number 8603763 is associated with the four (4) storage tanks which were located west of the property. Further investigation at this site is scheduled for 2000 under project JREZ97-6042, Close Spill Sites.

SS-53, Building 133 Storage Vault, is an AOC site located east of the property that was recommended for a removal action for an oil/water separator (OWS-133) and associated UST-0133-01 and contaminated soils by the Air Force in its Draft Final RI report dated December 1996. The OWS (NYSDEC Spill Number 9201395) and the UST (NYSDEC Spill Number 9702171) were removed in 1997 under project JREZ96-0020, Close Oil Water Separators. Additional soil investigation for the open spill numbers is being conducted under project JREZ96-0020. Additional groundwater investigations were performed under the Supplemental Investigations program. The analytical results from these samples were made available to the regulators in November 1997. Groundwater monitoring is currently being performed in an effort to close the spill numbers.

SS-58, Aqua Refueling System, is an IRP site located near Building 101 property to the west of the property. SS-58 served as an Aqua Refueling System Pipeline consisting of 8,480 linear feet of steel pipe network that provided AVGAS and JP-4 fuel to various portions of the apron surrounding Building 101 and to Building 112. A closure action (project JREZ96-7005, Close Aqua System) has been completed. The closure action consisted of the cleaning, sampling and closure of the Aqua System fuel lines and the removal of a 12,000-gallon fuel salvage tank. There are no spill numbers associated with this site.

The USAF has evaluated the risks associated with these sites and has determined that the subject property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

The Lessee will be advised through the Lease documents of the locations of past, possible, and future remedial actions/investigations. The Lessee will be required under the Lease to comply with the provisions of any health and safety plans in effect under the IRP. The health and safety

plans will incorporate Occupational Safety and Health Administration (OSHA) requirements. The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity on the property without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF and regulatory agencies unrestricted access to the property to conduct necessary investigation and/or cleanup activities.

5.2 Petroleum Storage and Distribution Facilities

5.2.1 Underground and Aboveground Storage Tanks (USTs and ASTs)

There is one (1) former UST site located on the property and one (1) UST site located on adjacent property that may be impacting the property. There are/were no ASTs on the subject property.

Table 5.2.1
Storage Tanks

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-0131-01 Diesel	275	North of B/131	None	Removed 1989	1989
UST-0131-02 Isopropyl Alcohol	25,000	Northeast of B/131 property **	9704490 Open Being Investigated under 97-6042	Removed 1997 97-7050	1997

* All tanks listed as closed on the above table have been removed from the Griffiss AFB Major Oil Storage Facility lease.

** The tank was located northeast of the property, however, the contamination associated with the open spill may have migrated onto the property.

5.2.2 Petroleum, Oil and Lubricant Systems (POL)

There was one (1) former POL system that was located on the property. A portion of POL-5685-02 ran north along the east side of Otis Street and south and east of Building 131 (see IRP site ST-51). POL-5685-02 was deactivated in the 1980s, and sampled and closed in place under project JREZ89-0062 in 1993. There is one (1) open spill number 9704490 along the pipeline that is being investigated under project JREZ97-6042B, Close Petroleum Spill Sites. The area of the spill is located within the boundaries of the property (west side).

The USAF has evaluated the risks associated with these sites and has determined that this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

The Lessee will be restricted from conducting any subsurface excavation, digging, drilling, or other ground disturbing activities at the UST or POL sites without prior written approval from the USAF. Provisions will be placed in the Lease to allow the USAF unrestricted access to the site to conduct investigations, cleanup or removal activities.

5.3 Asbestos Containing Material (ACM)

ACM was identified in Building 131. The asbestos observed during the VSI (Attachment 1) generally appeared to be in good condition. The Lease will require the Lessee to remove or remediate any ACM that during the period of the lease becomes damaged or deteriorated. The Lease will also require the Lessee to submit an appropriate asbestos disposal plan to the Air Force for approval prior to conducting any remediation activities. The Lessee will be responsible for complying with all applicable Federal, State and local laws relating to asbestos.

5.4 Lead-Based Paint (LBP)

LBP may be present in Building 131. The condition of possible LBP is noted in the VSI for the building (Attachment 1). The Air Force has classified this facility as a facility with a probability of having a LBP hazard because it was constructed prior to 1978 when the maximum allowable content of lead in paint was reduced. The Lessee will restrict construction, alteration, or modification (to include paint stripping or sanding) without prior testing of the paint and notification of and approval by the USAF prior to the initiation of the activity. The Lessee will be responsible through the Lease for ensuring that any LBP is maintained in good condition and for managing all LBP and potential LBP in compliance with all applicable laws and regulations. It is unlikely that LBP is present in Building 5893 as the Department of Defense banned the use of LBP products in 1978, prior to the construction of Building 5893 in 1984.

5.5 Sanitary Sewer Systems (Wastewater)

Building 131 is connected to a sanitary sewer. The Lease will require the Lessee to submit appropriate applications for discharging any sanitary waste to the sanitary sewer system prior to the beginning of the Lease and to meet all applicable wastewater discharge permit standards.

5.6 Drywells (Wastewater)

There are two (2) drywells located on the property. DRY-0131-01 is located north of Building 131 and was associated with steam condensate drain collection. This drywell was classified as no further study as AOI 42. DRY-0131-02 is located within Building 131 and is associated with a floor drain located in the mechanical room. This drywell was also classified as no further study under AOI 42.

5.7 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property to be leased has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven munitions related sites are identified to be present within the property to be leased. Clearing operations were performed in the summer of 1998 and documented in a final report dated 30 October 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property to be leased.

All ground disturbing activities performed by the lessee shall be performed in a manner such that the identification of ordnance related material might occur. Upon discovery of any suspected ordnance-related material the appropriate authorities shall be notified.

5.8 Historic Property

The draft Historic Structures Survey dated October 1995 was issued for review and revised on 14 July 1998. Comments on the revised draft were received from the NY State Office of Parks, Recreation and Historic Preservation on 9 September 1998. Based on the comments received, all buildings located within the property have been released from consideration.

5.9 Regulatory Compliance/Permits/Reports (by Lessee)

In addition to the environmental requirements stated above, the Lessee will be required through the Lease to comply with all other applicable laws and regulations and to obtain all environmental permits and approvals that are applicable to the operations conducted at the property. The Lessee will also be required through the Lease to provide the following documentation to the Air Force:

a. Copy of the Notification Letter to the NYSDEC Regulatory Affairs, Region 6 Office advising of operation start-up.
b. Copy of the NYSDEC Regulatory Affairs response.
c. Copy of all permit applications followed by the final permits.

6. REGULATOR COORDINATION

Consolidated draft documents were provided on July 27, 2000 for formal review and comment. Regulator comments (Attachment 5) were received on **???????????** and were incorporated or

addressed in the document. A draft final FOSL was provided for final coordination on ???????. The regulators concurred that their comments have been accurately addressed

7. FINDING OF SUITABILITY TO LEASE

Based on the foregoing information and analysis, I find that this property is suitable to Lease and that environmental conditions do not present an unacceptable risk to human health or the environment, subject to the lease containing appropriate restrictions on the activities of future recipients as addressed above.

Date

ALBERT F. LOWAS, JR.
Director
Air Force Base Conversion Agency

Attachments:
1. Visual Site Inspection Form
2. Property Map
3. Air Force Standard Form 813
4. Environmental Factors Considered
5. Regulator Comments
6. Air Force Response to Regulator Comments

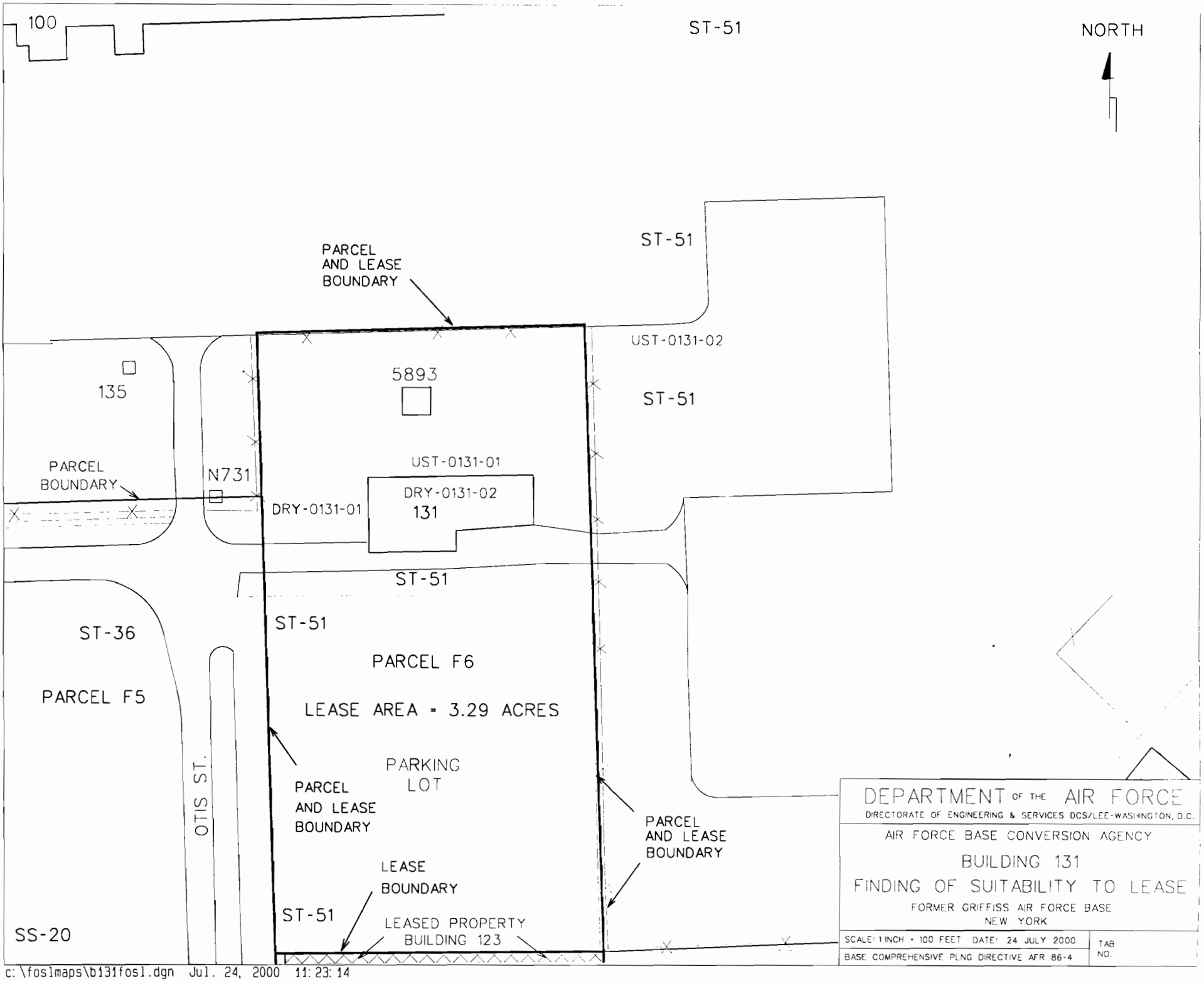
Attachment 1

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 131
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** July 2000
Facility #: Building 131	**Construction Year:** 1956	**Sq. Ft.:** 12,027
Inspected By: John Decharo/Michael Wojnas, AFBCA/DA - GRIFFISS		
Facilities Current Function: Vacant		
Prior Facility Use: Headquarters, NEADS		
Point of Contact: AFBCA/DA - GRIFFISS		
Known Features: Underground Storage Tanks: UST-131-01 (Removed 1989) Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: DRY-0131-01,02 Other Features: POL-5685-02		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: No SAP: No WPP: No Other: None		
Exterior Inspection: B/5893, Outdoor Recreational Pavilion located north of B/131 is in good condition. Exterior in good condition.		
Interior Inspection: Asbestos floor tile in interior mech room is in good condition. Fiberglass pipe insulation in good condition. Some damaged fiberglass pipe insulation in basement mech room. Interior of building in very good condition.		
Comments: None		

Attachment 2

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 131
PROPERTY MAP


100
ST-51
NORTH
PARCEL
AND LEASE
BOUNDARY
ST-51
UST-0131-02
5893
135
ST-51
PARCEL
BOUNDARY
N731
UST-0131-01
DRY-0131-02
DRY-0131-01
131
ST-51
ST-51
ST-36
PARCEL F6
PARCEL F5
LEASE AREA = 3.29 ACRES
PARKING
LOT
OTIS ST.
PARCEL
AND LEASE
BOUNDARY
PARCEL
AND LEASE
BOUNDARY
LEASE
BOUNDARY
ST-51
LEASED PROPERTY
BUILDING 123
SS-20
DEPARTMENT OF THE AIR FORCE
DIRECTORATE OF ENGINEERING & SERVICES DCS/LEE-WASHINGTON, D.C.
AIR FORCE BASE CONVERSION AGENCY
BUILDING 131
FINDING OF SUITABILITY TO LEASE
FORMER GRIFFISS AIR FORCE BASE
NEW YORK
SCALE: 1 INCH = 100 FEET DATE: 24 JULY 2000
BASE COMPREHENSIVE PLNG DIRECTIVE AFR 86-4
TAB
NO.
c:\foslmaps\b131fosl.dgn Jul. 24, 2000 11:23:14

Attachment 3

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 131
AF FORM 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol
RCS:

INSTRUCTIONS: *Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I - PROPONENT INFORMATION

1. TO *(Environmental Planning Function)*	2. FROM *(Proponent organization and functional address symbol)*	2a. TELEPHONE NO.
AFBCA/DA-Griffiss	AFBCA/DA-Griffiss	315-330-2275

3. TITLE OF PROPOSED ACTION
Lease Building 131, NEADS Headquarters Building, to the Griffiss Local Development Corporation (GLDC).

4. PURPOSE AND NEED FOR ACTION *(Identify decision to be made and need date)*
The GLDC requests a lease for Building 131 for sublease to a private contractor. See the attached drawing.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES *(DOPAA) (Provide sufficient details for evaluation of the total action.)*
To be used as an office building for development of software and software support activities for the Air Force.

6. PROPONENT APPROVAL *(Name and Grade)*	6a. SIGNATURE	6b. DATE
Anna L. Lemaire, GM - 13	[signature] for	27 July 00

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. *(Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)*	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*		X		
9. WATER RESOURCES *(Quality, quantity, source, etc.)*		X		
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity-distance, etc.)*		X		
11. HAZARDOUS MATERIALS/WASTE *(Use/storage/generation, solid waste, etc.)*		X		
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, flora, fauna, etc.)*		X		
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)*		X		
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*	X			
16. OTHER *(Potential impacts not addressed above.)*		X		

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17. [X] PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # A2.3.11 ; OR
[ ] PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS
These impacts are categorically excluded from further analysis based on CATEX #A2.3.11 which encompasses the granting of leases to use USAF-controlled property for actions similar to other actions which have been determined to have an insignificant impact in a similar setting as established in the Final Environmental Impact Statement (FEIS) for Griffiss AFB, dated Nov 95. Based on this analysis, the environmental impacts of the lease proceedings are not sufficiently adverse to human health and the environment to outweigh the other advantages to the community and the public interest of this lease, or to prevent the leasing of the property.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION *(Name and Grade)*	19a. SIGNATURE	19b. DATE
Michael F. McDermott, GS - 13	[signature]	7/27/00

Lease Restriction/ Disclosure or Notification Required?		***Environmental Factors Considered***
No	**Yes**	
		Environmental Restoration, Hazardous Substances, Petroleum
X		Hazardous Substances (Notification)
	X	Installation Restoration Program (IRP) and Areas of Concern
X		Medical/Biohazardous Wastes
X		Oil/Water Separators (OWSs)
	X	Unexploded Ordnance
X		Radioactive & Mixed Wastes
	X	Storage Tanks (UST/AST)
		Disclosure Factors/Resources:
	X	Asbestos
	X	Groundwater Quality
X		Drinking Water Quality
X		Indoor Air Quality
X		Lead-Based Paint (High-Priority Facilities)
	X	Lead-Based Paint (Other Facilities)
X		PCBs
X		Radon
		Other Factors:
X		Air Conformity/Air Permits
X		Energy (Utilities)
X		Flood plains
X		Hazardous Waste Management (By Lessee)
X		Historic Property (Archeological/Native American, Palentological)
X		OSHA (Occupational Safety & Health Administration)
X		Outdoor Air Quality
X		Prime/Unique Farmlands:
	X	Sanitary Sewer Systems (Wastewater)
X		Sensitive Habitat
X		Septic Tanks (Wastewater)
X		Solid Waste (Disposal of demolition materials)
X		Threatened and Endangered Species
X		Transportation
X		Wetlands

Attachment 5

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 131
REGULATOR COMMENTS

Attachment 6

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 131
AFBCA RESPONSE TO REGULATORY COMMENTS

1. The United States Environmental Protection Agency (USEPA, Region 2) submitted comments on **???????** in response to the **???????** consolidated draft of the subject FOSL. Their comments are addressed as follows:

   a. **General Comment:** AFBCA response -

   b. **Comment Number 1:** AFBCA response -

2. The New York State Department of Environmental Conservation (NYSDEC) submitted comments on **???????** in response to the **???????** consolidated draft of the subject FOSL. Their comments are addressed as follows:

   a. **Comment Number 1:** AFBCA response -

SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

Building 131

Griffiss Air Force Base (AFB), NY

CHAPTER 1 - PURPOSE OF THE SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

1.1 Introduction. This Supplemental Environmental Baseline Survey (SEBS) has been prepared to document the environmental condition of Building 131 and the associated property resulting from the storage, release, or disposal of hazardous substances and/or petroleum products and other environmental conditions over the area's history in order to establish a baseline for use by the United States Air Force (USAF) in making decisions concerning real property transactions. Changes in the environmental condition of the property since publication of the Griffiss AFB Basewide EBS are also documented in this SEBS.

1.2 Description:

The property consists of a total of approximately 3.29 acres. The property includes Building 131 (12,027 sf), the grass area north of the building (includes B/5893 - Outdoor Recreation Pavilion – 476 sf) and the paved parking areas to the south.

CHAPTER 2 - SURVEY METHODOLOGY

2.1 Approach and Rationale. The data used in preparing this SEBS were obtained from the Griffiss AFB Basewide EBS dated September 1994. The EBS was based on record searches, interviews, and visual site inspections (VSIs). The data and information contained in the EBS were prepared in accordance with Department of Defense (DoD) policies and guidance, as they pertain to the procedures for conducting an EBS. A confirmatory VSI was conducted and additional data was collected in July 2000, to verify the condition of the property.

Based on a review of the Basewide EBS and the VSI of the property, the building and surrounding grass area and pavements are considered Department of Defense Environmental Condition Category 2. Category 2 areas are those areas where only release or disposal of petroleum products has occurred.

The United States Environmental Protection Agency (USEPA) has concurred that only the release or disposal of petroleum products has occurred on the property.

2.1.1 Description of Documents Reviewed. A list of documentation reviewed is provided in the Griffiss AFB Basewide EBS. The primary types of studies or investigations included Installation Restoration Program (IRP) studies, USAF Base Realignment and Closure (BRAC) Cleanup Plan (April 1994), the 1993 USAF Real Property Inventory, underground storage tank/above ground storage tank (UST/AST) investigations, National Environmental Policy Act

documentation, the 1993 Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings Preliminary Report, and Federal, State, and local documentation.

2.1.2 Inspection of Properties Conducted. VSIs of the interior and exterior of the building and associated property were conducted during preparation of the Basewide EBS. A confirmatory VSI was conducted in July 2000 to document any changes in the property condition that had occurred since the initial Basewide EBS was published. The purpose of the VSI was to identify any stained soils, stressed vegetation, leachate seepages, unusual odors, friable insulation, peeling paint, etc., which might indicate environmental concern.

2.1.3 Personnel Interviews. Base personnel were contacted and interviewed, when possible, during the initial records search and VSI trips conducted for the Basewide EBS. Personnel interviewed during the Griffiss AFB Basewide EBS included representatives from civil engineering, real property, industrial engineering, and operations. The USAF Remedial Project Manager (RPM), who is responsible for initiating and managing projects that are necessary to evaluate and cleanup sites that have been contaminated with hazardous substances and waste from past base activities, was also interviewed.

CHAPTER 3 - FINDINGS FOR BUILDING 131

3.1 Environmental Setting. Griffiss AFB occupies approximately 3,540 acres in central Oneida County in upstate New York, in the City of Rome. A description of the area's climate, topography, hydrology, geology and utilities are contained in Section 3.2 of the Griffiss AFB Basewide EBS.

3.2 Property Categorization Resources

3.2.1 Environmental Factors. There are/was no record or evidence of medical/ biohazardous waste, ordnance, and radioactive waste releases on the subject property. No sensitive habitats or prime or unique farmland concerns are associated with the property. There are no threatened or endangered species, cultural resources, wetland or floodplain concerns associated with this property.

3.2.2 IRP and AOC Sites Identified to Date. There are two (2) AOC sites located within the subject property.

AOC/IRP Site ID	Site Name
ST-51	Building 100 - Hydrant FuelSystem
SD-52	On Base Groundwater Contamination

ST-51, Building 100 - Hydrant Fuel System, is a Source Removal AOC Site and an interim remedial action was performed during the summer of 1997 under project JREZ95-7050, FFA Source Removals. During the interim remedial action, the underground storage tank (UST-0131-02) was removed. Residual contamination will be addressed under project JREZ97-6042B,

Close Spill Sites. The spill number associated with this site is 9704490 (UST-0131-02). See Section 3.2.4 for further information.

SD-52, On Base Groundwater Contamination, is an AOC and the groundwater on the property was investigated and analytical results are presented in the Draft Final RI report dated December 1996. The Draft Final RI report indicated that no release, disposal, or migration of hazardous substances has occurred into the groundwater at the property.

All AOIs on the subject property have been classified as Covered Under Other Programs or No Further Study.

3.2.3 Underground and Aboveground Storage Tanks (USTs and ASTs)

There is one (1) former UST site located on the property and one (1) UST site located on adjacent property that may be impacting the property. There are/were no ASTs on the subject property.

Table 3.2.3
Storage Tanks

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-0131-01 Diesel	275	North of B/131	None	Removed 1989	1989
UST-0131-02 Isopropyl Alcohol	25,000	Northeast of B/131 property **	9704490 Open Being Investigated under 97-6042	Removed 1997 97-7050	1997

* All tanks listed as closed on the above table have been removed from the Griffiss AFB Major Oil Storage Facility lease.

** The tank was located northeast of the property, however, the contamination associated with the open spill may have migrated onto the property.

3.2.4 Petroleum, Oil and Lubricant Systems (POL)

There was one (1) former POL system that was located on the property. A portion of POL-5685-02 ran north along the east side of Otis Street and south and east of Building 131 (see IRP site ST-51). POL-5685-02 was deactivated in the 1980s, and sampled and closed in place under project JREZ89-0062 in 1993. There is one (1) open spill number 9704490 along the pipeline that is being investigated under project JREZ97-6042B, Close Petroleum Spill Sites. The area of the spill is located within the boundaries of the property (west side).

3.2.5 Wastewater

Building 131 is connected to a sanitary sewer.

3.2.6 Drywells (Wastewater)

There are two (2) drywells located on the property. DRY-0131-01 is located north of Building 131 and was associated with steam condensate drain collection. This drywell was classified as no further study as AOI 42. DRY-0131-02 is located within Building 131 and is associated with a floor drain located in the mechanical room. This drywell was also classified as no further study under AOI 42.

3.2.7 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven munitions related sites are identified to be present within the property. Clearing operations were performed in the summer of 1998 and documented in a final report dated 30 October 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property.

3.2.8 Historic Property

The draft Historic Structures Survey dated October 1995 was issued for review and revised on 14 July 1998. Comments on the revised draft were received from the NY State Office of Parks, Recreation and Historic Preservation on 9 September 1998. Based on the comments received, all buildings located within the property have been released from consideration

3.3 Disclosure Resources

3.3.1 Asbestos

The asbestos survey results of buildings on Griffiss AFB are presented in Appendix H, table H-1 of the Basewide EBS. Subsequent to the publication of the Basewide EBS, a comprehensive asbestos survey was performed in the fall of 1994. ACM was identified in Building 131. The asbestos observed during the July 2000 VSI generally appeared to be in good condition.

3.3.2 Lead-Based Paint (LBP)

LBP may be present in Building 131. The Air Force has classified this facility as a facility with a probability of having a LBP hazard because it was constructed prior to 1978 when the maximum allowable content of lead in paint was reduced. It is unlikely that LBP is present in Building 5893 since it was constructed in 1984.

CHAPTER 4 - FINDINGS FOR ADJACENT PROPERTIES

Adjacent Properties. Appendix A, Table A-1 in the Basewide EBS, identifies the properties that are adjacent to the subject property. Additional information on each site is provided in Appendix D of the Basewide EBS. There are five (5) IRP/AOC sites located on adjacent property that may impact the subject property.

AOC/IRP Site ID	Site Name
SS-08	Building 112-PCB Spill and Lab Drywell
SS-20	Tank Farms 1 and 3
ST-36	Building 110 Aqua System
ST-53	Building 133 Storage Vault
SS-58	Aqua Refueling System

SS-08, Building 112-PCB Spill and Lab Drywell, is an AOC site that has been identified as having soil contaminated with PCBs caused by the leaking of PCB-containing transformers formerly located in the southern section of the building. The site was recommended for a removal action by the USAF in its Draft Final RI report dated December 1996. The interim remedial action fieldwork has been completed under project JREZ97-7006, AOC Removals, and the closure report was forwarded to the regulators. Comments have been received from the USEPA. Closure of this site is pending final regulator approval of the closure report and the issuance of a Proposed Plan and Record of Decision. The remedial action consisted of surface and subsurface soil removal on the exterior south and west sides of the building with disposal of the PCB-contaminated soil off site. Groundwater at this site has not been impacted. Three USTs were also associated with this site. The tanks were removed and closed in 1993.

SS-20, Tank Farms 1 and 3, is a Source Removal AOC site (NYSDEC Spill Number 9111733). Further investigation will occur to address residual petroleum contamination under project JREZ97-6042, Close Spill Sites.

ST-36, Building 110 Aqua Refueling System, is a Source Removal AOC Site located at Building 110 property to the west of the leased property. B/110 served as a pumphouse and fuel storage station along the fuel distribution system. The Aqua System consisting of an 8-inch pipe network that provided AVGAS and JP-4 fuel to various portions of the flight line and aprons. A portion of the 8-inch pipe network is located on the property. An interim removal action (Project JREZ89-0062) was completed in 1993. The removal action consisted of the cleaning, sampling and closure of the Aqua System fuel lines, removal of four (4) 25,000-gallon fuel storage tanks, and the removal of associated fuel-contaminated soils. NYSDEC Spill Number 8603763 is

associated with the four (4) storage tanks which were located west of the property. Further investigation at this site is scheduled for 2000 under project JREZ97-6042, Close Spill Sites.

SS-53, Building 133 Storage Vault, is an AOC site located east of the property that was recommended for a removal action for an oil/water separator (OWS-133) and associated UST-0133-01 and contaminated soils by the Air Force in its Draft Final RI report dated December 1996. The OWS (NYSDEC Spill Number 9201395) and the UST (NYSDEC Spill Number 9702171) were removed in 1997 under project JREZ96-0020, Close Oil Water Separators. Additional soil investigation for the open spill numbers is being conducted under project JREZ96-0020. Additional groundwater investigations were performed under the Supplemental Investigations program. The analytical results from these samples were made available to the regulators in November 1997. Groundwater monitoring is currently being performed in an effort to close the spill numbers.

SS-58, Aqua Refueling System, is an IRP site located near Building 101 property to the west of the property. SS-58 served as an Aqua Refueling System Pipeline consisting of 8,480 linear feet of steel pipe network that provided AVGAS and JP-4 fuel to various portions of the apron surrounding Building 101 and to Building 112. A closure action (project JREZ96-7005, Close Aqua System) has been completed. The closure action consisted of the cleaning, sampling and closure of the Aqua System fuel lines and the removal of a 12,000-gallon fuel salvage tank. There are no spill numbers associated with this site.

CHAPTER 5 - PROPERTY CATEGORY

5.1 Conclusions: Based on a review of the Basewide EBS and the VSI of the property, the building and surrounding grass area and pavements are considered Department of Defense Environmental Condition Category 2. Category 2 areas are those areas where only release or disposal of petroleum products has occurred.

The United States Environmental Protection Agency (USEPA) has concurred that only the release or disposal of petroleum products has occurred on the property.

The identified IRP/AOC sites within and adjacent to the property are not expected to pose a concern to the leasing of the property.

CHAPTER 6 - CERTIFICATION

I certify that the property conditions stated in this report are based on a thorough review of available records, visual inspections, and sampling and analysis as noted, and are true and correct to the best of my knowledge and belief.

MICHAEL F. McDERMOTT
BRAC Environmental Coordinator
AFBCA/DA - Griffiss

7/27/00
Date

Attachments:
1. Table H-1 (EBS)
2. Comprehensive Asbestos Survey

Bldg	Location	Quantity	Building Element	Inspection Date	Last Inspection	Number	Result	Comments
120	Room 10		Floor Tile	91/06/11		CE910330	ND	12' LIGHT GREEN
120	Warehouse Office		Steam Pipe Fitting	91/29/05		CE910294	70	CHRYSOTILE. PIPE INSULATION IS FIBERGLASS.
123	Outside Chiller		Cooling Fins	90/06/26		GM900176	40	
123	Interior Mechanical Room		Floor Tile	90/07/26		GM900173	3	9" GREY
123	Interior Mechanical Room		Pipe Joint Insulation	90/07/26		GM900174	ND	
123	Outside Chiller		Bottom Side Panels	90/07/26		GM900175	30	CORREGATED TRANSITE PANELS
123	Main Mech Rm		Main Steam Line Insulation	90/08/01		GM900182	82	
123	Main Mech Rm		Chill Water Tank Insulation	90/08/01		GM900183	25	
123	Main Mech Rm		Main Steam Line Elbow	90/08/01		GM900184	ND	
123	Main Mech Rm		Hot Water Supply Insulation	90/08/01		GM900185	ND	
123	Main STM Room		Cold Water Feed Line	90/08/01		GM900186	15	
123	Boiler Room		Chill Water Elbow Insulation	90/10/24		GM900225	25	
123	Cooling Tower		Cooling Fins	91/01/18		CE910061	50	OUTSIDE OF BUILDING, EAST SIDE.
123	Mechanical Room		Water Line Fitting	91/01/22		CE910062	ND	HOT WATER RETURN LINE TEE.
123	Large PMEL Lab		Sheet Vinyl Flooring	92/04/09		CE920143	28	CHRYSOTILE
123	Large PMEL Lab		Floor Tile	92/04/27		CE920158	5.6	CHRYSOTILE, 12" X 12" TILE WHITE BENEATH SHEET VINYL.
126	Throughout Building		Floor Tile	92/07/13		CE920221	ND	12" X 12" MOTTLED BROWN
127	Carpenter Shop		Pipe Insulation	87/08/06		GM870293	35	Poor condition, NW corner rear entrance. 35% Chrysotile, 15% Amosite
131	Kitchen Pantry		Steam Line Insulation	87/11/19		GM870570	50	Amosite. All asbestos removed in Jan 1989.
131	A/H room		Pipe Insulation	87/11/19		GM870571	20	Chrysotile. All asbestos removed in Jan 1989.
131	South East Room		Unknown	89/03/20		GM890031	ND	
131	A-21 Briefing Room		Floor Tile	90/03/22		GM900089	3	ROOM CONTAINS 3 DIFFERENT TILES. ALL CONTAIN ASBESTOS. CARPERTING HAS BEEN LAID OVER THE TILES.
138	Weather Radar Support		Floor Tile	91/05/07		CE910247	ND	12" WHITE W/BLACK STREAKS.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 131 ADMINISTRATIVE

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
AUDIT	Floor:01 Auditorium	1300 sqft	3						Partially Inaccessible Space.
	001 Wall - Sheetrock	2900 sqft		1	5	1	1	Negative	
	001 Ceiling - Sheetrock	1200 sqft		1	2	1	0	Negative	Wall And Ceiling Material Considered Identical. Above Ceiling.
	004 Ceiling - Glued Tile	1200 sqft		1	2	3	0	Negative	12" X 12" White With Large Holes. Above Ceiling.
	005 Ceiling Mastic	1200 sqft	7	1	2	0	0	Positive	Above Ceiling.
	AAA Vinyl Composite Tile Floor	1200 sqft	7	1	2	0	0	Assmd Pos.	12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern. Under Carpet.
	AAA Ceiling Tile - Lay In	928 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White With Indents.
	AAA Ceiling Tile - Lay In	116 sqft	3	1	2	3	0	Assmd Pos.	2' X 4' White Fissured Pattern.
	AAA Door Core Insulation - Fire Do	21 sqft	4	1	2	1	0	Assmd Pos.	Paper In Door Was Not Able To Be Sampled.
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
EXT	Floor:0X Exterior	6900 sqft	8						
	009 Wall - Coating Unspecified	6000 sqft		1	5	0	0	Negative	Dryvit.
MECH	Floor:01 Mechanical Room	256 sqft	7						
	001 Wall - Sheetrock	619 sqft		1	5	1	0	Negative	
	001 Ceiling - Sheetrock	256 sqft		1	2	1	0	Negative	Wall And Ceiling Material Considered Identical.
	003 Mastic Floor	104 sqft	7	1	8	0	0	Positive	
	010 Domestic Water Pipe Insulation	6 ft		1	2	1	0	Negative	
	AAA Vinyl Composite Tile Floor	152 sqft	7	1	8	0	0	Assmd Pos.	12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.'
	NNN Hvac - Flexible Duct/flex Duct	-		-	-	-	-	Assmd Neg.	Rubber/vinyl Material.
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.

Printed on 07/12/00

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 131 ADMINISTRATIVE

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
HEAT	Floor:0B Mechanical Room	256 sqft	2						
	008 Piping - Drain System Unspecif	1 ft		2	5	1	0	Negative	Tar Paper Remaining In Wall On Pipe.
	AAA Piping - Steam	1 ft	2	1	5	6	0	Assmd Pos.	Insulation Remaining In Wall Unable To Be Sampled.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Mech Equip. - Heat Exchanger	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
OFF1	Floor:01 Office	5000 sqft	2						
	001 Wall - Sheetrock	17000 sqft		1	5	1	0	Negative	Material Consists Of 2 Layers In Some Rooms.
	001 Ceiling - Sheetrock	4500 sqft		1	2	1	0	Negative	Wall And Ceiling Material Considered Identical. Partially Above Ceiling.
	002 Ceiling - Plaster	453 sqft		2	2	0	0	Negative	Above Ceiling.
	004 Ceiling - Glued Tile	384 sqft		1	2	3	0	Negative	12" X 12" White With Large Holes. Above Ceiling.
	005 Ceiling Mastic	1800 sqft	7	1	2	0	0	Positive	Above Ceiling.
	006 Ceiling - Glued Tile	1400 sqft		1	2	3	0	Negative	12" X 12" White With Small Pinholes. Above Ceiling.
	007 Vinyl Composite Sheet Floor	21 sqft		1	8	0	0	Negative	White With Tan Swirls.
	AAA Vinyl Composite Tile Floor	5000 sqft	7	1	2	0	0	Assmd Pos.	12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern. Under Carpet.
	AAA Ceiling Tile - Lay In	366 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White Fissured Pattern.
	AAA Ceiling Tile - Lay In	1700 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White With Indents.
	AAA Ceiling Tile - Lay In	468 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White Rough Texture.
	AAA Ceiling Tile - Lay In	2100 sqft	2	1	2	3	0	Assmd Pos.	2' X 4' White Fissured Pattern.
	NNN Wall - Sheetrock	-		-	-	-	-	Assmd Neg.	Ultra-wall/untaped Sheetrock, Non-asbestos Containing Material. Over Wall Sheetrock-samples Numbered 1.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.,Above Ceiling.
	NNN Hvac - Flexible Duct/flex Duct	-		-	-	-	-	Assmd Neg.	Above Ceiling. Rubber/vinyl Material.
OFF2	Floor:02 Office	3400 sqft	3						Above Sheetrock Ceiling Was Inaccessible.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 131 ADMINISTRATIVE

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
	001 Wall - Sheetrock	12000 sqft		1	5	1	0	Negative	Material Consists Of 2 Layers In Some Rooms.
	001 Ceiling - Sheetrock	3400 sqft		1	2	1	0	Negative	Wall And Ceiling Material Considered Identical. Above Ceiling.
	AAA Ceiling Tile - Lay In	1600 sqft	2	1	2	3	0	Assmd Pos.	2' X 4' White Fissured Pattern.
	AAA Ceiling Tile - Lay In	432 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White Fissured Pattern.
	AAA Ceiling Tile - Lay In	1400 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White With Indents.
	AAA Vinyl Composite Tile Floor	3400 sqft	7	1	2	0	0	Assmd Pos.	12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern. Under Carpet.
ROOF1	Floor:1R Roof	192 sqft	8						No Suspected Asbestos Containing Material In Space.
ROOF2	Floor:1R Roof	144 sqft	8						No Suspected Asbestos Containing Material In Space.
ROOF3	Floor:1R Roof	168 sqft	8						No Suspected Asbestos Containing Material In Space.
ROOF4	Floor:2R Roof	1200 sqft	7						
	AAA Asphalt And Gravel	1200 sqft	7	1	8	0	0	Assmd Pos.	
ROOF5	Floor:2R Roof	1700 sqft	7						
	AAA Asphalt And Gravel	1700 sqft	7	1	8	0	0	Assmd Pos.	
ROOF6	Floor:3R Roof	4600 sqft	7						
	AAA Asphalt And Gravel	4600 sqft	7	1	8	0	0	Assmd Pos.	
TOIL1	Floor:01 Toilet Room	364 sqft	2						Pipe Chase In Space Was Inaccessible.
	001 Wall - Sheetrock	1200 sqft		1	5	1	0	Negative	
	001 Ceiling - Sheetrock	40 sqft		1	2	1	0	Negative	Wall And Ceiling Material Considered Identical. Above Ceiling.
	002 Ceiling - Plaster	307 sqft		1	2	0	0	Negative	Wall And Ceiling Material Considered Identical. Above Ceiling.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 131 ADMINISTRATIVE

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
	002 Wall - Plaster	1200 sqft		1	2	0	0	Negative	Behind Wall.
	AAA Vinyl Composite Tile Floor	40 sqft	7	1	8	0	0	Assmd Pos.	Partially Under Carpet. 12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern.
	AAA Ceiling Tile - Lay In	324 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White With Indents.
	AAA Ceiling Tile - Lay In	16 sqft	3	1	2	3	0	Assmd Pos.	2' X 4' White Fissured Pattern.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Above Ceiling. Fiberglass, Non-asbestos Containing.
	NNN Hvac - Flexible Duct/flex Duct	-		-	-	-	-	Assmd Neg.	Above Ceiling. Rubber/vinyl Material.
	NNN Duct	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Above Ceiling.
TOIL2	Floor:02 Toilet Room	272 sqft	4						Pipe Chase In Space Was Inaccessible.
	001 Wall - Sheetrock	938 sqft		1	5	1	0	Negative	
	002 Wall - Plaster	938 sqft		1	2	0	0	Negative	Behind Wall.
	002 Ceiling - Plaster	272 sqft		1	2	0	0	Negative	Above Ceiling. Wall And Ceiling Material Considered Identical.
	AAA Ceiling Tile - Lay In	252 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White With Indents.
	AAA Ceiling Tile - Lay In	20 sqft	3	1	2	3	0	Assmd Pos.	2' X 2' White Fissured Pattern.
	AAA Vinyl Composite Tile Floor	20 sqft	7	1	2	0	0	Assmd Pos.	12" X 12" Tan Mottled; 9" X 9" Black; 9" X 9" Tan; 12" X 12" Chip Board Pattern. Under Carpet.

From: Jonathan Greco
To: :internet:mmcdermo@afbda1.hq.af.mil
Date: 7/25/00 2:17PM
Subject: RAB Charter

Mike:

The view the Department is currently taking on RABs is that no signature will be required for our participation. The feeling is that we have a negotiated Interagency Agreement, and do not wish to confuse matters by signing another document which may conflict with it. As in the past, please include me on all mailings and I will attend and participate in the meetings. Let me know if you have any problems.

CC: Chen, Marsden; Pocze, Doug

J. Greco

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

19 July 2000

LETTER FOR See Attached Distribution List

FROM Michael F. McDermott
Restoration Advisory Board Co-Chairman
BRAC Environmental Coordinator
AFBCA/DA-Griffiss
153 Brooks Road
Rome, New York 13441-4105

TG, What about the NYSDEC clause about retaining its rights? It is not included. MFM 7/24/00

SUBJECT Draft Revised Charter of the Griffiss Air Force Base Installation Restoration Program Restoration Advisory Board (RAB)

Attached is a copy of the Draft Revised Charter for the Restoration Advisory Board.

The document has not been altered since it was distributed prior to the 6 June 2000 RAB meeting.

Please provide any comments you may have by 21 August 2000.

If you have any questions, feel free to contact me at 330-2275.

MICHAEL F. MC DERMOTT
BRAC Environmental Coordinator

cc Anna Lemaire, Site Manager

ATTACHMENTS 1. Distribution List
2. Draft Charter

Distribution List: Restoration Advisory Board

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Environmental Coordinator
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Mayor of Rome
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Robert Comis
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Gerald Fiorini, Chairman
Oneida County Board of Legislators
800 Park Avenue
Utica, New York 13501

Carol R. Fitzgerald, Executive Director
Cornell Cooperative Extension of Oneida Co.
121 Second St
Oriskany, New York 13424

DRAFT

CHARTER OF THE GRIFFISS AIR FORCE BASE INSTALLATION RESTORATION PROGRAM RESTORATION ADVISORY BOARD

JG, What does this say? MLC 7/24/00

I. Name

This organization shall be known as the Griffiss Air Force Base (GAFB) Installation Restoration Program (IRP) Restoration Advisory Board (RAB). The GAFB RAB will fulfil all requirements of 10 USC Sec 2705 (c) for Technical Review committees at Department of Defense installations.

II. Purpose

A. Facilitate communication and coordination among the members of the RAB in relation to response actions taken by GAFB under the IRP.

B. Provide an opportunity for members to comment on actions and proposed actions taken by GAFB under the IRP.

C. Facilitate regulatory and public participation consistent with applicable laws.

III. Authority

The basis and authority for this charter is the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), particularly Sections 120(a), 120(f), and 10 USC 2705, enacted by Section 211 of CERCLA.

IV. Members

What is this? MLC 7/24/00

A. The RAB shall consist of representatives from the following organizations:

Air Force Base Conversion Agency (AFBCA)
Griffiss Local Development Corporation (GLDC)
Oneida County Environmental Management & Water Quality Council
Rome Floyd Residents Association
Environmental Protection Agency (EPA) Region 2
New York State Department of Environmental Conservation
New York State Department of Health
Town of Floyd
Oneida County Legislature
City of Rome
NY Rivers United
Base Transition Coordinator
*Cornell Cooperative Extension of Oneida County**

*possible addition

IV(cont'd) B. Members shall serve without compensation. All expenses incident to travel and review inputs (with the exception of those review inputs funded through the Technical Assistance for Public Participation Program (TAPP)) shall be borne by the respective member's organization.

C. When a member of the RAB resigns, that member will be replaced by a representative of the same organization.

D. New members may be added to the RAB to represent groups not currently represented on the RAB. Nominations will be reviewed and approved by the RAB.

V. Structure and Operating Procedures

A. The BRAC Environmental Coordinator of the AFBCA will serve as a co-chairperson of the RAB, with the additional co-chairperson coming from the community members of the RAB.

B. Each member will submit, in writing, to the RAB chair, the names of each primary and alternate representative. Each member may provide technical or administrative support personnel as necessary.

C. Meetings will be held on a quarterly basis or as otherwise agreed upon by the RAB members. Meetings will be held at or near GAFB.

D. The AFBCA Chair will be responsible for coordinating and disseminating meeting agendas. Approval of prior meeting minutes will be an agenda item for each meeting.

E. The AFBCA Chair will be responsible for recording and disseminating the meeting minutes. Comments on the minutes may be provided to the Chair.

F. The AFBCA Chair will send copies of all documents requiring public comment to the members or notify the members of where they may obtain the documents for review. The members should submit written comments on the subject documents within the time frame specified in the document. Members are responsible for assuring that comments reflect the position of their constituency. Members are responsible for accurately representing the status of information in draft or preliminary documents provided for their review.

G. Action items will be established at each RAB meeting. Responses to comments or requests for information will be provided in writing. All action items will be listed in the meeting minutes of the meeting at which they are assigned. Progress on each action item will be briefed at each RAB meeting. When an action item is closed, the written response will be included in the meeting minutes.

V.(cont'd) H. Final documents, member's comments reviewed by the RAB, responses to action items, and RAB meeting minutes will become a part of the Administrative Record. The Administrative Record will be available for public review at the Air Force Base Conversion Agency.

I. The RAB, in addition to facilitating the exchange of information, will attempt to resolve through consensus all issues and problems that may arise during the course of IRP activities. When dissenting opinions exist, they will be noted in the meeting minutes.

VI. Effective Date and Modification

A. The effective date of this Charter is the date of the last signature.

B. This Charter may be amended by mutual consent of all members. Such amendments must be in writing and signed by all members.

VII. Termination

The provisions of the Charter shall be satisfied and considered complete when all members agree in writing to terminate the RAB.

IT IS SO AGREED:

_____	_____
Air Force Base Conversion Agency	Date
_____	_____
Griffiss Local Development Corporation	Date
_____	_____
Oneida County Environmental Management & Water Quality Council	Date
_____	___ _____
City of Rome	Date
_____	_____
Town of Floyd	Date
_____	_____
Oneida County Legislature	Date

_____ Rome-Floyd Residents Association	_____ Date
_____ NYS Department of Environmental Conservation	_____ Date
_____ NYS Department of Health	_____ Date
_____ US Environmental Protection Agency: Region 2	_____ Date
_____ New York Rivers United	_____ Date
_____ Base Transition Coordinator	_____ Date
_____ Cornell Cooperative Extension of Oneida County	_____ Date

TO: Mr. Douglas Pocze, USEPA
United States Environmental Protection Agency
Federal Facilities Section
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New York, NY 10007-1866

PHONE: 212-637-4432 FAX: 212-637-4360

Mr. Jonathan Creco
New York State Department of Environmental Conservation
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PHONE: 518-457 3976 FAX: 518-457 8990

FROM: Michael McDermott
Air Force Base Conversion Agency
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

PHONE: 315-330 2275 FAX: 315-330-4062

DATE: 25 Jul 00
No. of Pages Including Cover Sheet: 7

MESSAGE: Attached is updated information.

Concertgoers Weren't Told They Were At Toxic Waste Site

Former Griffiss Air Force Base designated in federal Superfund program.

Staff Writer Brian Hiatt reports:

The original Woodstock, held in the bucolic setting of an upstate New York farm, promised a return to nature -- a pathway back to an Eden unpolluted by the modern world.

Thirty years later, Woodstock '99 was held at a toxic waste site.

The former Griffiss Air Force Base in Rome, N.Y., where the three-day festival was held, has been designated since 1987 as one of the worst hazardous waste sites in the country by the Environmental Protection Agency's Superfund program, which works to clean up such sites.

Griffiss' contaminated areas, which include groundwater and soil contaminated with toxic chemicals, were outside the concert perimeter, and ever environmental activist concede that festivalgoers likely faced little or no health risk from them. (**Click Here** for a Woodstock '99 map).

Still, they say, Woodstock promoters and local officials should have informed concertgoers of the risks they were playing with to carry out a concert on the site.

"The question to ask as to why this wasn't done or why it wasn't should have been done," said [illegible] Speight, a spokesman for the New York State Department of Environmental Conservation, which, in conjunction with the EPA, approved the use of the base for the concert.

The decision to [illegible] would have the responsibility [illegible] or the

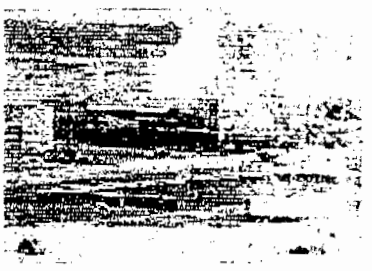


Photo by Frank Micelotta/ImageDirect

[illegible] Woodstock festival organizers. The polluted areas of the former Air Force base weren't used

Articles

Woodstock IV: More than the Naked Truth

Woodstock '99 Coming (227)

Q&A: John Sinclair & Lee Lang (227)

Woodstock Out (227)

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the responsibility of either the Air Force or the development company or the promoters who were responsible for putting on the concert," Meicht said.

Force base weren't used.

SONY
The VAIO SR
[illegible]
Under $1[illegible].
VAIO

Base Once Housed Weapons

Air Force spokesperson Carl Sahre said it was up to the promoters to decide whether to inform concertgoers of the base's status. Oneida County Executive Ralph Eannace, who leads the development company that helped bring Woodstock '99 to Griffiss, could not be reached for comment last week.

"There were probably people crossing fences [to polluted areas]." — Bruce Carpenter, environmentalist

Woodstock co-promoter Michael Lang said via e-mail last week, "We were told that hundreds of thousands of dollars have been poured into the [site] since 1984 to rectify the situation. We were assured the waste issue was already mediated and the concertgoers were not in danger and did not come in contact with any areas that were questionable."

Pollutants at the site have included low-level radioactive waste, according to government documents. In the past, Griffiss, which was decommissioned in 1995, housed nuclear weapons.



Photo by Erik Oosterwal

Environmentalists said concertgoers should have been told the former Air Force base was a Superfund site.

The cleanup at Griffiss is ongoing, and hazardous waste is still on the base, officials said. There was no known toxic waste on the grounds of the concert when it was held, according to officials.

Before the concert, inspectors found [illegible] spots in the 1,200-acre area that were accessible to concertgoers were polluted. They were cleaned up for the festival, according to Meicht and Sahre.

Before that cleanup, the soil in an area of Woodstock's campgrounds was polluted with lead and low levels of PCBs, Meicht said. PCBs (polychlorinated biphenyls) are toxic chemicals that have been shown to cause cancer in animal studies.

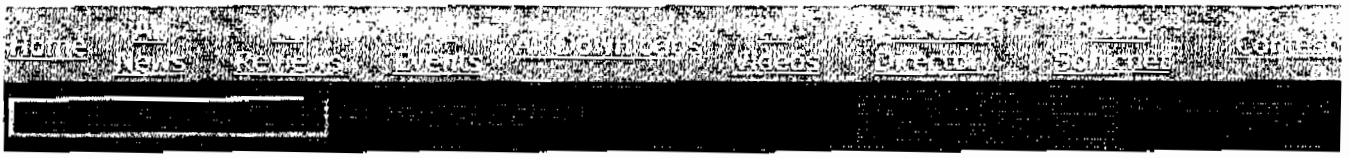
The soil was dug up and replaced before the concert.

In addition, one of the festival's parking areas was polluted with petroleum. That area, too, was cleaned, Meicht said.

Before the concert, Woodstock planners said [illegible] fencing would keep concertgoers away from contaminated sites.

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Comments & Questions: feedback@sonicnet.
advertising informa

Concertgoers Weren't Told They Were At Toxic Waste Site

Former Griffiss Air Force Base designated in federal Superfund program.

"A number of areas adjacent to, but not part of, the festival site have been adversely affected by the past use of the airfield as an air base and have been contaminated to varying degrees by solvents and other materials commonly used in the operation of an air base," concert planners wrote in an environmental impact statement submitted to the Oneida County Health Department (**Click Here** for document). "All of these areas, including the creek, will be located outside the fence, separating the festival attendees and employees from any contact with these materials."

"There were probably people crossing fences [to polluted areas]," said Bruce Carpenter, head of the Rome environmental group New York Rivers United.

But Lang said in his e-mail, "No fences of the surrounding questionable areas were penetrated."

In a "Finding of Suitability To Lease" document prepared before the festival, Air Force Base Conversion Agency Director Albert F. Lowas wrote, "The environmental impacts of proceeding with the [concert] are not sufficiently adverse to human health and the environment to out-weigh the other advantages to the community and the public interest of this lease." (**Click here** to read document.)



Photo by Frank Micelotta/ImageDirect

The site had been used for public gatherings before Woodstock, but none had nearly as big a crowd.

Lowas compared Woodstock "to air shows, golf tournaments, home shows, and the like" that had previously been held at Griffiss.

But Douglas M. Pocze, an EPA remedial project manager, challenged that comparison

Video
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project manager, challenged that comparison in an official response.

"Have other events of this magnitude been held at Griffiss?" Pocze asked. "Please list such other shows or events the Air Force has conducted at Griffiss involving 250,000 people remaining at the base for several days?" (**Click here** to read document.)

"The areas ... that might have been accessible — there's no reason for concern if anyone had entered them." — Carl Sahre, Air Force spokesperson

The Air Force responded by pointing out a 1991 open house that brought in 112,000 visitors — a little more than half the number that came to Woodstock '99. The open house lasted one day and was held on a parcel of land one-tenth the size of the Woodstock concert grounds.

Paul Gallo, a 22-year-old Woodstock attendee from Long Island, N.Y., said earlier this month that he hadn't had any idea that Griffiss was polluted.

"I never heard [about] that. Oh my God," he said adding that he and other attendees should have been warned. "Some people are stupid, and they wander off."



Photo by ImageDirect

Co-promoter Michael Lang, right, pictured with partner John Scher at a news conference, has said they "were assured ... the concertgoers were not in danger."

'No Reason For Concern'

Carpenter said concertgoers should have been told: "Griffiss Air Force Base has been heavily polluted — those areas will be fenced off. Stay away from them."

Even if concertgoers found their way onto areas on the base that included polluted soil, it is unlikely they would have been affected by toxic chemicals, according to the Air Force's Sahre.

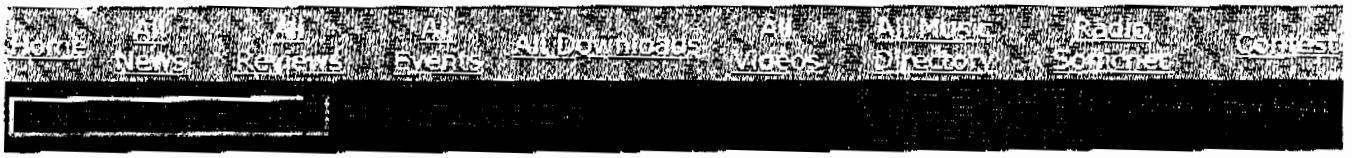
"The areas around that might have been accessible — there's no reason for concern if anyone had entered them. Contaminant levels are low," he said, adding that "prolonged direct exposure" would be needed in order for chemicals to cause harm.

While agreeing that risks were low, activists said local officials and promoters should have acknowledged environmental issues before and during the festival.

"There probably should have been more discussion," said Lenny Siegel, head of the Center for Public Environmental Oversight, a San Francisco watchdog group

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DATE: 20 Jul 00
No. of Pages Including Cover Sheet: 8

Attached is Woodstock information.

USA Today 7/17/00

By Rose Pfanner, Reuters

MacRae Junction star dies of cancer.

the audio version of the fourth book in J.K. Rowling's series, which was released alongside the hardcover July 8, has become the fastest-selling book [illegible] sold 100,000 copies on cassette and CD in the first week.

Woodstock's unforgettable fires

An investigation into the looting and fires that ended last year's Woodstock music festival pins much of the blame on the show's promoters and local officials in Rome, N.Y. The five-part series *Playing With Fire: The Untold Story of Woodstock '99* will be published on the Web site Sonicnet.com beginning Friday, the festival's first anniversary. Among the findings:

- The festival's location is one of the worst hazardous-waste sites in the country.
- City officials ignored overflowing toilets and garbage heaps, motivated by a $500,000 bonus clause.
- Security guards took part in the riots and sold stolen $150 admission tickets for $20.

[illegible] in adoption

Following in the footsteps of actress Sharon Stone, who recently adopted a boy, pop singer Cher, 54, says she is considering adopting a baby daughter. "When I heard about Sharon, I knew what's been missing in my life," she told Britain's *Sunday Mirror*. "She is so happy, and I am so envious." Cher has two adult children, Chastity, 31, and Elijah Blue, 23. She also has no shortage of fans. More than 500 diva worshipers came to Chicago for the past weekend's Cher Convention 2000. Cher was a no-show.

Oops! Britney cancels sold-out Denver show

This town's stage isn't big enough for Britney Spears. The pop princess has canceled her sold-out concert July 26 at Denver's Red Rocks Amphitheater because her elaborate set is too big for the stage. About 9,000 tickets sold in less than an hour in February.

How 'The Grinch' will go postal

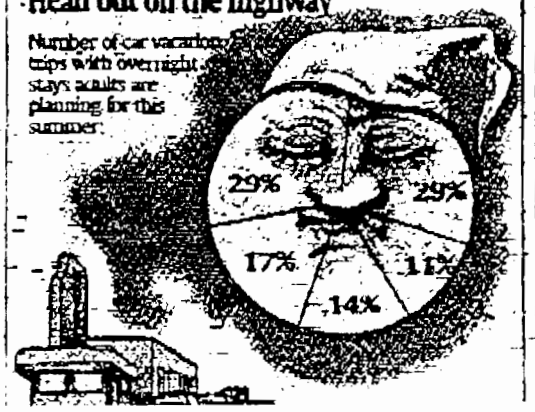
The U.S. Postal Service is getting into movie marketing. In a deal with Universal Pictures, post offices across the country will advertise the Nov. 17 release of Jim Carrey's *How the Grinch Stole Christmas*. Post offices will be decorated with movie posters, and postal clerks will shill film merchandise. Not even your mail is safe: Letters and packages will be canceled with a stamp that reads "Happy Wholidays."

By César G. Soriano-from staff and wire reports
E-mail Lifeline@usatoday.com

USA TODAY Snapshots®

Head out on the highway

Number of car vacation trips with overnight stays adults are planning for this summer:





Cover story

By Marla Puente
USA TODAY

No man is a hero to his valet, as [illegible] used to say, but his tailor [illegible] mention the guy who [illegible] cowboy. So who better than tailors and [illegible] others, haberdashers, style [illegible] carping fashionistas — to dish a little [illegible] presidential candidates, some dinner [illegible] blue. Suits, that is.

Voters have heard plenty about the [illegible] strategies, policies and 10-point plans [illegible] didates and style. Do they have [illegible]

Are they cut from [illegible]? A man's [illegible] candidate can show his clothing [illegible] doesn't care? Maybe. It's his political [illegible]

We know, we know. The subject [illegible] say, saving Social Security [illegible] guy who's running Pakistan. On the [illegible] lows who want to be president [illegible] rooms everywhere for the next four [illegible] is going to be hanging around [illegible] have to look at them, maybe we should [illegible] them.

We have trolled the style waters for [illegible] swers, fishing for a consensus [illegible] clothing for clues about personality and politics can say this:

- Republican George W. Bush [illegible] but he isn't really a cowboy [illegible] Brothers kind of guy [illegible] conservative dressing. And [illegible] his college days, when, by all accounts, he was [illegible]

National adop

And a spending [illegible] could limit its [illegible] in placing children

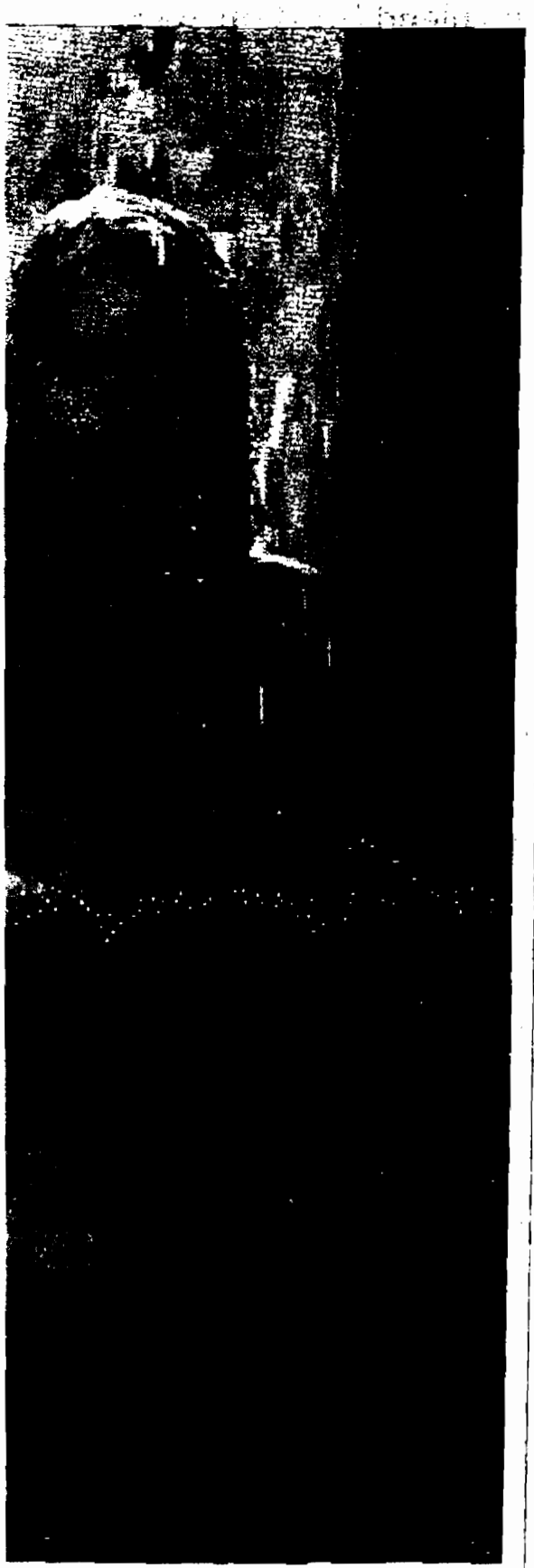
By Marilyn Elias
USA TODAY

A Web site that features U.S. children awaiting adoption through public agencies won't be up until April 2002, seven months later than expected. And the government has cut the site's planned funding by nearly a third, USA TODAY has learned.

"It's not possible to do as extensive a site as we'd hoped for with this money," says Carolyn Johnson, [illegible]

[illegible] the [illegible] said the [illegible] adopt [illegible] of a [illegible] length of [illegible] [illegible] [illegible] Preside [illegible] to [illegible] find [illegible] In response [illegible] [illegible] site. It [illegible] start-up [illegible] million [illegible] But [illegible] tion. Sh [illegible]

ng beauty



day, is the Alfred Hitchcock-influenced "What Lies Beneath."



BACK TO THE GARDEN? An Internet report assesses blame for the chaos, including fires and alleged sexual assaults, at Woodstock '99.

Woodstock's bad vibes laid on organizers

By DAVID HINCKLEY
DAILY NEWS FEATURE WRITER

A team of Internet music journalists is stirring up the ashes of Woodstock '99 with an investigative report that Woodstock co-producer John Scher charges is so biased he is asking for equal time on the Net to respond.

"Playing With Fire," a five-part series in what it calls serious miscalculations and (Woodstock organizers and local officials, will be posted daily starting Friday and then continuing next Monday-Thursday on Sonicnet.com, an MTV site that's an Internet sister of MTV and VH1.

Woodstock '99, held last July at the former Griffiss Air Force Base in Rome, N.Y., ended with a flurry of lawlessness when some festivalgoers set fire to vehicles and equipment. There were also eight allegations of rape.

Sonicnet's report will allege, among other things,

- Concertgoers were never informed Griffiss is a Superfund site, "one of the worst hazardous waste dumps in the country."
- "Hundreds" of concertgoers were injured during highly charged sets by Limp Bizkit, Rage Against the Machine and Metallica, after the medical staff warned it was dangerous to have these bands play back-to-back.
- Some security guards got answers for their licensing test in advance, and some guards rioted.
- Local officials failed to closely monitor either the preparations, which Sonicnet says were lax, or the concert itself, where garbage was scattered around and toilets overflowed.
- The investigation into the rapes and other, lesser reported crimes has hit an apparent dead end.

Scher says he and co-producer Michael Lang "tried to cooperate [with the Sonicnet team] and spent many hours talking with them."

But, he says, "it became overwhelmingly obvious there was no balance whatsoever ... they had a clear agenda. While they raised some legitimate issues, their lack of fair and unbiased reporting made it impossible for us to communicate our position."

He says he's asked "to go online and chat directly with those who attended the festival. Hopefully, Sonicnet will have enough journalistic integrity to provide us with that opportunity."

Scher has said mistakes were made and that rape is indefensible. He has also said most festivalgoers had a great weekend, and the image of general chaos was exaggerated.

While Sonicnet says many of its findings are the exclusive result of a year-long probe by writers Chris Nelson and Brian Hiatt, some of these charges have surfaced before. MTV was particularly critical in the aftermath of Woodstock '99 last summer.

DAILY NEWS Wednesday, July 19, 2000

P311

NEW YORK POST, WEDNESDAY, JULY 19, 2000



RED-HOT TIME: Woodstock '99 concertgoers tear down walls and set fires at last summer's music festival. An upcoming report will say the promoters ignored security warnings. N.Y. Post: Jim Alcorn

PROBE PINS BLAME ON W'STOCK PROMOTERS

By KENNETH LOVETT
Post Correspondent

ALBANY — Much of the blame for the trouble-plagued Woodstock '99 festival lies with the promoters, according to a music-news report coming out Friday after a yearlong probe.

Once synonymous with peace, love and understanding, Woodstock's image took a beating when last year's festival, held at the former Griffis Air Force Base in upstate Rome, degenerated into rape, arson and vandalism.

And while promoters Michael Lang and John Scher blamed unruly fans, the new report says the promoters failed to heed warnings of disaster before and during the three-day festival last July.

And, the report says, most local officials turned a blind eye to the problems, focusing instead on the potential half-billion-dollar windfall the festival would bring.

The findings — to be released as a five-day series that will begin online Friday — are the result of a one-year investigation by Sonicnet.com, a music-news site that is part of the Web arm of MTV Networks.

Among the allegations:

■ Scher and Lang hired an incompetent security force, some of whom might have sexually harassed women and taken part in th[illegible] at the end of the fest.

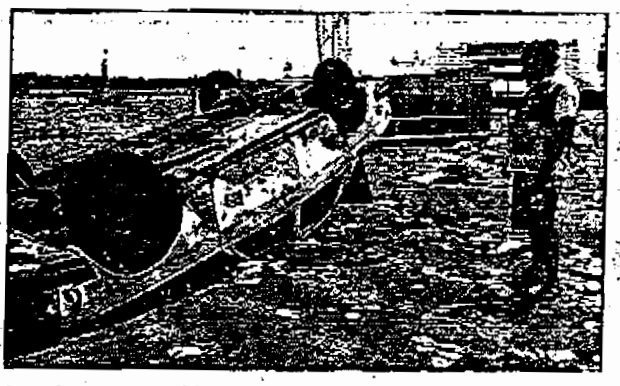
■ [illegible] promoters, according to th[illegible] medical director, ig[illegible]ming against putting [illegible] Limp Bizkit, Rage Against the Machine and Metallica back-to-back. Hundreds were injured as a result.

■ Concertgoers were setting fires throughout the weekend. Yet, an activist group was allowed to hand out thousands of candles during the festival's final night, when raging bonfires led to a riot that ended the concert.

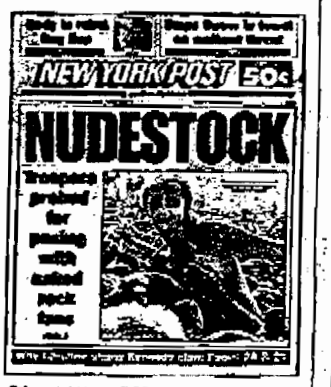
■ The Oneida Health Department expressed public-health concerns before the concert. Regardless, the promoters did not put in place effective waste-control plans or create a reliable system of running water.

Lang and Scher could not be reached for comment yesterday.

In all, there were 175 crimes, including eight sexual assaults.



CONCERT CASUALTY: This used to be a Mercedes, until Woodstock '99 fans turned it to trash. N.Y. Post: Jim Alcorn



FLASHBACK: How we told the story last July 26.

Come
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The Nikon D1 Set Com
The D1 Set will include the D1 c
Video Cable, Nikon View 1.0 s
Instruction manual, Nikon Limite
$4,999 D1 CAMERA
The Nikon D1 Set is now in the N
Professionals Digital Products De
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Camera
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INCREDI
$895
1.04 ct. HEART SHAPE
$1495
1.18 ct. PRINCESS CUT
$1895
1.77 ct. MARQUISE
Wholesale &
Ask about

Senior Writer Chris Nelson and Staff Writer Brian Hiatt report:

It's no secret that Woodstock '99 had a dark side.

Images of sunburned, shirtless teens hurling garbage into roaring fires during the festival's finale have become nearly as familiar as the tableaux of naked, placid hippies at the original Woodstock 30 years earlier.

And allegations of rapes and sexual assault during the Rome, N.Y. concert have helped make the event synonymous with sexism and mistreatment of women.

The looting and arson that ended the three-day festival were almost immediately linked to a weak security force and fans' anger over poor sanitation and high prices for food and bottled water.

But an investigation conducted over the last year by <I>Sonicnet Music News</I> suggests that much of the blame for those problems, and for the uprising they sparked, can be placed on the concert's promoters, as well as on the local government officials charged with overseeing the event.

The promoters – who included Woodstock founder Michael Lang and veteran concert promoter John Scher – and officials failed to heed warning signs of impending disaster before and during the festival.

They failed to control vendors' prices. They failed to conceive an effective clean-up plan. They failed to hire an honest, competent security force. They failed to create a secure system of running water.

Based on interviews with dozens of Woodstock employees and volunteers, promoters, local officials, industry experts and police, along with reviews of internal and government documents related to the festival, Sonicnet's investigation paints a picture of an event that displayed numerous danger signs before it began, and quickly became chaotic once it did start.

The investigation builds upon <I>Sonicnet Music News</I>' previous coverage of the festival and its aftermath, including the three-part "The Unmaking of Woodstock" series, [link] and the 59 news reports filed by Sonicnet during the festival [link].

SUBHEAD: "Playing With Fire"

Among the findings that will be detailed in "Playing With Fire: The Untold Story of Woodstock '99":

- A year after Woodstock, New York State Police say they have few leads in the ongoing investigations into eight sexual assaults at the concert. Those attacks are among the 175 Woodstock crimes being probed -- all of which have been assigned to a single detective.

- Well before the fires that ended the festival, concert-goers were setting blazes all over the venue, according to fire department and health department records obtained by Sonicnet Music News. Despite this, an activist group was allowed to hand out thousands of candles to fans on the festival's final night.

SUbHEAD

At the first Woodstock in 1969, promoter Michael Lang, then a 24-year-old entrepreneur, and his co-organizers intended to turn a profit from a singular cultural moment. But that plan was cast aside as tens of thousands of gatecrashers arrived for the show [illegible]. Despite insufficient food supplies, inadequate toilet facilities and bad [illegible], the 450,000 people at the event remained peaceful.

Woodstock '99, organized by a team that included Lang and veteran concert promoter John Scher, was intended to be a much more organized affair, improving on both the original festival and on Woodstock '94. That festival, which drew at least 250,000 people to Saugerties, N.Y., included such acts as <B>Green Day</B>, <B>Nine Inch Nails</B> and <B>Aerosmith</B>, and was marred by security team walk-offs and widespread gate-crashing.

For the third incarnation of the festival, promoters signed a cross-section of some of rock, rap and dance music's biggest acts - <B>Metallica</B>, <B>Limp Bizkit</B>, <B>Sheryl Crow</B>, <B>Jewel</B>, <B>DMX</B>, <B>Rage Against the Machine</B>, <B>Korn</B>, the <B>Offspring</B>, <B>Bush</B>, <B>Live</B>, <B>Moby</B>, <B>Everlast</B>, <B> the Chemical Brothers</B> -- to play on two stages set up in the former Griffiss Air Force Base.

They promised an impeccable security force, an ideal venue, plenty of free water, and three more days of peace, love and music.

Fans, who paid $150 for their tickets, got something very different for their money.

A few thousand of them revolted at the end of the festival, according to one police estimate, and at least 500 state troopers were called in to control the riot. They clubbed and pepper-sprayed some concert-goers, witnesses said.

Before daylight broke on Monday, July 26, the rioters had laid waste to the park. A dozen trailers were burned and one car overturned. Fans looted vendors and destroyed production towers.

- The former Griffiss Air Force Base in Rome, N.Y., where the festival was held on July 23-25 of last year, has been designated since 1984 as one of the worst hazardous waste sites in the country by the Environmental Protection Agency's Superfund program. The temporary walls that were meant to keep concert-goers out of contaminated areas were breached early in the festival.

- Members of the concert's t-shirted security force, known as the Peace Patrol, stole 5000 admission bracelets for the festival and sold them at a discount, and stole boxes of security t-shirts and sold those as well, according to witnesses. 200 guards were fired before the festival began for threatening and bullying other employees in worker housing, according to promoter Michael Lang. Some members of the Peace Patrol sexually harassed women and even took part in the mooing at the end of the festival, witnesses said.

- Dr. Philip Vuocolo, Woodstock '99's medical director, said his team warned promoters in advance of the potential for tragedy inherent in putting <B>Limp Bizkit</B>, <B>Rage Against the Machine</B> and <B>Metallica</B> back-to-back on Woodstock's main stage on the festival's second night. Hundreds of injuries took place in the over-energized crowd during those sets, and John Scher later said the scheduling was a mistake. Scher and Lang deny that they were warned, as does Dick Goldman, a Woodstock-employed lawyer who served as chair of health and safety at the festival.

- Local officials failed to maintain a close watch over the concert site even as toilets overflowed and garbage heaps grew out of control. The officials were motivated to turn a blind eye by a Woodstock contract bonus clause worth up to a half-million dollars, critics charge. Officials deny the allegation.

- As the concert date grew near, promoters made a concerted effort to portray the event as proceeding on track. But the massive festival was in danger of being canceled numerous times due to promoters' failure to meet the terms of the event's conditional permit. "We view noncompliance ... to be of such a nature that public health and safety of the residents and visitors of Oneida County and the validity of the [festival] permit are threatened," county Health Director Constance Kramer wrote to Woodstock organizer Michael Lang five weeks before the festival, in one of a series of contentious letters obtained by Sonicnet Music News.

- The focus on nudity by pay-per-view cameras at Woodstock '99 far outstripped the actual amount of nudity on site. During three hours of the telecast selected at random for analysis by Sonicnet Music News, nude women and men were highlighted an average of once every five and a half minutes. At times, the camera operator even appears to encourage women to disrobe.

- Problems with running water at Woodstock '99 were much worse than has ever previously been reported, according to internal health department documents obtained by Sonicnet Music News.

Sixty concert goers were injured; seven were arrested.

The airfield, once home to B-52 bombers and nuclear weapons, looked like the site of a bombing itself. Ground that wasn't scorched was covered in garbage, rotting food or clothes and camping gear so thoroughly destroyed over the weekend it wasn't worth carrying out. Crowd members armed with spray paint spoke for many with comments splayed on festival walls: "End ProfitStock," said one. "GreedStock," read another.

"Maybe the crass commercialism of the event and the greedy exploitation of these youngsters caught up with the vendors and promoters," guitarist <B>Tom Morello</B>, who played the festival with his band <B>Rage Against the Machine</B>, posited in the <I>New York Times.</I>

SUBHEAD:

Concert tragedies are nothing new. Meredith Hunter was stabbed to death at the <B>Rolling Stones</B>' Altamont concert in 1969 (an event also organized in part by [illegible]). A decade later, 11 fans died in a stampede for seats at a <B>Who</B> concert in Cincinnati. Another rush during a 1991 New York charity basketball game organized by <B>Sean "Puffy" Combs</B> and <B>Heavy D</B> killed nine and injured 29. Most recently, nine concert-goers were crushed to death in June as a huge crowd surged forward during a set by <B>Pearl Jam</B> at the Roskilde festival in Denmark.

The [illegible] legal problems that plagued Woodstock are also nothing new, according to safety consultant Paul Wertheimer, owner of Crowd Management Strategies. Wertheimer has a database of more than 2,000 concert problems dating back to 1952, and has spent more than 80 hours in mosh pits since 1992.

"It's Woodstock's combination of woes that was unprecedented, Wertheimer says. "The lack of safety, the lack of management, the lack of training, the exploitation, the crowd [illegible] all taken too far. Those very things you see at many other concerts. It's not a unique one-off thing. It's all of it coming together, at one time, while everybody was watching."

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBDA/DA-Griffiss
153 Brooks Road
Rome, New York 13441-4105

[illegible]

Re: Last Remediation In-Place Schedule

Dear Mr. McDermott:

I am writing this letter to state for the record that EPA does not agree with the Last Remediation In-Place (LRIP) schedule developed by yourself and presented at an Air Force meeting on June 28, 2000 in Rosslyn, Virginia. I believe that based upon a review of the site's history and considering the large number of ongoing projects still to be completed at Griffiss, the Air Force's projected LRIP date of September 2004 is unrealistic.

During the recent Peer Review meeting in Rosslyn, Virginia, representatives of the Air Force were briefed about the activities occurring at Griffiss which included the time frames for completing these activities. Some Peer Review members questioned and expressed doubt in the feasibility of completing all activities by 2004. As I stated during the meeting, I too believe that achievement of this date is highly doubtful and that the time frames for completing various steps within the remedial process are unrealistic for a number of reasons. Please note that many of these reason were stated in my September 29, 1999, letter entitled "*Scheduling Work Charts for Griffiss AFB*" and are still applicable. I have included a copy of this letter for your reference.

After reviewing your revised schedule I wish to note that a major concern has been the time frame for upper management (i.e., EPA, NYSDEC and the Air Force) to complete their review. As an example of the number of activities requiring upper management input, more than fourteen different CERCLA documents (e.g., proposed plans, RODs) for known sites will require their approval during the 2001 fiscal year and this number does not include transfer documents (e.g., CDRs/FOSETs, OPS's) and other sites not included in your revised work schedule (e.g., AOIs or new AOC sites) which may generate similar documents.

While the current schedule may be unrealistic, it does give us a starting point from which to develop a more realistic schedule. Therefore, I suggest that you, Jon Greco and myself should meet to discuss a realistic time frame for completing all activities at Griffiss.

Should you have any questions, please call at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Project Manager

RECEIVED
7
BUREAU OF EASTERN REMEDIAL ACTION

attachment

cc: J. Greco, NYSDEC w/att.
L. Hancsak, AFBDA w/att.
M. Ieradi, AFBCA/EV w/att.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

SEP 2 9 1999

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/DA-Griffiss
153 Brooks Road
Rome, New York 13441-4105

Re: *Scheduling Work Charts for Griffiss AFB*

Dear Mr. McDermott:

This is to inform you that I have reviewed the *Scheduling Work Charts* which identify all future work activity at Griffiss AFB and have provided comments below. Please note, as a general comment, the schedules appear unrealistic both in the number of simultaneous accomplishments scheduled during a month and in the shortened time frames for various milestones. However, whenever possible, I will try to expedite my reviews in order to assist the Air Force in accomplishing these new time frames, but in no way should you construe from this letter that I concur with the schedules.

1) Although you propose new schedules for the various remedial activities at Griffiss, the Federal Facility Agreement (FFA) has already established schedules for some of those activities. Furthermore, the activities identified in these scheduling charts and their time frames are shorter than some of those identified in FFA schedules and such changes cannot be formally done without modifying the FFA.

2) The schedule shortens the final remedial action at Griffiss from July 2003 to September 2002. This final date is based upon overlapping activities which I do not recommend. Most of the milestones identified should only begin once the previous milestones is accomplished. For instance, the Air Force intends to begin construction activities at a landfill prior to receiving final approval on the design documents from EPA and DEC. If the Air Force does begin construction activities before receiving our approval then it does so at its own risk.

Based upon the schedule, an unrealistic amount of activities are scheduled each month. The following include all the ongoing activities for the month of February 2000.

- EPA/DEC reviews 7 NFA draft AOC RODs
- EPA executes LF1 ROD
- EPA/DEC review draft RODs for LFs 2/3, 5 & 7
- AF submittal of draft RODs for LFs 4 & 6
- AF awards LF cover contracts for LF's 2/3, 5 & 7
- AF submittal of final NFA report for Bldg. 215 & 216 OWS
- Interim Remedial Action for soils at Nose Docks 1 & 2
- EPA/DEC review draft-final FS for Threemile & Sixmile Creek
- Perform Natural Attenuation Study of TCE Contamination
- EPA/DEC review LTM Baseline Study
- AF submittal of draft Interim Remedial Action report for Bldg 133
- AF completes LF-49A Lead Closure
- AF submits draft-final AOI ESI Addendum Workplan
- AF submits final Proposed Plan for Pumphouse 5
- EPA/DEC reviews draft-final Investigation Report for Bldg. 100
- EPA/DEC reviews draft-final Investigation Report for Bldg. 110
- EPA/DEC reviews draft Interim Remedial Action Report for Bldg. 43
- AF submittal of draft Investigation Report Tank Farms 1 & 3
- AF submits draft NFA ROD for Source Removals sites
- EPA/DEC review draft Investigation Report for Pumphouse 1, 2 & 3
- AF develops draft Phase 1 Characterization Report for Spills

- AF develops draft Phase 2 Characterization Report for Spills
- AF submits final Phase 3 Close SS Work Plans for Spills
- AF submits final Phase 4 Close SS Work Plans for Spills
- AF develops LTM Baseline Study draft Technical Report for Petroleum Sites
- EPA/DEC review/approve final Closure Report for Bldg 35
- AF closing Hardfill Areas

While some of the above activities can occur simultaneously, in my opinion, it is unrealistic to expect all of the review activities to be completed as scheduled. Most of the time allocated for review either by EPA, DEC or the AF is one month. Based upon my estimate nine different EPA/DEC reviews are to be completed and nine different AF reports are to be submitted during this one month and these numbers do not include any other ongoing activities (e.g., property transfers) which also takes time and resources to accomplish. Again, I simply wish to point out the schedule seems unrealistic.

4) Finally, the schedule does not consider subsequent reviews of a document or the possibility of extensions or delays. In fact, the time frames for several AF submitals have already past; therefore, requiring the needs for extensions.

Should you have any questions, I can be reached at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Project Manager

JG

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JUL 11 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Re: Bioventing Field Test - Apron 1

Dear Mr. McDermott:

I have reviewed the Summary Report, Bioventing Field Test - Apron 1, dated May 2000, and have provided the attached comments. Please note that although this site is being regulated under the NYSDEC Spills program, the discovery of dichlorobenze at the site now requires CERCLA oversight.

Should you have any questions, please contact me at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Project Manager

cc: J. Greco, NYSDEC

Technical Review of the Draft Summary Report:
Bioventing Field Test at Apron 1
Former Griffiss Air Force Base - Rome, New York

1.0 MAJOR CONCERNS

1. *In-Situ* Respiration Testing. The report does not present adequate respiration data from the field test to justify the recommendation of full scale bioventing. Two *in-situ* respiration tests were conducted. The results of the first test are reported to be inconclusive. The results of the second test are based on data that may not be adequate to justify the recommendation of full scale bioventing as the selected remedial action. Specifically, it is unclear whether the oxygen utilization rates presented are sufficient for calculating biodegradation rates. A general rule of thumb is to use data from monitoring points which exhibit fractional losses of helium less than fractional losses of oxygen. This rule is used to ensure that oxygen utilization rates are representative of microbial consumption and not resulting from diffusion or leakage due to short circuiting. It appears that oxygen utilization rates were estimated using data collected from monitoring points where fractional losses of helium exceeded fractional losses of oxygen. Further, the formula used for the biodegradation rate calculation is not discussed in detail. Several assumptions are inherent when calculating biodegradation rates and these assumptions should be presented and discussed. Therefore, the validity of the biodegradation rate calculated for the second respiration test cannot be verified.

2. Soil Gas Permeability Test. The results of the soil gas permeability test are adequate to conclude that the characteristics of the subsurface formation are within the acceptable limits of established criteria for bioventing (i.e. soil permeability greater than or equal to 0.1 darcy).

3. Short Circuiting. The issue of short circuiting has not been properly addressed in this report. Short circuiting is mentioned in conjunction with the results of the first respiration test as a possible explanation for the behavior of injected helium. A more detailed discussion of short circuiting should be presented, including, the anticipated likelihood of short circuiting in identified low permeability zones throughout Apron 1, the effects of short circuiting on cleanup objectives, and suggested remedies for short circuiting.

4. Non-Petroleum Halogenated Hydrocarbons. The presence of non-petroleum halogenated hydrocarbons (dichlorobenzenes) at concentrations above guidance values should be addressed with respect to the feasibility of the proposed bioventing as a remedial action. Historically, bioventing was not considered appropriate for treating these compounds. However, recently a field study performed at Hill Air Force Base, Operable Unit 1 has demonstrated some degree of effectiveness of bioventing for remediating soils contaminated with these compounds including 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene (Gibbs, et. al, 1999). A discussion of anticipated effectiveness of reducing concentrations of these compounds using bioventing should be presented.

2.0 GENERAL COMMENTS

1. The report identifies the goal to be field testing for the development of a full-scale bioventing system to remediate the contaminated soil at the site. However, there is no determination of cleanup endpoint goals. Also, there is no distinction between remediation of vadose zone soils as opposed to soils in the saturated zone. The text should be more specific with regard to expected cleanup endpoints if full scale bioventing is implemented, and more specific with regard to compliance with New York State Department of Environmental Conservation's (NYSDEC) Spill Technology and Remediation Series (STARS) guidance values for soils. The text should specify vadose zone soils as the target media for remediation by bioventing.

2. Throughout the report, the ground surface in the field test area is identified as areas of concrete, asphalt, and grassy areas. A figure should be included that identifies ground cover or lack thereof. Existing ground cover at the monitoring point and vent well locations can influence data interpretation.

3. The report does not present a discussion of existing oxygen concentrations at the test area in the subsurface. The data collected for initial conditions at 6 feet (ft) below ground surface (bgs) (e.g., oxygen and carbon dioxide concentrations) may provide insight into existing biodegradation activity as oxygen is not limiting. A brief discussion of existing site conditions with respect to oxygen concentrations in the subsurface should be included.

4. The bioventing test did not include testing in an uncontaminated area with similar geology for the purpose of measuring background degradation rates as discussed in the EPA Manual, 1996. The text should justify the reasons for not performing the background control test.

5. In order to evaluate the *in-situ* respiration test data, the monitoring results for helium, oxygen, and carbon dioxide concentrations should be plotted on one graph for comparison.

6. As stated in Section 4.3 of the report, the results of the first *in-situ* respiration test were inconclusive for several reasons. The testing method implemented differed from the method presented in the EPA Manual-Volume II (1995). For example, the test procedures in the EPA Manual-Volume II, (1995) specify injection of air directly into small diameter monitoring points and subsequent monitoring of specific compound concentrations in the monitoring points. For the first respiration test, air was injected into the vent well and the surrounding monitoring points were monitored. This represents a significant departure from the prescribed methodology that should be explained.

7. The feasibility of remediation of halogenated hydrocarbons using bioventing should be discussed. The discussion should address anticipated effectiveness of bioventing for all compounds with respect to established cleanup or guidance values.

8. In the references section, and therefore throughout the document, the following citations include the wrong date. The correct date is September 1995.

Leeson, A. and R.E. Hinchee, "Principles and Practices of Bioventing, Volume I: Bioventing Principles," U.S. Air Force Center for Environmental Excellence, September 1996.

Leeson, A. and R.E. Hinchee, "Principles and Practices of Bioventing, Volume II: Bioventing Design," U.S. Air Force Center for Environmental Excellence, September 1996.

3.0 SPECIFIC COMMENTS

1. **Section 1.1, page 1-1.** The text states Apron 1 is constructed of 18 inches of concrete. However, areas within Apron 1 are identified in other sections of the document as asphalt and grassy areas. The text should be revised.

2. **Section 1.2, page 1-1.** The text states "various pits on Apron 1 were excavated and removed." The specific pits removed should be listed. The text should be revised to identify these areas.

3. **Figure 1.1, page 1-2.** There is no north arrow in this figure. A north arrow should be added to the figure.

4. **Section 1.3, page 1-5.** The text mentions contaminated soils "well into the saturated zone." The approximate depth of the water table should be provided.

5. **Figure 1.4, page 1-6.** This figure, titled "Estimated Extent of Soil Contamination," does not include the areas of contamination identified in Figure 3. If the areas in Figure 3, which are not identified in Figure 4, were excavated during system deactivation, the text should specify those areas excavated and the volumes of soils removed.

6. **Section 2.2, page 2-1.** The text references an excavated area and soil samples collected from the sidewalls and pit bottom. There is no figure identifying the locations of the pit and samples. A figure should be provided that shows the excavation area and sample locations.

7. **Section 2.2, page 2-2.** The text states, "... geologic descriptions of soils were recorded based on geoprobes and piezometers." It is unclear whether this means borings were logged during Geoprobe® borings and during piezometer installation. The text should be revised.

8. **Section 2.2, page 2-2.** The text states soil in the test area consisted of clean, silty, fine sand fill. The use of "clean" in this context appears to be inappropriate. The text should be revised to define "clean."

9. **Table 2.3.** In the notes, xylenes should be defined as total xylenes or as the sum of ortho-, meta-, and para-xylene.

10. **Figures 2.3 and 2.4.** These figures include monitoring point locations (e.g. MP-B). These points should be described in the text before referring to the figure. The approximate location of the water table should be provided in these figures.

11. **Section 2.3.1, page 2-13.** The vent well was installed with screen from 9 to 14 feet bgs. The text does not present the rationale for this screen placement or length. The text should include a discussion of the screen length and placement.

12. **Section 2.3.3, page 2-14.** The selected blower for bioventing was a Gast Model R6130Q-50 with an explosion proof motor. This blower is designed for hazardous atmospheres with flow up to 100 actual cubic feet per minute (ACFM). The text should discuss blower selection with respect to anticipated pressure and flow during soil permeability testing.

13. **Section 2.4.1, page 2-17.** The text lists several halogenated hydrocarbons (1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene) under the BTEX section heading and states that these compounds exceed STARS guidelines. These compounds, however, are not BTEX compounds and there are no guidance values in the NYSDEC's STARS Memo #1 for these compounds. The text should be revised accordingly.

14. **Table 2.6, page 2-18.** In the notes, entries (2) and (3) state "recommended state soil cleanup objectives from basewide remedial investigation" and "recommended state soil cleanup objectives, NYSDEC, 1994," respectively. There is no discussion of these objectives in the text. The text should be revised to include a discussion of the suspected source of these compounds and the target cleanup levels.

    The table includes qualifier codes presented with analytical data. The codes should be defined in the notes section.

15. **Section 2.4.5, page 2-19.** The text states that "phosphorous deficiency may exist in other zones." There is no discussion of the possible ramifications of this deficiency. The last sentence in this section appears to be contradictory regarding the addition of nutrients to account for deficiencies. If nutrient addition has not been found to enhance biodegradation, nutrients should not be added unless sufficient justification is presented. The text should be revised to include discussion of phosphorous deficiency of soils with respect to bioventing, and the apparent contradictory statement should be clarified.

16. **Section 3.2, page 3-1.** The text states the results for the initial soil gas permeability test were considered suspect because of difficulties with keeping the time intervals regular and synchronized. It is unclear whether the results are suspect due to human error in recording or another cause. The text should be revised to clarify exactly why the test results were considered unacceptable.

17. **Table 3.3, page 3-4.** The table presents air injection and flow data for the blower system collected during the soil permeability test. The data suggest that the specified blower is operating off of the performance curve provided by Gast. If the air pressure and flow were reduced to a specific value using a valve, this information should be included.

18. **Figures 3.1-3.5.** The x-axis for this figure does not give units of time. The units of time

should be included.

19. **Section 3.3, page 3-11.** The text states "an estimated radius of influence of 120 feet." This figure represents the estimated pressure radius of influence and not the more important oxygen radius of influence. The text should be revised to reflect that the pressure radius of influence was calculated empirically and the oxygen radius of influence is unknown.

20. **Section 3.3, page 3-11.** The text states that two alternate formulas (Type A and Type B) are employed by Hyperventilate® to estimate darcy values (permeabilities) for soil. No discussion of the difference between the two formulas or the applicability of each is presented. A brief discussion of these formulas should be included.

21. **Section 3.3, page 3-13.** The units for Q in the permeability equation are given as cm^2/s. The units should be cm^3/s.

22. **Section 3.3, page 3-14.** The soil permeability values presented, 3.07 to 20.0 darcy, are stated in the text as falling at the low end of medium sand. Figure 2-6 identifies the majority of the soils at the test area as fine sand. This discrepancy should be discussed, especially with regard to the lower expected permeabilities for fine sand (0.1 to 1.0 darcy).

23. **Sections 4.0, 4.1, and 4.2.** The text states "...test may be indicative of possible short circuiting." A more detailed discussion of possible short circuiting should be included. Several issues should be addressed in this discussion, including effects of short circuiting with respect to achieving cleanup goals, identification of subsurface zones in Apron 1 where short circuiting is anticipated, and strategies to remedy short circuiting. Also, a general equation is presented for the calculation of biodegradation rates. The derivation of this equation should be provided including the assumptions made.

24. **Section 4.3.1, page 4-4.** The text states the total injection time was 20 hours. However, based on the start and shut down times presented, the air injection time was 15 hours, 10 minutes. An explanation should be provided for the short duration of injection in comparison with the 24 hour duration recommended in the EPA Manual-Volume II (1995). The test should be revised accordingly.

25. **Section 4.3.1, page 4-4.** The text states the test was terminated 98 hours after injection stopped. The reasoning for this number of hours should be explained. If the test was stopped after oxygen concentrations reached 5 percent or after the initial linear portion of the respiration curve, that information should be provided.

26. **Section 4.3.2, page 4-4.** The text states that the fractional loss of oxygen is approximately 36 percent of the fractional loss of helium, and therefore the measured oxygen levels are acceptable for calculating biodegradation rates. Justification for this statement should be presented. The EPA Manual-Volume II (1996) states that if helium loss rates are greater than oxygen loss rates, the test data should be disregarded. This discrepancy should be resolved.

27. **Table 4.3, page 4-5.** Helium data are presented in units of cubic feet per hour. Approximate concentration of helium in the injection mixture should be presented as a percentage by volume.

28. **Table 4.4, page 4-5.** Data is presented as fractional helium loss and fractional oxygen loss. A description of these parameters should be presented in the text including how they are calculated.

29. **Section 4.3.2, page 4-6.** The text states that biodegradation rates at all three screen levels were estimated based on test results. The specific formula used for the biodegradation rate calculation should be presented including all assumptions made. The text should be revised to include this information.

30. **Section 4.3.2, page 4-6.** Biodegradation rates of 1.63 to 3.65 mg/kg-day are compared with rates calculated from the previous test. Then, an average biodegradation rate range is presented based on both tests of 2.5 to 5.9 mg/kg-day. It is unclear and seemingly inappropriate to make comparisons to the initial test results and average the biodegradation rates over both tests considering the statement in Section 4.3 that the results of the initial respiration test were considered to be inconclusive. This discrepancy should be resolved.

New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials
Bureau of Solid Waste and Land Management, Room 206
50 Wolf Road, Albany, New York 12233-7258
Phone: (518) 457-1859 • **FAX:** (518) 485-7733
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

July 5, 2000

David L. Huxsoll, D.V.M., Ph.D.
Center Director
United States Department of Agriculture
Plum Island Animal Disease Center
P.O. Box 848
Greenport, NY 11944-0848

Dear Dr. Huxsoll:

We have reviewed the United States Department of Agriculture (USDA) Plum Island June 5, 2000 proposal to excavate medical waste that was generated during laboratory operations on Plum Island from 1954 to 1993. According to the USDA, such waste was treated and then buried in several areas on Plum Island. In conjunction with Plum Island's Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Program, USDA proposes to remove the waste for off-island disposal at an approved out-of-state landfill authorized to receive treated medical waste.

According to the USDA June 5, 2000 proposal all of the medical waste generated during laboratory operations at Plum Island from 1954 to 1993 were routinely treated in accordance with or exceeded nationally recognized decontamination or sterilization procedures and operating parameters that were in existence at the time. Based on the information contained in the June 5, 2000 proposal, excavation and removal of treated regulated medical waste from the Plum Island disposal sites identified in the proposal is acceptable.

This letter authorizes USDA Plum Island to excavate and remove for off-island disposal, only treated regulated medical waste that was generated on the island from 1954-1993.

Post-it® Fax Note 7671	Date 5/21/01	# of pages ▶ 2
To Marsden Chen	From Elsa Payne	
Co./Dept.	Co. PIADC	
Phone # (518) 457-3976	Phone # (631) 323-3350	
Fax # (518) 457-8990	Fax # (631) 323-3335	

All treated medical waste must be excavated, handled and transported in accordance with the USDA proposal (i.e., April 27, 2000 Memorandum from Entech, Inc. to Peter Jovanovich of the USDA) and disposed at a disposal facility authorized to accept treated medical waste (**Note: treated medical waste containing sharps may not be disposed in New York State unless all of the sharps have been rendered 100% unrecognizable as intact sharps devices).** Such waste must be contained, transported and disposed in accordance with all applicable laws and regulations for the transport and disposal of treated regulated medical waste of the recipient state and must be accompanied by a New York State form certifying that the waste was properly treated. The Department relies on USDA for all information for which this determination is made and on USDA's representation that it is in compliance with all applicable laws and regulations.

The USDA Plum Island must notify the Department of any proposed changes with regard to this initiative and must provide the Department with a minimum 30 day advance notice of the proposed date to begin excavation and removal operations.

If you have any questions or concerns, please contact me at (518) 457-5695.

Sincerely,

Alan G. Woodard, Ph.D.
Environmental Program Specialist 2

cc: R. Tramontano, NYSDOH
G. Estel, NYSDOH
I. Salkin, Ph.D., NYSDOH
P. Morris, DHEC, S. Carolina
E. Payne, USDA
M. Chen, DHWR

2.1 Soil Gas Survey

The soil gas survey was conducted using a truck-mounted hydraulic probe. Soil gas samples were collected from the vadose zone, approximately one foot above the water table. The groundwater table was between three and 9 feet beneath the ground surface during the survey. A total of 33 points (SGB43-1 through SGB43-33) were sampled and tested for benzene, toluene, ethyl benzene and xylenes (BTEX). Figure 2 shows the location of the soil gas sampling points. BTEX was not detected at any location except SGB43-10 which is located north of the pump islands (see Figure 2). Toluene was detected in that location with a concentration of 15 µg/L. Appendix A shows the complete laboratory results of the soil gas samples.

2.2 Soil Sampling

Soil samples were collected from the site using hydropunch techniques to characterize the soil contamination. A total of 54 soil samples were collected from 20 hydropunch locations. All samples were analyzed for VOCs (EPA Method SW8021 or SW8260), SVOC (EPA Method SW8270), and metals (EPA Methods 6010). The locations of the hydropunch points (see Figure 3) were selected based on the results of the soil gas survey and previous investigations. In general, soil samples were collected from each hydropunch location at 2 to 4 feet below ground surface (bgs) and 6 to 10 feet bgs. At the time of the sampling, the groundwater levels were found to range from approximately 4.5 feet to 12.5 feet bgs.

2.2.1 Field Screening

Each hydropunch location was logged describing the recovered soil samples' grain size, moisture content, color and any evidence of contamination such as fuel odor, stain, sheen or free product. Descriptions were recorded for each soil sample interval and any discrete lithologies encountered. Each recovered interval was screened for organic vapors in the field using a calibrated photoionization detector (PID). PID readings were logged accordingly. The soil screening results from the hydropunch samples are presented in Appendix B.

2.2.2 Extent of Soil Contamination

The laboratory results indicated VOC and SVOC contamination at concentrations above NYSDEC Spill Technology and Remediation Series (STARS) Guidance Values in the soil north-northeast of the fueling stations and also in the soil south and southeast of the OWS. Figure 4 shows the estimated extent of the toluene contamination in the soil and Figure 5 shows the estimated extent of total VOC and SVOC contamination in the soil. The majority of the contamination was found within the interval 2 to 6 feet bgs.

The metals analysis results (Appendix C) indicate that the soil is sodium rich throughout

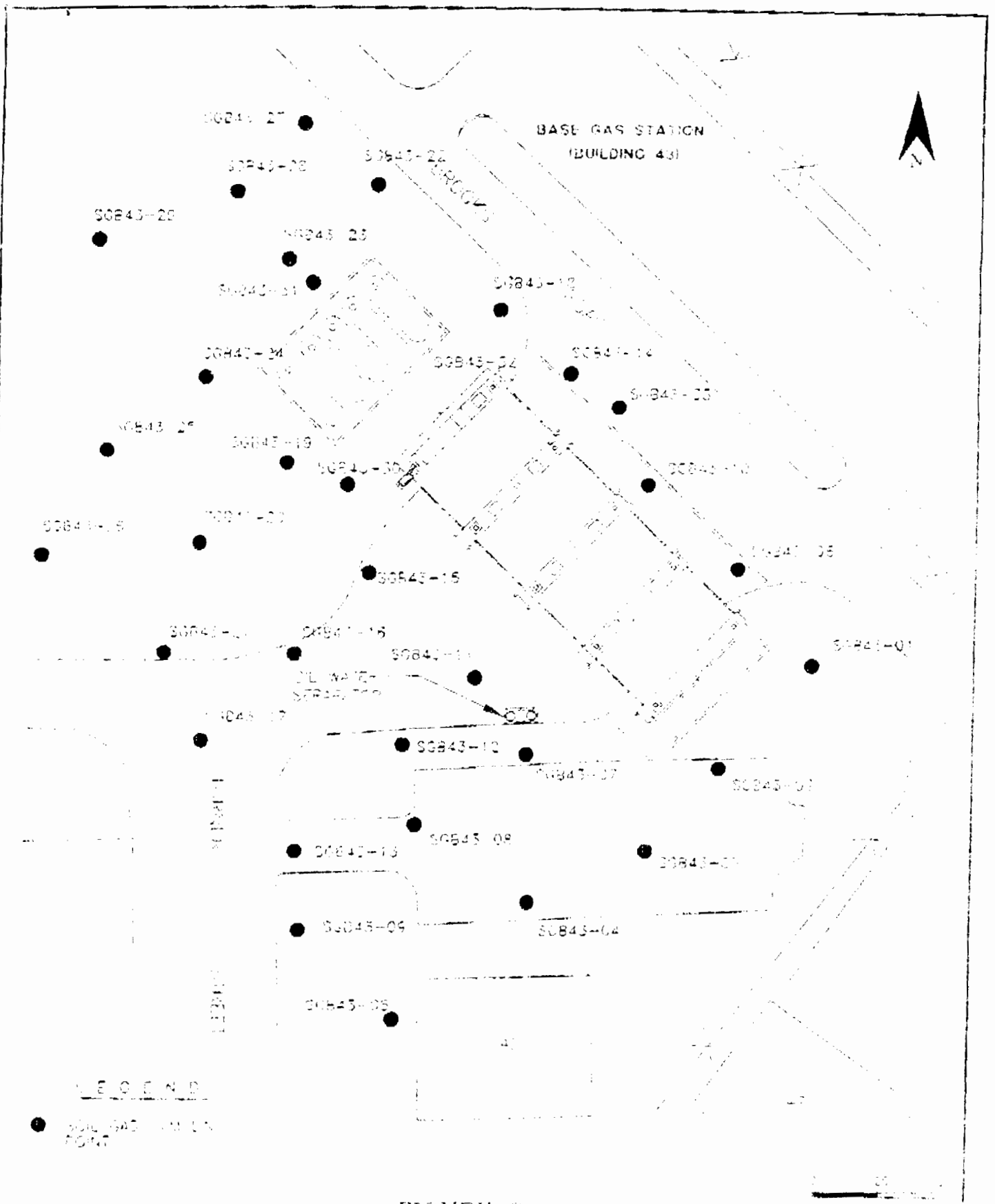


FIGURE 2

NO	REVISION	BY	DATE	

ENSR CONSULTANTS P.C.
2220 "WINERIDGE" PARKWAY
SUITE 410
ROCKVILLE, MARYLAND 20850
(301) 816-0700

CLIENT: AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE (AFCEE)
PROJECT: GRIFFISS AIR FORCE BASE - ROME, NEW YORK
TITLE: LOCATION OF SOIL GAS SAMPLING POINTS

FILENAME: 5A3A

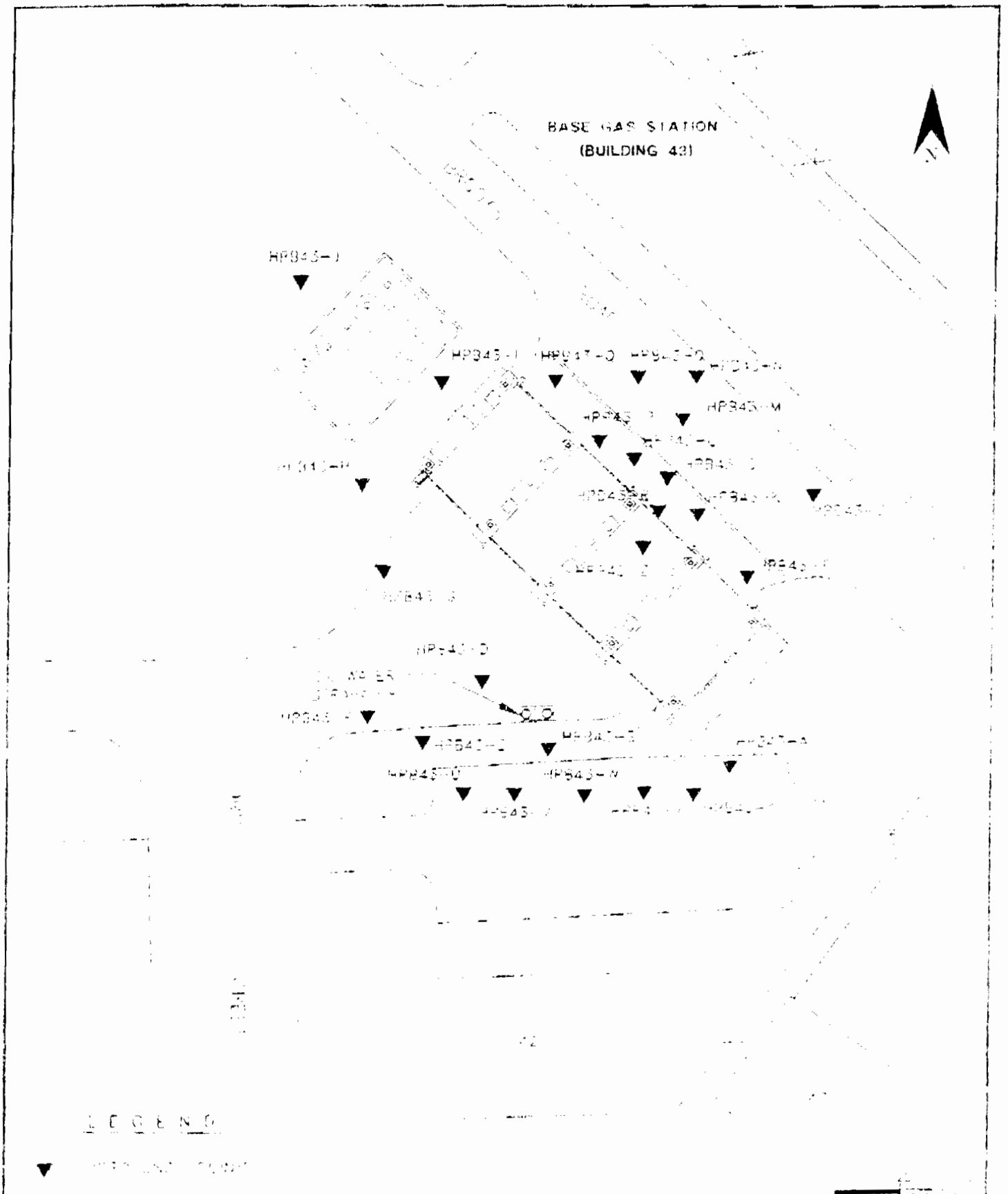


FIGURE 3

NO.	REVISION	BY	DATE	PROJECT NUMBER		
				SCALE		
				DESIGNED BY		
				DRAWN BY		
				CHECKED BY		

DEE CONSULTANTS, P.C.
200 TWINBROOK PARKWAY
SUITE 410
ROCKVILLE, MARYLAND 20852
(301) 216-0200

CLIENT: AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE (AFCEE)
PROJECT: GRIFFISS AIR FORCE BASE - ROME, NEW YORK
TITLE: LOCATION OF HYDROPUNCH POINTS

FILENAME: 843F3

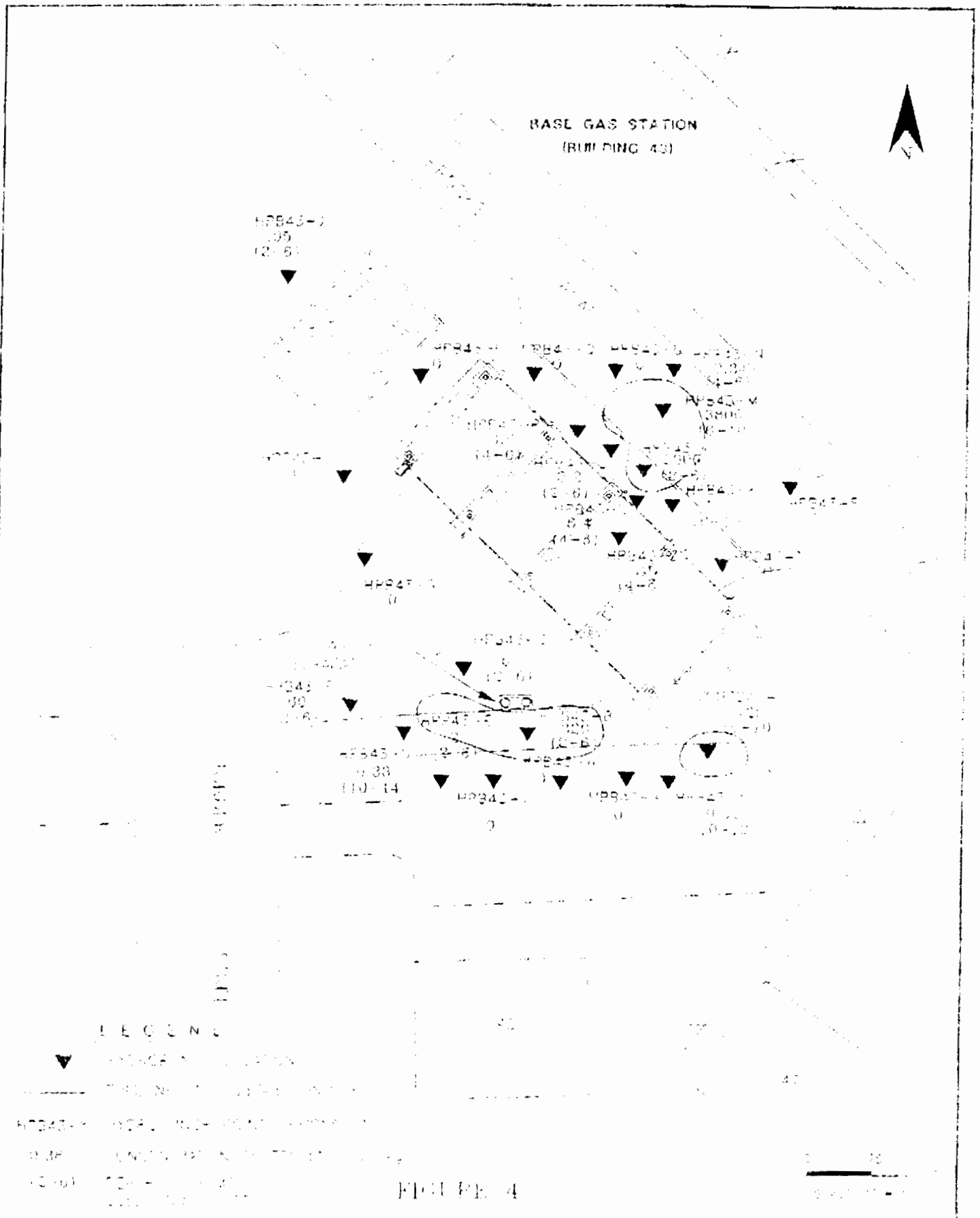


FIGURE 4

CONSULTANTS, P.C.
2300 TWINBROOK PARKWAY
SUITE 310
ROCKVILLE, MARYLAND 20852
(301) 816-9700

TITLE ESTIMATED EXTENT OF TOLUENE SOIL CONTAMINATION

FILENAME: 943F4

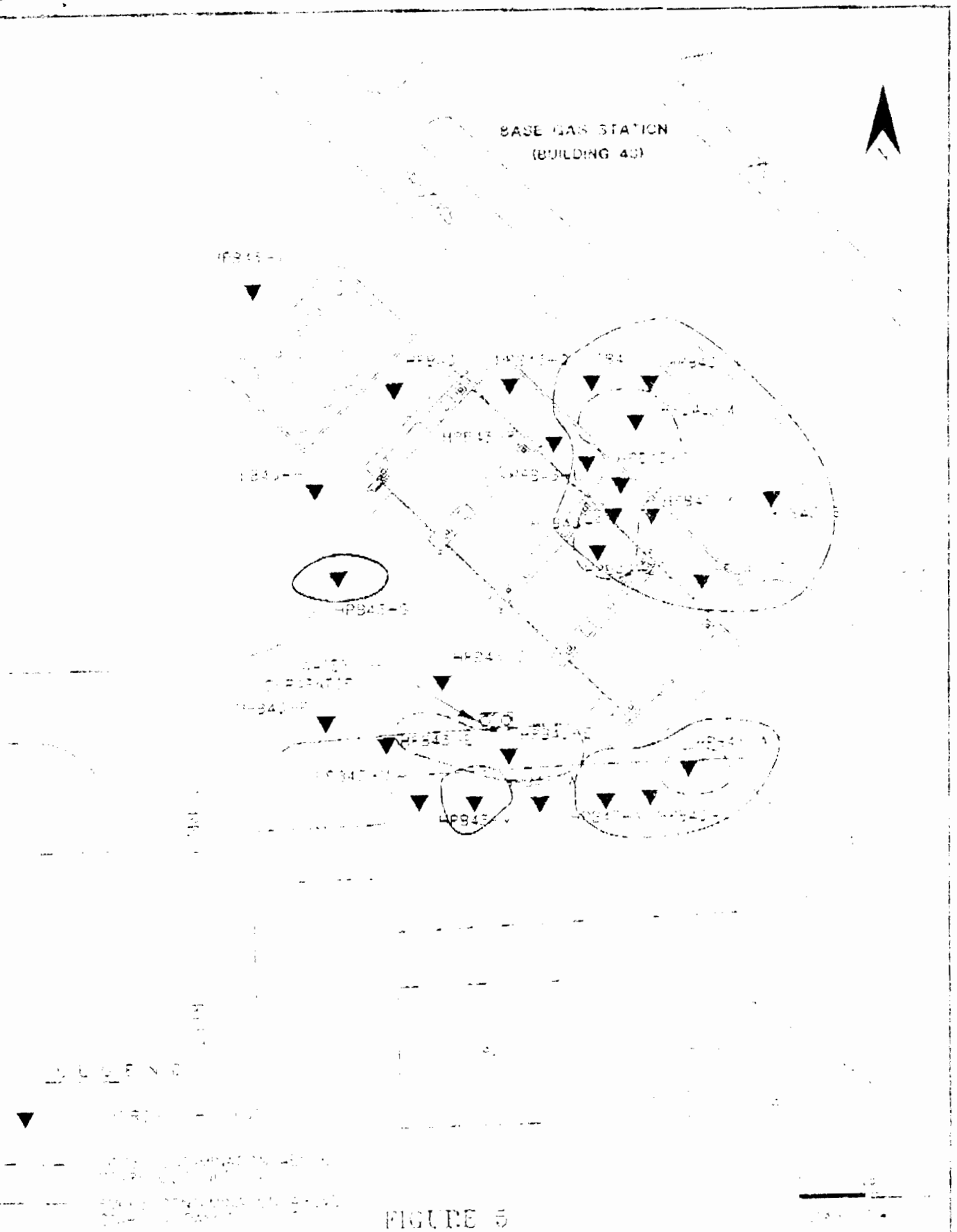


FIGURE 5

				TITLE: ESTIMATED EXTENT OF VOCs AND SVOCs SOIL CONTAMINATION

FILENAME: 184FIG5

[illegible] Chromatograph should be utilized the background [illegible] level in one location (SB-B4-P) will detect some [illegible] of 72 ppm (2 to 3 feet bgs) and 81 ppm (6 to 7 feet bgs). The photoionization detector found levels of the background screening level in soil samples (SB-B4-P) with detected concentrations of 56 ppm (0 to 2 feet bgs). Appendix E includes summary tables of the laboratory results for the soil samples. Appendix F includes complete laboratory results.

2.3 Groundwater Sampling

[illegible] groundwater monitoring network consisted of [illegible] groundwater monitoring wells installed. Of the 14 piezometers, three were located in close proximity to the pump [illegible] within the UST. Six piezometers were placed where contamination was found during the geophysical and soil sampling, and the remaining six were located near the OWS. Field observations during the development and sampling of the fourteen piezometers found no indication of contamination. The location of the piezometers is shown in Figure 4, and the piezometer installation report is summarized in Appendix D.

Groundwater samples were collected from the 14 piezometers and the existing monitoring well B49MW-2. The existing well B49MW-2 was installed in November 1992. The well is approximately 16 feet deep and constructed with 2 inch diameter Schedule 40 PVC casing and a 10 foot section of 0.01 inch machine slot Schedule 40 PVC screen with a bottom cap.

The groundwater samples were analyzed for VOCs, SVOCs and metals. A review of the data for the 14 piezometers sampled showed that all VOCs and SVOCs were below SCDHS Guidance Values (see Appendix F). Ten VOCs and one SVOCs were detected at concentrations above NYSDEC groundwater quality standards in the samples collected during the sampling of B49 MW-2 (see Appendix F). The detected VOCs and SVOC are as follows:

Naphthalene - 68 ppb
Ethylbenzene - 120 ppb
O-Xylene - 83 ppb
M Xylene - 130 ppb
Total Xylenes - 120 ppb
Isopropyl benzene - 11 ppb
N-Propylbenzene - 34 ppb
1,2,4 Trimethylbenzene - 420 ppb
1,3,5 Trimethylbenzene - 85 ppb
P-Ethyltoluene - 24 ppb
T Butylbenzene - 110 ppb

Appendix F includes [illegible] laboratory analytical report.

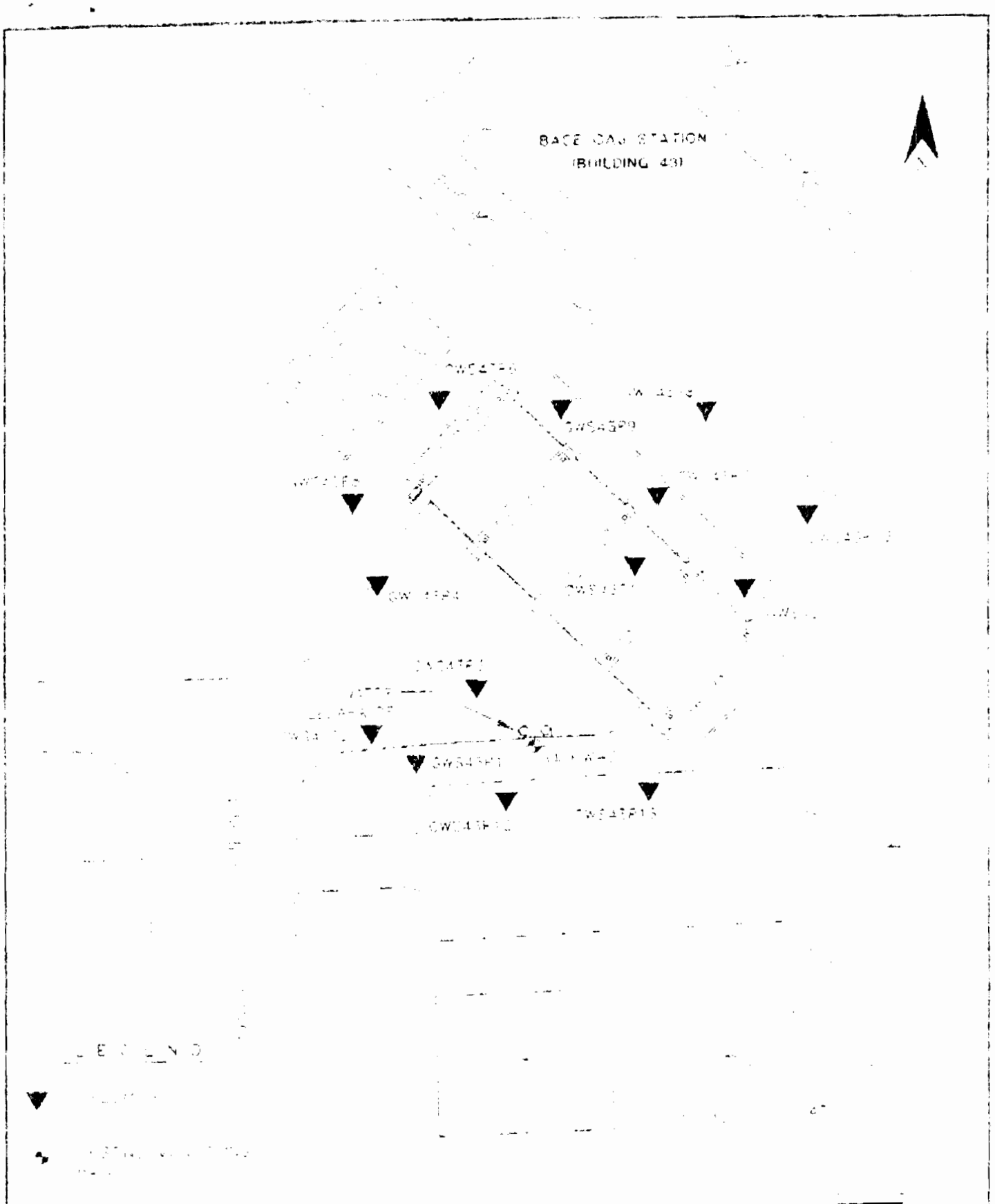


FIGURE 5

NO	REVISION	BY	DATE

DRAWN
CHKD
DATE
SCALE

CONSULTANTS
[illegible] WINSBROOK [illegible]
SUITE 410
ROCKVILLE MARYLAND [illegible]
(301) 816-0700

[illegible] FOR ENVIRONMENTAL [illegible]
(AFBCA)
[illegible] AIR FORCE BASE [illegible]

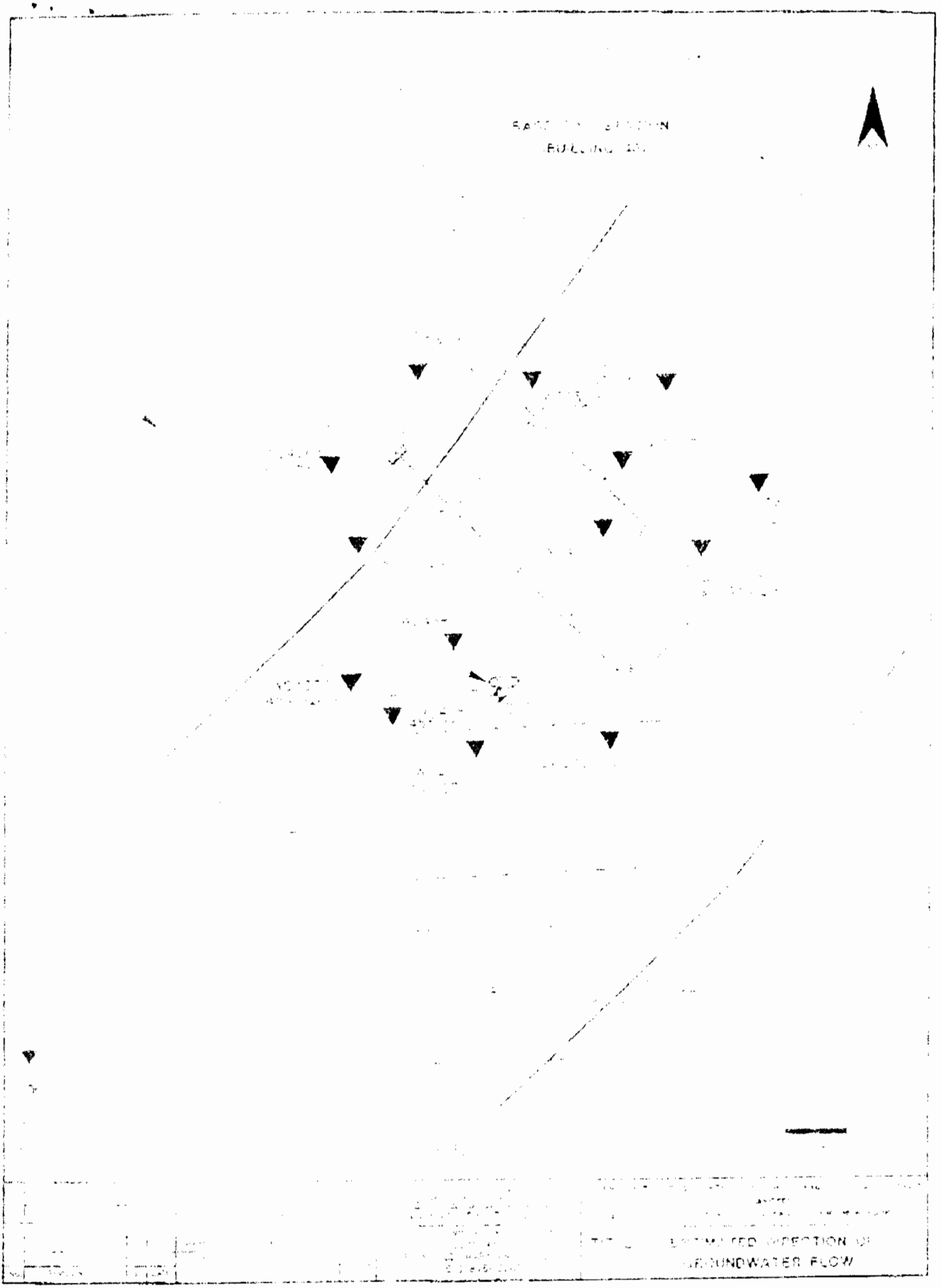
TITLE LOCATION OF PIEZOMETERS

FILENAME: 3-326

2.3.3 Extent of Groundwater Contamination

3.0 RELATED CONSTRUCTION

4.0 RECOMMENDATIONS


BUILDING 23
ESTIMATED DIRECTION OF
GROUNDWATER FLOW

June 29, 2000

Proj. Rev's for Parcel "PID" (Seneca + GAFB) &
Griffiss AFB (Parcel F4-A).

Name	#
Jonathan Greco	518-457-0549
Valerie Woodward	457-9538
[signature]	457-3976
Marsden Chen	457-3976
James Quinn	457-3976
Jeff McCullough	71
Heather Bishop	4573976
Dan Geraghty	402-7890
Sal Ercolino	457-4389

Outcome:

Seneca: ① Could new comment requesting specific access controls.

② Fost must clarify that it is the Army's determination that the area is OK.

GAFB: ① Note that the site is the site of a CERCLA investigation w/ No ROD. Request a clear statement re: the groundwater on the Parcel

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518)
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

FILE COPY

June 19, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Three and Six Mile Creek Feasibility Studies

The New York State Department of Environmental Conservation's Division of Environmental Remediation, in conjunction with the Division of Fish and Wildlife, has reviewed the referenced document. The following are our comments:

Six Mile Creek Summary Memorandum

1. The first two sections of this report contain statements and analysis regarding the creek characterization, the ecological evaluation and contaminant screening that have previously been reviewed and found to be inaccurate, incomplete or otherwise unacceptable. To the extent that these comments have not been satisfactorily addressed, this section of the report is unacceptable. If the forthcoming proposed plan includes this unacceptable information, extensive editing will be necessary.

2. From the NYSDEC's analysis of the data, the fish and wildlife resources of the creek have been adversely impacted by discharges from several sources on the base. Remedies have now been selected for the remediation of Landfills 1, 7 and 2/3. The Weapons Storage Area (WSA) and/or the WSA Landfill continues to be a source of contamination to the creek and must be thoroughly investigated and remediated to eliminate discharges to the creek. The possibility of work in the creek or on the banks near the WSA cannot be ruled out until that investigation is complete.

3. The report states that the iron floc and cloudiness observed in the creek below the base is due to Landfill 1, however, other discharges are also likely contributors to these conditions as well, such as area wide storm sewers and/or bedding material. Please include a discussion of the ongoing SPDES program at Griffiss, with particular emphasis on any issues of non-compliance.

4. I have seen no post-remedial data on the condition of or discharges from Rainbow Creek and therefore cannot comment conclusively on the statement that this AOC no longer contributes contaminants to Sixmile Creek. (The fact that no PCBs were found anywhere on or off the base during the SI PISCES sampling suggests some analytical, laboratory or PISCES deployment problem.)

5. The NYSDEC's Division of Fish and Wildlife is receptive to the assertion that excavation of sediments is unwarranted in Sixmile Creek **at this time**. This decision is based on the assumption that remediation of the landfills and other AOCs or discharges to the creek will be sufficient to eliminate or mitigate the existing and potential adverse impacts to fish and wildlife resources of the creek. The remedy for this AOC must include a comprehensive creek monitoring plan to include periodic sampling of sediment, surface water, fish and other biotic indicators, both on- and off-base. The purpose of the monitoring program is to evaluate the effectiveness of the various remedies for the landfills and other AOCs along the creek. This will be long term monitoring, and **not limited to a five year period** as indicated here. Of course, should enough successive rounds of sampling demonstrate the remedial goals have been attained, the USEPA and the NYSDEC could be petitioned to reduce or eliminate certain aspects of the monitoring program.

   Of particular concern is the level of PCBs in fish tissue. If monitoring demonstrates that fish tissue concentrations do not decline to an acceptable level (i.e. approaching 0.1 ppm), additional remediation and/or excavation may need to be considered. This goal (i.e., 0.1 ppm in fish tissue) must be included in the PRAP and ROD.

Three Mile Creek Feasibility Study Addendum

1. The first three sections of this report contain statements and analysis regarding the creek characterization, the ecological evaluation and contaminant screening that have previously been reviewed and found to be inaccurate, incomplete or otherwise unacceptable. To the extent that these comments have not been satisfactorily addressed, this section of the report is unacceptable. If the forthcoming proposed plan includes this unacceptable information, extensive editing will be necessary.

2. The weighing of habitat quality against the need for excavation of sediments is only applicable to those off-base areas of the creek where sediment concentrations are low enough to consider leaving them in place. It does not apply to the on-base portions of the creek where the sediment concentrations and biological sampling indicate that adverse impacts are occurring to fish and wildlife resources of the creek.

3. The NYSDEC's Division of Fish and Wildlife is receptive to the recommendation to excavate the entire on-base portion of the creek, however, there is no apparent basis for limiting the excavation to the top 12 inches, as there is no data to show what concentrations exist below that depth. Sediment remediation goals must be selected and confirmatory sampling must be performed. The same is true for the Landfill 5 drainage ditch.

   The Air Force, USEPA and the NYSDEC must come to agreement on the cleanup values prior to the issuance of the final FS for this site.

4. Please include as an alternative the possibility of removing sediments to a fixed depth, combined with the placement of clean sands and gravel to help curtail environmental contact with any remaining contaminants.

5. The NYSDEC's Division of Fish and Wildlife is receptive to the suggestion to excavate silty deposits in the off-base portion of the creek and in the pond. Sediments below 12 inches in the pond will have to be characterized and/or sediment remediation goals selected.

6. The remedy for this AOC must include a comprehensive creek monitoring plan to include periodic sampling of sediment, surface water, fish and other biotic indicators, both on- and off-base. The purpose of the monitoring program is to evaluate the effectiveness of the creek excavation as well as the various remedies for the landfills and other AOCs along the creek. This will be long term monitoring, **and not limited to a five year period** as indicated here. Of course, should enough successive rounds of sampling demonstrate the remedial goals have been attained, the USEPA and the NYSDEC could be petitioned to reduce or eliminate certain aspects of the monitoring program.

   Of particular concern is the level of PCBs in fish tissue. If monitoring demonstrates that fish tissue concentrations do not decline to an acceptable level (i.e. approaching 0.1 ppm), additional remediation and/or excavation may need to be considered. This goal (i.e., 0.1 ppm in fish tissue) must be included in the PRAP and ROD.

As a final point, please understand that any inferred support for the Air Force's preferred remedial action at either of these sites is not to be construed as New York State's formal approval. Approval of a remedy can only be obtained at the PRAP/ROD stage.

If you have any questions on this matter, please contact me at (518) 457-0549.

Sincerely,

Jonathan Greco
Project Manager
Division of Environmental
Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swerdoski, Reg. 6, Watertown
N. Carrier (Reg. 6, Utica)
L. Hancsak
S. Dimeo

bc: Sal Ervolina
Marsden Chen
file
daybook

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

OCT 16 2000

MEMORANDUM FOR Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

Douglas Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

FROM: AFBCA/DA – Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Contract No. DACW41-94-D-9013, Delivery Order 006, Electrical Power Substation; Former Griffiss Air Force Base; Rome, New York. Submission of Response to USEPA Comments on the Draft Electrical Power Substation Closeout Report and QCSR.

1. Attached are responses to USEPA comments on the Subject Document. The revised closeout report cover, text, tables and figures are included as replacement pages for the draft closeout report.

2. If you have any questions, please contact Cathy Jerrard at 315-330-2275.

Michael F. McDermott
BRAC Environmental Coordinator

Atch: As noted

cc: Mr. William Ebersbach, USACE, NY District
Mr. Kirk Boese, USACE, KC District
Mr. David Stahl, IT Corporation
Mr. Joseph Wojnas, USACE, NY District

Final Closeout Report
Electrical Power Substation
USEPA Comments and IT Corporation Responses

May 31, 2000

I. GENERAL COMMENTS

1. The closure report describes the interim remedial actions taken at the Electrical Substation (EPS) Area of Concern (AOC) to address surface and subsurface soil contamination that was identified during the Remedial Investigation (RI) of this AOC. The cleanup target levels for total PCBs were <25 ppm for the area inside the EPS, and <1 ppm for surface soil and <10 ppm PCBs for subsurface soil (> 10 inches below ground surface; bgs) outside the fenced EPS area. These cleanup levels meet the Toxic Substance Control Act (TSCA) cleanup levels for surface and subsurface soils (CFR 761.125).

2. Previous discussions have indicated that storm water drainage from the EPS could be a continuing source of contamination into Three-Mile Creek. However, the closeout report did not address this concern. Please note, without sufficient information indicating that Three-Mile Creek will not be impacted from the EPS, closeout of the EPS is impossible.

IT Response: Currently 1 to 2 feet of crushed limestone covers areas with highest allowable PCB concentrations (< 25 ppm within the EPS fence) preventing migration of contaminated soil outside of the EPS fence line. Other areas within the EPS site may contain PCBs up to 1 ppm on the surface. These areas have been graded and revegetated with grass to prevent erosion. There are no storm water catch basins present within the EPS area that would convey soil with storm water runoff during rain events. A six-inch abandoned storm drain runs below the EPS, terminating at Three-Mile Creek. There was no flow from the discharge point during observed rain events.

II. SPECIFIC COMMENTS

3. **Section 1.1, page 1-2, 3rd** . Three-Mile Creek flows into the New York State Barge Canal, not into Six-Mile Creek. Also, revise and include the information that the west and east branches of Three Mile Creek are located to the south and east of the EPS area, respectively.

IT Response: Section 1.1, P.1-2 has been revised accordingly.

4. **Section 1.6, page 1-4**. The report includes photo documentation for two out of four excavation areas only. All available photos for the excavation areas should be provided.

IT Response: The photos show excavation in three of the four areas including: Three Mile Creek (photos 1 and 2), B27SB boring location (photos 3 through 6), and the east fence line (photos 7 and 8). No photos are available of the west fence line excavation.

No additional photos have been provided.

5. **Section 2.2, page 2-2, 1st**. The lateral extent of excavation at the EPS AOC, as defined in the USACE Scope of Work was based on contamination documented in the RI report. One localized area of PCB contamination was detected during the RI to the east of the EPS, near the east branch of Three-Mile Creek. This isolated area was not included in the EPS remedial action, but this report should discuss this PCB hot spot and indicate whether and how the Air Force plans to address this particular area.

IT Response: Level II field screening performed on sample B27SB36 collected near the east branch of Three Mile Creek indicated that soil from 5cm to 1 ft BGS contained PCBs at 3.767 PPM and soil from 2 to 3 feet BGScontained PCBs at 2.134 ppm. A split sample collected from the upper interval was analyzed by an off site lab by gas chromatography and showed no detectable PCBs. The field screening was determined to be a false positive and no excavation was required in this area.

No revision to the text is required.

6. **Section 2.2, page 2-2, 3rd**. Based on the PCB levels in the confirmation samples, additional hand-excavation beyond the initial excavation limits was performed. The report should identify these areas, the depths of additional excavation and whether additional confirmation samples were collected. Areas of additional excavation and additional confirmation samples (if any) should be identified in Figure 2.

IT Response: Additional hand excavation was performed by IT within the EPS to a depth of two feet BGS in a 5x5 foot area between side wall samples EPS-CS-106-SW and EPS-CS-108-SW shown on Figure 2. This excavation was performed to remove PCB contaminated soil (56 ppm) shown in sample EPS-CS-106-SW collected from the south sidewall of the original excavation. Post excavation confirmatory samples EPS-CS-107-EB1, EPS-CS-108-SW, and EPS-CS-109-SW showed that PCB cleanup levels had been attained.

Section 2.2 page 2-2 has been revised to clarify the additional excavation performed.

7. **Section 2.3, page 2-3**. Revise the first sentence in this section to include the goal of verifying the attainment of the subsurface soil cleanup criterion.

IT Response: Section 2.3 page 2-3 has been revised to include subsurface soil.

8. **Section 2.3, page 2-3, 3rd**. The collection depth of confirmation samples is given as 0 to 6 inches below ground surface for sidewall samples, and 0-6 inches below the excavation floor for excavation bottom samples. However, some of the sampling depths in the table in Figure 2 and several sampling logs in Appendix A do not reflect these standard depths. Review and reconcile as necessary.

IT Response: Several sidewall samples were collected 0-6" from the bottom of the excavation including: EPSCS-105-SW, EPS-CS-106-SW, EPS-CS-108-SW, EPS-CS-109-SW. This non-conventional sample

interval was selected based on the concentration of PCBs found in excavation bottom samples of the grids surrounding hot spot (EPS-CS-42). PCB contamination at 3 feet BGS (81 ppm) was higher than PCBs detected at the surface of the nearest investigative sample points (82, 83, and 51). Based on this observation it appeared that contamination was decreasing at the surface but was still above action levels at 3-foot interval. To avoid missing the sub surface contamination in the sidewall samples mentioned above, the sample interval was shifted to deeper depths.

Sample depths on Figure 2 have been reconciled with the depths indicated on the sample collection logs. Section 2.3 of the text has been revised to include the rational for use of non-standard sampling depths.

9. **Section 2.4, page 2-3**. The information in the sampling log indicates that the disposal sampling did not follow the procedures in TSCA (§761, Subpart R). This should be indicated in the text.

IT Response: The text has been revised to indicate that stockpile sampling was initiated prior to June 29, 1998 when the procedures in TSCA (761, Subpart R). took effect. Stockpile sampling for disposal was performed in accordance with the approved sampling and analysis plan and landfill acceptance criteria.

10. **Section 2.4, page 2-4, 1st** . Revise the listing of analytical methods to indicate that PCBs were analyzed using USEPA method 8082. The Pesticide/PCBs analysis method number in Table 3.2-1, Appendix E, should also be revised.

IT Response: The method numbers listed in Section 2.4, page 2-4 have been revised accordingly. The Pesticides/PCBs analysis method number has been revised to 8081A/8082 in Table 3.2-1.

11. **Section 2.4, page 2-4**. The analytical data for the non-hazardous stockpile materials should be included as a reference (Table 3.2-2, Appendix E).

IT Response: Section 2.4 of the text has been revised to include a reference to this table.

12. **Section 2.5, page 2-4**. The text maintains that clean and acceptable backfill and topsoil as defined in the USACE Scope of Work (SOW) were obtained from a local borrow source, and that a representative sample had been collected as part of Delivery Order 003 (the Coal Yard Storage Area Intermediate Remedial Action). Backfill and topsoil samples from the borrow source were analyzed in September 1997, during the restoration of the Coal Yard Storage Area. As indicated by the last EPS sampling logs, however, backfilling at the EPS area was not completed before mid-August 1998, almost a year after the sample from the borrow source was analyzed. The text should better explain how this sample result establishes the representativeness and suitability of recently obtained borrow materials from this source.

IT Response: Section 2.5 of the text has been revised to include explanation of the representativeness and suitability of the borrow source material.

13. **Figure 2.** In the PCBs sampling results table, the units *mg/kg* should be replaced with *µg/kg*. The sampling depths for several sidewall samples in this table deviate from the standard sampling depths

for sidewall samples of 0 to 6 inches below ground surface, as well as sampling log information (Appendix A). Several sample identifiers for locations depicted as sidewall samples in the map are missing the sidewall-sample identifier suffix in the table. Following the standard sampling depth for confirmation samples from the excavation bottom, all excavation bottom samples should be listed for an interval, not a fixed depth. Review these discrepancies and correct as appropriate.

IT Response: Figure 2 has been modified as follows:

1) In the "PCB Confirmatory Soil Sample Information" table units of mg/kg have been replaced with µg/kg in the column heading.
2) The suffixes "-EB1" and "-SW" have been added to the appropriate sample IDs on the table to match the nomenclature used on sample collection logs. Note that samples EPS-CS-85 through EPS-CS-94 do not have an "EB1" suffix since they were investigative samples collected prior to excavation.
3) The sample fixed depth designation for excavation bottom samples has been replaced with the sample depth interval.
4) The sample depth on samples EPS-CS-105-SW and EPS-CS-106-SW was revised from (0-6") to (2.5 – 3.0') to reflect the actual interval that was sampled and listed on the sample collection logs.
5) The sample IDs for samples EPS-CS-78-EB1 through EPS-CS-84-EB1 were revised to EPS-CS-78 and EPS-CS-84 respectively to reflect the sample ID listed on the collection logs and in analytical results.

FINAL CLOSEOUT REPORT
INTERIM REMEDIAL ACTION
ELECTRICAL POWER SUBSTATION
FORMER GRIFFISS AIR FORCE BASE
ONEIDA COUNTY, NEW YORK

CONTRACT NO. DACW41-94-D-9013
DELIVERY ORDER 006

PREPARED FOR:

DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
KANSAS CITY, MISSOURI

PREPARED BY:

IT CORPORATION
2790 MOSSIDE BOULEVARD
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May 2000

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List of Acronyms

Acronym	Title
AFBCA	Air Force Base Conversion Agency
BGS	below ground surface
CFR	Code of Federal Regulations
CQC	Construction Quality Control
CQCP	Contractor Quality Control Plan
CQCSR	Chemical Quality Control Summary Report
EZ	Exclusion Zone
IT	IT Corporation
OSHA	Occupational Safety and Health Administration
PAH	polynuclear aromatic hydrocarbon
PCB	polychlorinated biphenyl
ppm	part(s) per million
RA	Remedial Action
RAO	remedial action objective
SAP	Sampling and Analysis Plan
SOW	Scope of Work
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plan
SVOC	semivolatile organic compound
TAL	Target Analyte List
TCLP	Toxicity Characteristic Leaching Procedure
TSCA	Toxic Substance Control Act
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

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Executive Summary

This Final Closeout Report details the interim remedial action (RA) activities performed by IT Corporation (IT) at the Electrical Power Substation (EPS) located on the former Griffiss Air Force Base (Griffiss), Oneida County, New York. The activities were performed under Contract No. DACW41-94-D-9013, Delivery Order No. 006 during the period of April 1998 through January 1999.

IT executed this interim RA which included excavation, collection and analysis of confirmatory soil and waste characterization samples, site restoration compatible with the projected future land use, and transportation and disposal of contaminated soil. The following sections provide a summary of activities at the EPS.

Surface and subsurface soil containing polychlorinated biphenyls (PCBs) at concentrations greater than the site-specific cleanup goals were excavated, loaded onto tarped trucks and stockpiled at the alert apron until waste characterization sample results were evaluated to determine the ultimate disposal method. All soil stockpiles (total weight 85 tons) were characterized as non-hazardous and were transported to Seneca Meadows Inc. non-hazardous landfill located in Waterloo, New York for disposal. Post excavation confirmatory samples were collected and results were compared to Air Force clean-up goals and applicable state and federal guidelines. IT submitted the results to the U.S. Army Corps of Engineers (USACE) and Air Force Base Conversion Agency (AFBCA). The AFBCA reviewed confirmatory sample results on a case-by-case basis with the federal and state regulatory agencies.

Pre- and postexcavation topographic surveys were conducted to record the lateral extent and depth of the final excavation. Clean backfill material (as defined in USACE scope of work) was placed in the excavation and compacted to bring the excavations back to approximate preconstruction grades. Site restoration activities were then completed with the placement of topsoil, seed, fertilizer, shrubbery, and mulch outside of the substation fence and with gravel within the fenced area.

1.0 Introduction

This Final Closeout Report has been prepared by IT Corporation (IT) for the U.S. Army Corps of Engineers (USACE), Kansas City District. This report presents a summary of the activities completed at the Electrical Power Substation (EPS) located on the former Griffiss Air Force Base (Griffiss), in Oneida County, New York. This work was performed under the Preplaced Remedial Action Contract No. DACW41-94-D-9013, Delivery Order No. 006 from April 1998 to January 1999. The report has been prepared using a chronological format that spans the project from mobilization to demobilization. The report includes a description of the following activities or phases of work:

- Mobilization
- Site preparation
- EPS excavation
- Post excavation confirmatory sampling
- Investigative sampling
- Waste characterization and disposal
- Site restoration
- Topographic survey and as-built drawing preparation
- Final inspection and demobilization.

Section 2.0 of this Final Closeout Report provides a chronological overview of the interim remedial action (RA). Section 3.0 describes the results of the final inspection and the demobilization activities. Section 4.0 summarizes the topographic survey documentation of the initial site grade, extent of excavation, and restoration of grade. Section 5.0 summarizes health and safety practices that were followed and any incidents that were recorded. Section 6.0 presents conclusions and recommendations pertaining to this interim RA. The appendices to the Final Closeout Report contain the field work documentation, photographs and analytical data generated during the project.

1.1 Site Description and Background

Griffiss is located in Oneida County in central New York State approximately 50 miles northeast of Syracuse in the city of Rome. The EPS is located within the Former Griffiss Air Force Base on the southeast corner of the Ellsworth Road and Wright Drive intersection.

Since the installation of Griffiss AFB, the EPS has served as an electrical unit to relay power to various facilities at the base. The facility has been home for electrical transformers containing polychlorinated biphenyl (PCB) dielectric fluids, some of which have leaked and contaminated the soil. The transformers are located within the fenced enclosure on concrete pads. Soil outside the fenced area along Ellsworth Road, north of the drainage swale leading to three-mile creek was also contaminated with PCBs.

Within the EPS, the topography is flat and the ground consists of up to 16 inches of crushed stone over native soil on top of an electrical grounding grid located at 16-24" below ground surface (BGS). The west and east branches of Three Mile Creek are located to the south and east of the EPS respectively. The surface water drainage from the EPS area enters the east branch of Three-Mile Creek, which flows into the New York State Barge Canal.

1.2 Remedial Action Objectives

Previous investigations of the EPS revealed high concentrations of PCBs in surface soil within and adjacent to the EPS and between Ellsworth Road and the east branch of Three Mile Creek. The remedial action objective for the EPS was to reduce the potential exposure to PCBs by removing and disposing of PCB-contaminated soils to a predetermined depth.

1.3 Scope of Work

The SOW for the interim RA was comprised of the following components:

- Mobilization
- Initial survey
- Preconstruction conference
- Site preparation

- Excavation of contaminated soils
- Stockpiling of contaminated soils
- Confirmatory sampling and analyses of the excavation
- Postexcavation survey
- Characterization sampling of stockpiled contaminated soils
- Backfill of excavated areas
- Transportation and disposal of contaminated soils
- Site restoration
- Final survey
- Demobilization
- Transportation and disposal of stockpiled contaminated soils
- Preparation of Final Closeout Report
- Project closeout.

1.4 Health and Safety

All work activities completed during this interim RA were performed in accordance with the Site Safety and Health Plan Addendum (SSHP). The SSHP was written to conform with current Occupational Safety and Health Administration (OSHA) guidelines as specified in 29 CFR 1910.120, contract requirements, and IT policies and procedures. The SSHP was prepared specific to the site conditions and to conform to the USACE Safety and Health Requirements Manual, EM385-1-1. The SSHP defined the health and safety requirements and described the protocols to be followed during all work activities and the hazards involved. Upon mobilization and prior to initiating work activities, field personnel read and signed the SSHP and received site-specific field training. All field operations were performed in accordance with the SSHP. The SSHP was developed and enforced by the Safety and Health Manager and implemented by IT Site Safety and Health Officer (SSHO) for daily operations.

IT subcontracted Rossi/Pete Associates of Utica, NY, electrical engineering professionals, to evaluate potential electrical hazards and prepare activity hazard analyses for excavation activities within the energized substation. As a result of Mr. Thomas Rossi, PE's findings and concerns during his site visit, a coordination meeting was conducted on 31 March 1998, involving members of Niagara Mohawk Power, HARZA, USACE, AFBCA, and IT Corporation. Safety

issues pertaining to electrical shock hazards were the primary focus of the meeting. As a result of this meeting, IT selected the option of subcontracting the work inside the energized substation to Op-Tech Inc. of Syracuse NY, a qualified contractor having previous experience performing PCB removals within energized substations for Niagara Mohawk Power. Op-Tech submitted a safety plan to IT prior to mobilization. This safety plan was reviewed by IT Corporation and signed by Op-Tech employees during the safety briefing as part of the preparatory inspection for this definable feature of work. All excavation was completed without incident or power outage.

A representative from Niagara Mohawk Power was on site during all excavation activities within the energized EPS as agreed to during the coordination meeting.

1.5 Contractor Quality Control Plan

The Contractor Quality Control Plan (CQCP) presented the overall quality program developed for the interim RA. The program verified, through a system of inspections and tests using scientific and engineering principles and practices that the interim RA met or exceeded the criteria outlined in the specifications. A three phase inspection system - Preparatory, Initial, and Follow-up was developed and implemented to verify the quality of work performed in compliance with the specification requirements for all definable features of work. Daily Construction Quality Control reports (CQC) were prepared to document on-going activities including tests performed and test results. The CQCP was implemented by the Quality Control Representative, who was on site during the interim RA to address quality-related issues.

1.6 Field Documentation

The following field documentation was completed, as required, during the interim RA and is presented in Appendix A of the Final Report:

- Inspection Forms (Preparatory, Initial, Final)
- Nonconformance Reports
- Sample Collection Logs
- Field Work Variance Forms.

A selection of site photos is included in Appendix B.

2.0 Interim Remedial Action

The interim RA included all activities which were conducted to prepare the site and complete the RAO for the EPS. This section provides a chronological discussion of all activities.

- ***Site Mobilization and Setup***

A Pre-Construction Meeting was held on April 4, 1998 with representatives from the Air Force Base Conversion Agency (AFBCA), USACE, and IT. Meeting minutes are presented in Appendix A. On 20 April 1998, the IT crew began remedial action activities at the EPS. The crew was already on-site working on the Landfill Consolidation project. The support area with the office, break and decontamination trailers was previously erected during the coal storage yard project.

The first work activity performed as part of the interim RA was site setup. The primary purpose of site setup was to establish the field facilities necessary to accomplish the interim RA. Site setup activities included:

- Identifying and designating the exclusion, contamination reduction, and support zones
- Performing an inventory and inspection of equipment and materials, including health and safety related items, to verify readiness to perform the interim RA.

2.1.1 Erosion and Sedimentation Control Structure Installation

Silt fence was installed downgradient of the proposed limits of excavation at the Three-Mile Creek culvert prior to initiating excavation activities.

2.1.2 Protection of Site Features and Utility Markout

A utility markout was performed by both the base caretaker and representatives of Niagara Mohawk Power to locate known buried utilities prior to excavation. A digging permit or "Work Clearance Request No. 98319 was received on April 15, 1998 from the AFBCA. Utilities

identified included steam lines, sanitary and storm sewer lines, water lines, and live electrical lines. Utility locations were marked on the ground surface with fluorescent paint.

Excavation around monitoring wells, building foundations, roadways, and storm sewer manholes was done to maintain the structural integrity of these features. Well heads and manholes were marked out with caution tape.

Equipment operators were briefed daily on the locations of known site features which needed to be protected and excavation plans were designed to maintain their integrity.

2.2 EPS Remediation

The RAO for the EPS was met by removing contaminated soils using a small excavator, a Bobcat and shovels. The lateral limit of excavation was defined in the USACE Scope of Work (SOW) based on contamination documented in the *Griffiss Air Force Base Remedial Investigation Draft Final Primary Report Volume 7 Electrical Power Substation Area of Concern* (Law Engineering and Environmental Services, Inc., December 1996. These limits were expanded as directed in Serial No. 006 [Contracting Officer's Directives, Appendix A] and as directed by the USACE during progress meetings 17-Revision 1 and 18).

IT performed all excavation activities outside the fenceline of the EPS. Because the substation would not be de-energized during excavation activities within the substation, IT subcontracted Op-Tech Environmental Services Inc., a specialist in electrical hazards to perform the removal action under the supervision of IT and Niagara Mohawk Power. IT trucked all excavated soil from the EPS to the soil staging area located on the alert apron. Soils were initially excavated to the limits required in the SOW and confirmatory soil samples were collected.

IT performed additional excavation within the substation by hand beyond the initial limits based on evaluation of PCB concentrations in confirmatory soil samples. Additional hand excavation was performed by IT within the EPS to a depth of two feet BGS in a five by five-foot area between sidewall samples EPS-CS-106-SW and EPS-CS-108-SW shown on Figure 2. This excavation was performed to remove PCB contaminated soil (56 ppm) shown in sample EPS-CS-106-SW collected from the south sidewall of the original excavation. Post excavation

confirmatory samples EPS-CS-107-EB1, EPS-CS-108-SW, and EPS-CS-109-SW showed that PCB cleanup levels had been attained. Depending on the location and depth of the confirmatory samples, PCB results were compared to three Toxic Substance Control Act (TSCA) cleanup levels. Surface and subsurface (> 10" BGS) soil cleanup levels of <1 ppm and <10 ppm were achieved outside of the EPS fence line while a cleanup level of < 25 ppm for restricted access was achieved inside the EPS. Figure 2 shows the extent of excavation and presents a list of confirmatory soil sample depths and total PCB concentrations.

A total of 85 tons of soil was excavated and removed from the EPS excavation.

2.2.1 Soil Excavation and Confirmatory Sampling Results

Confirmatory sampling was performed as the excavation activities were completed. The samples (including QA samples) were submitted to Kemron Analytical Service's Marietta Ohio facility and analyzed for PCBs by EPA method 8082. The analytical results were received from the contract laboratory, reviewed, formatted, and forwarded by IT to the AFBCA and USACE.

The USACE directed IT to perform additional excavation based on confirmatory soil sample PCB results of 5 samples collected adjacent to the east fence line, including EPS-CS-42, EPS-CS-101, EPS-CS-106-SW, EPS-CS-78, and EPS-CS-80.

2.3 Postexcavation Confirmatory Sampling

The objective of the postexcavation confirmatory sampling in the EPS was to collect sufficient data to verify and document that cleanup criteria in remaining surface and subsurface soil had been met. Field sampling activities were performed to achieve this objective as described in the SAP. All confirmatory samples were analyzed for PCBs using USEPA Method 8082.

A Chemical Quality Control Summary Report (CQCSR) is provided in Appendix E. This report summarizes analytical results and discusses the data quality evaluation of all confirmatory soil sampling results.

Confirmatory samples were collected from a uniform sampling grid and from every 50 linear foot of sidewall as noted in Figure 2. Sampling depths were based on 3 types of samples:

1) Investigative samples were collected from 0-6" BGS.
2) Post excavation sidewall samples were collected from 0 to 6 inches BGS at all sidewall locations except selected grid locations within the EPS where it was determined by investigative sampling that maximum PCB concentrations would be found below the surface. Sample locations were adjusted to 0-6" above the excavation floor in these locations.
3) Excavation bottom samples were collected 0 to 6 inches below the excavation floor.

All sample locations and postexcavation PCB results are presented in Figure 2. All sampling results are presented in Appendix E.

2.4 Waste Characterization and Disposal

Three soil stockpiles totaling approximately 85 cubic yards were accumulated during the interim RA at the EPS. To determine disposal requirements, composite sampling of each stockpile was performed in the staging areas in accordance with the approved sampling and analysis plan and landfill acceptance criteria. Sampling methodology was selected and implemented prior to promulgation of sampling requirements contained in 40 CFR Part 761 Subpart R. A representative 5 point composite sample of the material in each stockpile was obtained utilizing a clean stainless steel trowel. Sampling equipment was decontaminated between stockpiles to minimize the potential for cross contamination. Each of the stockpiles was analyzed for the following parameters:

- VOCs (USEPA Method 8260A)
- SVOCs (USEPA Method 8270A)
- PCBs/Pesticides (USEPA Method 8082/8081A)
- TAL Metals (USEPA Method 6000/7000 Series)
- PAHs (USEPA Method 8310).
- Herbicides (USEPA Method 8151).

In addition to the above listed parameters, the following suite of parameters was required by the landfill for disposal:

- Ignitability (USEPA Method 1010)
- Corrosivity (USEPA Method 1110)
- Reactivity (Method 8.3 of USEPA SW-846)
- Toxicity Characteristic Leaching Procedure (TCLP) (SW-846 Method 1311)
- Lead (Method 6010A/3050A).

The 3 stockpiles were sampled and characterized as non-hazardous, non-DOT regulated material. Analytical results for non-hazardous stockpile materials are presented in Table 3.2-2 of Appendix E

IT procured the service of Fred Burrows Excavation and Trucking, Inc., a permitted non-hazardous waste transporter to perform the transportation and disposal of non-hazardous soils contaminated with PCBs. All non-hazardous soil was profiled and trucked to Seneca Meadows Inc.'s Waterloo, New York landfill for disposal. A total of 85 tons of non-hazardous soil were disposed. An example manifest is located in Appendix D.

2.5 Site Restoration

IT began site restoration activities by direction from the USACE after the postexcavation surveys had been completed. Restoration at the EPS outside of the fenced area IT included placement of clean backfill, the placement of topsoil, and revegetation. Restoration within the fenced area included placement of clean backfill and placement of crushed stone. Lanz Construction, a local borrow source, was selected to provide clean and acceptable backfill material as defined in the USACE Scope of Work (SOW). Backfill suitability was verified by chemical and geotechnical analysis results. A representative sample named Borrow-01" was collected from Lanz Construction s borrow pit located on Rickmeyer Road and submitted during Delivery Order 003 activities. Prior to material delivery, IT verified by visible inspection during a site visit that the source of backfill material was from the same working face of the borrow pit as the material sampled during delivery order 003. Once approved for use, backfill was spread and compacted in 12-inch lifts to restore the excavation to its previous grade. Two to four inch crushed stone was placed in a four-inch layer within the fenced area. American Landscaping performed Hydroseeding along Ellsworth Road.

2.6 *Heavy Equipment Decontamination and Sampling Results*

The backhoe and dump truck exiting the Exclusion Zone (EZ) were decontaminated if there was a possibility that the equipment was in contact with contaminated soil. The dump truck bed was decontaminated and wooden side boards removed and replaced if necessary at the end of each day. Decontamination water was collected and transferred to the 20,000-gallon frac tank. Decontamination of Op-Tech's equipment was accomplished in the support zone using sorbent pads and cleaning solution. No rinsate was generated.

3.0 Final Inspection and Demobilization

A field final inspection was conducted on 9/30/98 following completion of backfilling and site restoration activities at the EPS. Two punch list items remained to complete including the transportation and disposal of 85 tons of non-hazardous soil and treatment and disposal of decon water accumulated during the project. Transportation and disposal was completed on 18 January 1999. The decon water was transferred to IT's frac tank for storage. The IT office trailer and crew demobilized on 2 February 1999.

4.0 Surveys and As-Built Drawings

Lafave, White & McGivern, L.S., P.C., land surveyors performed two topographic surveys to document limits of excavation and final grade. IT prepared two drawings incorporating data collected in these topographic surveys performed on the following dates:

- Figure 2, Limits of Excavation (June 11, 1998)
- Figure 3, Final grading (November 5, 1998).

5.0 Health and Safety Requirements

The health and safety requirements for the project followed the guidelines set forth in the project SSHP. There were no lost time accidents on this project. Documentation of safety and health practices conducted during the project are located in Appendix C in the Safety and Health Phase Out Report.

6.0 Conclusions

IT and their subcontractors completed all work in accordance with the remedial action objectives, specifications, and work plans. The PCB cleanup goals were met throughout the substation and surrounding areas in accordance with the intended land use.

Table 3.2-1
Electrical Power Substation
Waste Characterization
Sample Listing and QA/QC Cross Reference

Sampling Date	Sample Ids	Work Order Nos	Matrix	Lab	Description	VOCs (8260a)	SVOCs(8270b)	PAHs(8310)	Herbicides 8151	PEST/PCBs(8081A/8082)	TAL METALS (6000/7000)	TCLP lead
5/20/98	WC-19	L9805399	Soil	Kemron	Soil Stockpile from Eps Excavation	√	√	√	√	√	√	
7/14/98	WC-20	L9807246 / L9807480	Soil	Kemron	Soil Stockpile from Eps Excavation	√	√	√	√	√	√	√
7/16/98	WC-21	L9807313	Soil	Kemron	Soil Stockpile from Decon Pad Materials	√	√	√	√	√	√	

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

MEMORANDUM FOR Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

Douglas Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

FROM: AFBCA/DA – Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Contract No. DACW41-94-D-9013, Delivery Order 008, Area of Interest 66; Former Griffiss Air Force Base; Rome, New York. Submission of Response to USEPA Comments on the Area of Interest 66 Closeout Report and QCSR.

1. Attached are responses to USEPA comments on the Subject Document. The revised closeout report cover, text, tables and figures are included as replacement pages for the draft closeout report.

2. If you have any questions, please contact Cathy Jerrard at 315-330-2275.

Michael F. McDermott
BRAC Environmental Coordinator

Atch: As noted

cc: Mr. William Ebersbach, USACE, NY District
Mr. Kirk Boese, USACE, KC District
Mr. David Stahl, IT Corporation
Mr. Joseph Wojnas, USACE, NY District

Draft Closeout Report
Area of Interest 66
USEPA Comments and IT Corporation Responses

May 31, 2000

General Site Comments

1. **Unexploded ordnance (UXO) was discovered during excavation; however, confirmation samples were not analyzed for explosives. It is recommended that any groundwater samples collected within or just downgradient of AOI 66 be tested for explosive constitutes to confirm the UXO did not adversely impact the area.**

IT Response: The unexploded ordnance items found in the AOI 66 (50mm and 105mm projectile casings) were empty and did not contain any visible propellant such as RDX, HMX, or other nitro-aromatics. These items were classified as unexploded ordnance because some contained a small primer cap no larger than 1 inch in diameter weighing no more than several ounces. This primer cap is sealed and would not be a significant source of contamination even if it were ruptured. The visible evidence observed during recovery indicated that the shell casings were buried empty. Since no traces of propellant were visible in or around the UXO upon recovery, no sampling for explosives is required.

Section 2.3 of the text has been revised to include this rationale.

2. **Based on sample results from boring AOI66-CS-12 and the presence of the debris pile, it appears contamination may be present underneath the northeast corner of the concrete pad. Additional actions are not recommended because the concrete pad acts as a cap and the depth of groundwater is approximately 10 to 12 feet BGS. However, any future removal of the concrete pad or excavation in the area should take into account this possible area of contamination.**

IT Response: Please note, AOI66-CS-12-SWC is actually a sidewall sample collected from the postexcavation south sidewall beneath the concrete footer of the coal pad at AOI 66. Additional information about the debris layer identified in sample 12-SWC is provided in Section 2.2.2 of the report and in specific comment 1 of this response to comments.

3. **The site-specific clean-up goals presented for AOI 66 are, in most instances, greater than 50 times the state recommended goals. The report notes that site-specific clean-up goals were presented in the "Scope of Work/Specifications, Interim Removal Action, Area of Interest 66." These values were not approved by EPA or NYSDEC. Therefore, it is recommended these site-specific clean-up goals be removed from the report.**

IT Response: Cleanup standards listed in Appendix E, Table 3.1-2, under column heading "State recommended Cleanup Level" (TAGMs) were used for screening purposes to flag contaminants requiring further evaluation of their need for cleanup. Further evaluation included comparison to "Site Specific Cleanup Goals", regional background levels, and an evaluation of a contaminant's

pervasiveness. Following further evaluation by United States Environmental Protection Agency (USEPA), New York State Department of Environmental Conservation (NYSDEC), United States Army Corps of Engineers (USACE), and Air Force Base Conversion Agency (AFBCA), no excavation beyond the quantities defined in the original Scope of Work was required based on contaminants other than PCBs. Although PCBs were the primary contaminant, all of the analytes were reviewed for decisions on excavation extent.

No revision to the text is required.

Specific Comments

1. **Section 2.2.2, page 2-5, 2nd paragraph. This paragraph discusses a debris pile discovered underneath the concrete pad at AOI 66. The last sentence states analytical results from boring AOI66-EB-17 showed no contamination above clean-up goals. This statement leads one to believe that the debris pile contained no contamination. However, boring AOI66-EB-17 is located 10 feet southwest of the debris pile. Sample results from this boring are not necessarily indicative of the debris pile. The last sentence should be removed or expanded to state contamination within this boring is not necessarily representative of the debris pile.**

IT Response: The last sentence in Section 2.2.2 regarding boring AOI66-EB-17 was included to show that the lateral extent of the debris layer ended before reaching this boring location. Sidewall sample AOI66-12-SWC, collected below the coal pad at 4 feet BGS, was the most representative sample of the debris layer. The sample was collected from the south sidewall of the AOI 66 excavation, which was also the northern edge of the debris layer. Analytical results showed that the debris layer contained arsenic, calcium, and copper above background concentrations.

Section 2.2.2 has been revised to include this explanation.

FINAL CLOSEOUT REPORT

INTERIM REMEDIAL ACTION
AREA OF INTEREST 66
FORMER GRIFFISS AIR FORCE BASE
ONEIDA COUNTY, NEW YORK

CONTRACT NO. DACW41-94-D-9013
DELIVERY ORDER NO. 008

PREPARED FOR:

DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
KANSAS CITY, MISSOURI

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List of Acronyms

Acronym	Title
AFBCA	Air Force Base Conversion Agency
AOI66	Area of Interest 66
BCP	below concrete pad
BGS	below ground surface
CFR	Code of Federal Regulations
Chemwaste	Chemical Waste Management, Inc.
CQC	Construction Quality Control
CQCP	Contractor Quality Control Plan
CQCSR	Chemical Quality Control Summary Report
CSYA	Coal Storage Yard Area
DRMO	Defense Reutilization and Marketing Office
EZ	Exclusion Zone
Griffiss	Griffiss Air Force Base
IT	IT Corporation
NYSDEC	New York State Department of Environmental Conservation
OSHA	Occupational Safety and Health Administration
PAH	Polynuclear Aromatic Hydrocarbons
PCB	polychlorinated biphenyl
ppm	part(s) per million
RA	Remedial Action
RAO	remedial action objectives
SAP	Sampling and Analysis Plan
SOW	Scope of Work
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plan
SVOC	semivolatile organic compound
TAL	Target Analyte List
TCLP	Toxicity Characteristic Leaching Procedure
µg/wipe	microgram(s) per wipe
µg/100 cm^2	microgram(s) per 100 square centimeters
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

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Executive Summary

This Closeout Report details the interim remedial action (RA) activities performed by IT Corporation (IT) at the Area of Interest 66 (AOI66) located on the former Griffiss Air Force Base (Griffiss), Oneida County, New York. The activities were performed under Preplaced Remedial Action Contract No. DACW41-94-D-9013, Delivery Order No. 008 during the period of September 14, 1998 through August 13, 1999.

IT executed this interim RA which included site preparation, excavation, transportation, and disposal of contaminated soil and debris, unexploded ordinance recovery and disposal; the collection and analysis of confirmatory soil and other environmental samples; the sampling and analysis of exploratory borings within the steam plant coal pad; the completion of a magnetometer survey and identification of anomalies; and site restoration compatible with the projected future land use. The following paragraphs provide a summary of these activities.

Site preparation included removal of 375 feet of railway passing through the proposed excavation area. IT subcontracted the railway removal and stockpiled the rails and plates for re-use while the ballast, was disposed of with the contaminated soil. After removal, the rail ties were sampled for PCBs. Noncontaminated ties were transported off site for reuse. Contaminated ties were disposed of as nonhazardous waste.

IT excavated surface and subsurface soil and debris containing contaminants at concentrations greater than the site-specific cleanup goals. IT loaded soil and debris onto tarped trucks and stockpiled the material at the alert apron in polyethylene lined and covered stockpiles.

Soil stockpile waste characterization samples were collected and results were evaluated to determine the ultimate disposal method (either hazardous or nonhazardous landfilling). Of the 2925.4 tons of soil and debris removed, 281.4 tons were characterized as hazardous waste (New York State Waste Code B007) and 2,644 tons were characterized as nonhazardous waste. Hazardous soil/debris was transported to Chemical Waste Management, Inc.'s (Chemwaste) Model City, New York landfill for disposal. Nonhazardous soil/debris was transported to Seneca Meadows Inc.'s nonhazardous landfill located in Waterloo, New York for disposal.

IT unexpectedly unearthed two (2) 50 mm shell casings during soil excavation activities at AOI 66. As a result, the area was fenced off and no work continued in the area until an addendum to the Work Plan detailing the required steps to screen the remaining excavation activities was approved. Two trained UXO technicians were mobilized to oversee excavation activities within AOI 66. One technician was posted at the excavation inspecting each excavator bucket of soil. If any suspect UXO was identified, the area was cleared and the UXO technician identified the object and determined if the object was active or inert. A second UXO technician was posted at the stockpile area to inspect soils as they were deposited into the stockpiles.

Excavation was stopped when visual inspection and confirmatory sampling indicated that all UXO, debris, and contaminated soil had been removed. Post excavation confirmatory samples were collected and results were compared to Air Force clean-up goals and applicable state and federal guidelines. IT submitted the results to the U.S. Army Corps of Engineers (USACE) and Air Force Base Conversion Agency (AFBCA). The AFBCA reviewed confirmatory sample results on a case-by-case basis with the federal and state regulatory agencies. Following removal of known and/or visible contamination and debris, investigative techniques were employed to further characterize the site.

Investigative techniques used on site included soil borings, magnetometer survey, and exploratory trenching. Three exploratory borings located at the eastern portion of the concrete coal storage pad were completed and samples were taken and analyzed for confirmatory soil parameters to complete the subsurface investigation started during the Coal Storage Yard Area project. IT was directed by the USACE to perform a magnetometer survey of the excavation area to determine if any buried UXO remained. The major anomalies identified during the magnetometer survey were identified by exploratory trenching, revealing no additional UXO.

Review of magnetometer survey, exploratory boring, and exploratory trenching results covering the entire site confirmed that debris and contamination removal was complete. The AFBCA received concurrence from both agencies before requesting the USACE to direct IT to backfill the excavation.

Pre- and postexcavation topographic surveys were conducted to record the lateral extent and depth of the final excavation.

USACE approved, clean backfill material was placed in the excavation and compacted to bring the excavations back to approximate preconstruction grades with the exception of the rail road alignment. Several layers of crushed stone were placed and compacted over backfill as sub-ballast followed by a layer of ballast to rebuild the 375 foot long railroad spur running through the site. Site restoration activities were then completed with the replacement of the railroad and concrete skid pad, placement of topsoil, seed, fertilizer, and mulch.

1.0 Introduction

This Closeout Report has been prepared by IT for the USACE, Kansas City District. This report presents a summary of the activities completed at AOI 66 located on the former Griffiss Air Force Base, in Oneida County, New York. The activities were performed under Preplaced Remedial Action Contract No. DACW41-94-D-9013, Delivery Order No. 008 during the period of September 14, 1998 through August 13, 1999. The report has been prepared using a chronological format that spans the project from mobilization to demobilization. The report includes a description of the following activities or phases of work:

- Site mobilization and setup
- Excavation
- Postexcavation confirmatory sampling
- UXO screening
- Water collection
- Magnetometer survey
- Waste characterization and disposal
- Investigative boring sampling and analysis
- Site restoration
- Heavy equipment decontamination
- Topographic survey and as-built drawing preparation
- Final inspection and demobilization.

Sections 2.0 and 3.0 of this Closeout Report provide a chronological overview of the interim remedial action (RA) and remedial investigation activities performed, respectively. Section 4.0 describes the results of the final inspection and the demobilization activities. Section 5.0 summarizes the topographic survey documentation of the initial site grade, extent of excavation, and restoration of grade. Section 6.0 summarizes health and safety practices which were followed and any incidents which were recorded. Section 7.0 presents conclusions and recommendations pertaining to this interim RA and remedial investigation. The appendices to the Closeout Report contain the field work documentation, photographs, analytical data, and an example of waste manifests generated during the project.

1.1 Site Description and Background

Griffiss is located in Oneida County in central New York State approximately 50 miles northeast of Syracuse in the city of Rome. AOI 66 consists of the concrete coal storage pad and

surrounding grassed area located east of the steam plant presented on Figure 1 (Photo 1). This site was identified during the Area of Interest project screening process. Based on review of aerial photographs, it was determined that the former Defense Reutilization and Marketing Office (DRMO) storage area extended south of the Coal Storage Yard Area (CSYA) Area of Concern boundary. Exploratory borings were sampled during the CSYA remedial action in 1997. Over 25% of the 5 acre site is covered by the concrete coal pad, while the remainder is grassed with relatively flat topography. The topography is generally flat with approximately 3 to 4 feet of relief over the site. The surface water drainage from this area enters Rainbow Creek, which flows to the northeast ultimately draining into Six Mile Creek. A 375 foot railroad spur runs through the northern portion of the site.

1.2 Remedial Action Objectives

Data collected in 1997 from exploratory borings located throughout AOI 66 and post-excavation confirmatory soil sidewall samples from the south sidewall of the CSYA excavation were used as the basis for the remedial action objectives (RAO) for AOI 66. The RAO is to reduce the exposure to contaminants to acceptable levels through excavation and removal of contaminated soil and debris.

1.3 Scope of Work

The Scope of Work (SOW) for the interim RA was comprised of the following components:

- Site Mobilization and Setup
- Excavation
- Postexcavation confirmatory sampling
- Water collection
- Waste characterization and disposal
- Investigative boring sampling and analysis
- Site restoration
- Heavy equipment decontamination
- Topographic survey and as-built drawing preparation
- Final inspection and demobilization.
- Preparation of Final Closeout Report
- Project closeout.

The following components were added during the course of the remedial action as described and approved by Field Work Variances.

- Magnetometer Survey for buried metallics
- UXO Screening

IT provided all labor, supervision, equipment, materials, and transportation necessary to perform this interim RA.

1.4 Project Documents

Prior to mobilization, IT prepared and submitted several project documents to present proposed field activities and serve as guidance documents throughout the field activities. These documents were approved by the USACE prior to mobilization. The following sections detail each of the documents.

1.4.1 Site Health and Safety Plan Addendum

The Site Safety and Health Plan (SSHP) was written to conform with current Occupational Safety and Health Administration (OSHA) guidelines as specified in 29 CFR 1910.120, contract requirements, and IT policies and procedures. The SSHP was prepared specific to the site conditions and to conform with the USACE Safety and Health Requirements Manual, EM385-1-1. The SSHP defined the health and safety requirements and described the protocols to be followed during all work activities and the hazards involved. Upon mobilization and prior to initiating work activities, field personnel read and signed the SSHP and received site-specific field training. All field operations were performed in accordance with the SSHP. The SSHP was developed and enforced by the Safety and Health Manager and implemented by the IT Site Safety and Health Officer (SSHO) for daily operations. A summary of the project in terms of health and safety practices and incidents is included in the Safety and Health Phase Out Report contained in Appendix C of this document.

1.4.2 Contractor Quality Control Plan

The Contractor Quality Control Plan (CQCP) presented the overall quality program developed for the field activities. The program verified, through a system of inspections and tests using scientific and engineering principles and practices, that the activities met or exceeded the criteria outlined in the specifications. The program of three phase inspections (Preparatory, Initial, and Follow up) was developed and implemented to verify that the quality of work was performed in compliance with the specification requirements for all definable features of work. Daily Construction Quality Control reports (CQC) were prepared to document ongoing activities

including tests performed and test results. The CQCP was implemented by the Quality Control Representative, who was on site to address quality-related issues.

1.4.3 Sampling and Analysis Plan Addendum

The Sampling and Analysis Plan (SAP) was broken into two separate documents, the Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP). The FSP contained technical detail and direction for field personnel to understand the sampling procedures and requirements, while the QAPP contained direction and detail for analytical laboratory personnel including methods, detection limits, QC requirements, and data quality objectives.

1.4.4 Work Plan Addendum

The Work Plan presented the proposed methods to be utilized during the remedial action. This document served as guidance for the field crew during implementation of field activities. The site superintendent was responsible for adherence to this document.

1.5 Field Documentation

The following field documentation was completed, as required, during the interim RA and is included in Appendix A of this document.

- Inspection Forms (Preparatory, Initial, Final)
- Nonconformance Reports
- Sample Collection Logs
- Field Work Variance Forms
- Visual Classification of Soils
- Geotechnical Sample Results

2.0 Interim Remedial Action

The interim RA included all activities which were conducted to prepare the site and complete the RAO for AOI 66. This section provides a chronological discussion of all activities.

2.1 Site Mobilization and Setup

A pre-work conference was held on September 9, 1998 with representatives from the Air Force Base Conversion Agency (AFBCA), USACE, and IT. On September 14, 1998, the IT crew and the railroad subcontractor arrived to begin remedial action activities. The support area with the office, break and decontamination trailers was previously erected during the coal storage yard project.

The first work activity performed as part of the interim RA was site setup. The primary purpose of site setup was to establish the field facilities necessary to accomplish the interim RA. Site setup activities included:

- Delineating and erecting a temporary perimeter fence around the designated work areas.
- Identifying and designating the exclusion, contamination reduction, and support zones.
- Performing an inventory and inspection of equipment and materials, including health and safety related items, to verify readiness to perform the interim RA.

2.1.1 Erosion and Sedimentation Control Structure Installation

Erosion and sedimentation controls included installation of silt fencing, and hay bales.

Silt fence was installed as required, down gradient of all areas to be disturbed prior to any earth moving activities.

Hay bales were installed at the alert apron around all catch basins and drains to prevent soil from being washed into these structures.

2.1.2 Protection of Site Features and Utility Markout

A utility markout was performed by both the base caretaker and representatives of Niagara Mohawk Power to locate known buried utilities prior to excavation. Digging permits or "Work Clearance Requests" were completed by the AFBCA and provided to IT for review prior to excavation. Utilities identified included steam lines, sanitary and storm sewer lines, water lines, and live electrical lines. Utility locations were marked on the ground surface with fluorescent paint.

Excavation around building foundations and storm sewer manholes was done in a manner to maintain the structural integrity of these features. Manholes were marked out with caution tape.

Equipment operators were briefed daily on the locations of known site features which needed to be protected and excavation plans were designed to maintain their integrity.

2.1.3 Construction of Equipment Decontamination Pads

IT constructed one decontamination pad at the east end of the site along the industrial access road. This location varies from the location proposed in the project Work Plan. The final location was approved by the USACE and documented in Field Work Variance Report No. 1. The other pad was previously constructed at the stockpile management area on the alert apron. Decontamination was accomplished using a high pressure washer with water from the Griffiss public water supply.

2.1.4 Dust Control

Water was applied as needed to prevent dust from generating from the excavation area. The pavement was swept as often as necessary to control the spread of dust/debris.

2.1.5 Railroad and Skid Pad Removal

Nicholas P. Giambatista Inc. Railroad Contractors of Syracuse, NY completed railroad removal during IT's site setup activities prior to commencement of any excavation (Photos 2 and 3). Rails, plates and joint bars were stored adjacent to the excavation area while the ties were transported to the alert apron for storage prior to sampling and disposal.

IT demolished the 4" thick concrete skid pad located adjacent to the railroad tracks with a tracked excavator and stockpiled the concrete at the alert apron to be disposed with the soil stockpiles.

2.2 Excavation and Confirmatory Sampling

The RAO for AOI 66 was met by removing contaminated soil, crushed stone, and debris using a tracked mass excavator and replacing the materials with clean fill. The USACE SOW defined the lateral limit of excavation and the vertical limit was defined as the groundwater table. IT subcontracted a New York State Department of Environmental Conservation (NYSDEC) permitted hauler for on-site trucking to transfer soil from the AOI 66 to the soil staging area located on the alert apron. Initially, the soils were excavated to the lines and grades required in the SOW. Soil excavation proceeded from west to east and included removal of 2.5 feet of ballast and sub-ballast material from the railroad alignment (Photos 4 through 8).

Post excavation bottom and sidewall confirmatory samples were collected at locations shown in Figure 2. Sidewall samples located along the concrete coal pad were collected from the excavation bottom at the base of the concrete pad. All other sidewall and bottom samples were collected 0-6" BGS.

Confirmatory samples results were compared to Air Force clean-up goals and applicable state and federal guidelines. IT submitted the results to the USACE and Air Force Base Conversion Agency (AFBCA). The AFBCA reviewed confirmatory sample results on a case-by-case basis with the federal and state regulatory agencies. Once confirmatory sample results were reviewed and it was determined that a sample had contaminant concentrations that exceeded the cleanup levels, or as directed by the USACE, additional material was removed. Removal was completed using the following criteria:

- Lateral excavation required due to sidewall contamination extended 25 feet laterally.
- Vertical excavation was performed in 1 foot increments, or as directed by the USACE.

Upon completion of re-excavation, the location was resampled, and the process repeated until direction by the USACE was given to cease excavation.

2.2.1 Initial Soil Excavation (Round 1) and Confirmatory Sampling Results

The initial round of excavation (Figure 3) removed surface soils to a depth of 1 foot BGS throughout the site with the exception of the railroad alignment and areas of buried debris. The railroad alignment excavation was completed to a depth of 3.5 feet BGS as a result of removing 2.5 feet of ballast and sub-ballast along the railway alignment along with the 1 foot of underlying soil. Buried debris was encountered to a depth of 3 feet primarily in the northeast portion of the excavation between the coal storage pad and the railroad alignment as shown in Figure 6, (Photos 8 and 9).

Confirmatory sampling was performed as the excavation activities were completed. The initial round of 18 soil samples (plus 2 blind QC duplicate samples) was submitted to IT's subcontracted analytical laboratory, Kemron Environmental Services, and analyzed for the following confirmatory soil parameters:

- Volatile Organic Compounds (VOC) by Method 5035/8260B
- Semivolatile Organic Compounds (SVOC) by Method 8270C
- Polynuclear Aromatic Hydrocarbons (PAH) by Method 8310
- Pesticides by Method 8081A
- Polychorinated Biphenyls (PCB) by Method 8082
- Metals by 6000/7000 Series Methods.

The analytical results were received from Kemron and were reviewed, formatted, and forwarded by IT to the AFBCA, and USACE. A Chemical Quality Control Summary Report (CQCSR) is provided in Appendix E. This report summarizes analytical results and discusses the data quality evaluation of all confirmatory soil sampling results.

Review of confirmatory sampling results indicated PCB concentrations exceeded site-specific cleanup goals in 3 out of 18 sample locations (AOI66-CS-01-SWA, AOI66-CS-02-EB1, and AOI66-CS-12-SWA). IT was directed to extend the excavation laterally 25 feet to the west and to a depth of 1 foot BGS at sample location 1. IT was directed to continue excavation in sample locations 2 and 12 to a depth of 2 feet below ground surface (BGS) extending 25 feet laterally to the west, east, and north from both sample locations.

Review of sample data collected during the 1997 remedial action from the south sidewall of the CSYA (samples CSYA-CS-87 through 89 shown on Figure 3) indicated that a portion of the excavation required expansion to the south into AOI 66. The sidewall contamination indicated by these samples was removed during the AOI 66 excavation by extending the AOI 66 excavation northward until clean fill placed previously during the CSYA remediation was encountered. Sample AOI66-CS-9-EB1 was taken at the former location of CSYA-CS-87 to confirm cleanup.

2.2.2 Additional Excavation (Round 2 and 3) and Confirmatory Sampling Results

Confirmatory sampling was performed after completion of the second round excavation activities at sample locations 1, 2, and 12 (AOI66-CS-01-SWB, AOI66-CS-02-EB2 and AOI66-CS-12-SWB) (Figure 4). Review of these confirmatory sampling results indicated PCB concentrations exceeded site-specific cleanup goals in location 12 at 2 feet BGS. The USACE directed IT to continue excavation in this location to a depth of 4 feet BGS. Review of confirmatory sampling results indicated PCB concentrations were below site specific cleanup goals at this final depth (AOI66-CS-12-SWC) as shown on Figure 4.

Confirmatory sample results presented in table form were reviewed by federal and state regulatory agencies prior to reaching an accord with the AFBCA to commence backfill. These tables were then combined, edited, and formatted to create the various tables in the final closeout report (Appendix E). Cleanup standards listed in the results tables under column heading State recommended Cleanup Level (TAGMs), were used for screening purposes to flag contaminants requiring further evaluation of their need for cleanup. Further evaluation included comparison to site specific cleanup goals, regional background levels, and an evaluation of a contaminant's pervasiveness. Following further evaluation by the US Environmental Protection Agency (USEPA), New York State Department of Environmental Conservation (NYSDEC), US Army Corps of Engineers (USACE), and AFBCA, no additional excavation was required.

Visual observations of the south sidewall of grid 12 beneath the concrete coal pad showed the presence of a 1 foot layer of buried debris located 6 inches to 1 foot below the concrete pad which included metal bolts, broken ceramic insulator pieces, and miscellaneous metallic debris less than 6 inches in diameter. Soil boring AOI66-EB-17-01 located approximately 10 feet to the southwest of sample point 12 showed no debris at the same depth. Therefore the debris pocket at location 12 beneath the concrete pad appears to be isolated with an estimated width of less than 10 feet.

Sidewall sample AOI66-12-SWC, collected below the coal pad at 4 feet BGS, was the most representative sample of the debris layer. The sample was collected from the south sidewall of the excavation which was the northern edge of the debris layer. Analytical results showed that the debris layer contained arsenic, calcium, and copper above background concentrations.

2.3 UXO Screening and Removal

During excavation in the north eastern portion of the site, IT unexpectedly unearthed (2) 50 mm shell casings. As a result, all work in that area was stopped until an addendum to the AOI 66 Work Plan was prepared and approved detailing the required steps to screen the remaining excavation activities. IT mobilized two trained UXO technicians to oversee all remaining excavation activities. As required both technicians were graduates of the U.S. Naval School of Explosive Ordinance Disposal in Indian Head, Maryland. One technician was stationed at the excavation area at a location which allowed him to inspect each excavator bucket of soil during load out activities. The other technician was stationed at the stockpile area to inspect each truck load of soil as it was deposited in the stockpiles.

If either technician suspected any debris of being UXO, the technician notified all personnel in the vicinity by radio to clear the area. At that time, the technician would identify the debris and determine if it was in fact UXO. If UXO was detected, the technician would determine if the material was armed. The following UXO was recovered:

(10) - 105mm projectile casings
(1) - base of projectile nose fuse (inert)
(3) - 50 mm casings (inert)

The unexploded ordnance items found in the AOI 66 (50mm and 105mm projectile casings) were empty containing no visible propellant such as RDX, HMX, or other nitro-aromatics. These items were classified as unexploded ordnance because some contained a small primer cap no larger than 1 inch in diameter weighing no more than several ounces. This primer cap is sealed and would not be a significant source of contamination even if it were ruptured. The visible evidence observed during recovery indicated that the shell casings were buried empty. Since no traces of propellant were visible in or around the UXO upon recovery, no sampling for explosives is required.
The above listed UXO was placed in a 55 gallon drum and transported to the Fort Drum UXO detachment for disposal. Fort Drum has an ordinance disposal facility on base.

2.4 Water Collection, Treatment, and Discharge

All water generated during the AOI 66 excavations, dewatering, and decontamination activities was collected in a 20,000 gallon storage tank. IT stored and disposed of this water with water generated during the implementation of the Delivery Order 006 Landfill Consolidation Project. The water (5,400 gallons) was transported to Industrial Oil Tank Services Corporation of Oriskany, NY on July 13, 1999 for disposal.

2.5 Magnetometer Geophysical Survey and Anomaly Identification

The objective of the geophysical survey was to detect buried subsurface metal within the boundaries of AOI66. Based on the project objective and equipment used, the following scope of work was developed:

- Define the physical limits of the survey
- Establish a grid system within the area to be surveyed
- Collect geophysical data along traverse lines
- Process the data to determine if buried UXO or other subsurface metals are present.

IT mobilized a two man field geophysical crew on November 12 and 13, 1998 to perform the magnetic survey. A Geometrics G-858G magnetic gradiometer was utilized to acquire total field and magnetic gradient data during this survey.

The graphical results of the magnetic survey are presented in Figure 7. The magnetic readings recorded at the upper and lower sensors of the magnetometer represent total field readings, while the difference in readings between the two sensors represents the magnetic gradient. The results shown in Figure 7 are the magnetic gradient data. The elevated gradient readings are indicative of the presence of ferrometallic material.

As can be seen from Figure 7, a large number of anomalies are shown. However, only a few were the result of unknown buried objects. These unknowns are labeled with letters in Figure 7. Test pitting operations were then conducted to identify the cause of these anomalies with the results presented below:

Anomaly	Description	Depth
A	1/4-inch diameter by 3-foot long steel rod and 2-inch by 4-inch iron plate	1.5 feet bgs
B	15 feet of steel wire and railroad spike	4 to 5 feet bgs
C	12-inch diameter fiberglass-wrapped steel pipe	8 feet bgs
D	12-inch diameter fiberglass-wrapped steel pipe	8 feet bgs
E	1/4-inch diameter braided steel wire	8 inches bgs
F	2-inch long iron bolt	1 foot bgs

The anomalies shown above represent the larger anomalies at the site. Smaller, very localized anomalies were not investigated because of the numerous small pieces of metal scattered throughout the survey area.

2.6 Waste Characterization and Disposal

A total of 18 soil stockpiles (approximately 50 cubic yards of material per pile) were accumulated during the interim RA. To determine disposal requirements, composite sampling of each stockpile was performed in the staging area at the alert apron. A representative sample of the material in each stockpile was obtained utilizing a clean stainless steel trowel. Sampling equipment was decontaminated between stockpiles to minimize the potential for cross contamination. Each of the stockpiles was analyzed for the following parameters:

- VOCs (U.S. Environmental Protection Agency [USEPA] Method 5035/8260B)
- SVOCs (USEPA Method 8270C)
- Pesticides (USEPA Method 8081A)
- PCBs (USEPA Method 8082)
- Target Analyte List (TAL) Metals (USEPA Method 6000/7000 Series)
- PAHs (USEPA Method 8310)
- Herbicides (USEPA Method 8151)

In addition to the above listed parameters, the following suite of parameters was required by the landfill for disposal, but at a reduced frequency:

- Ignitability (USEPA Method 1010)
- Corrosivity (USEPA Method 1110)
- Reactivity (Method 8.3 of USEPA SW-846)
- Toxicity Characteristic Leaching Procedure (TCLP) (SW-846 Method 1311)
- Lead (Method 6010A/3050A).

Out of the 18 stockpiles sampled, one stockpile (WC-AOI66-15) was characterized as hazardous waste (New York State Waste Code B007) for PCB concentration greater than 50 parts per million (ppm). The remaining stockpiles were characterized as nonhazardous, non-DOT regulated material.

2.6.1 Nonhazardous Waste

IT procured the services of Fred Burrows Trucking (NY Permit 6A-108) to perform the transportation of nonhazardous soils contaminated with PCBs. All nonhazardous soil was profiled and trucked to Seneca Meadows Inc.'s Waterloo, New York landfill in lined vehicles for disposal. A total of 2,644 tons of nonhazardous soil was disposed. An example manifest is located in Appendix D.

Due to their potential contact with PCB waste, characterization and disposal was required for the 169 used railroad ties removed from the AOI 66 railroad alignment. A total of five composite samples were collected from the wood shavings, with approximately 34 ties sampled for each composite. All 5 samples were analyzed for total PCBs by Method 8082. One out of the five samples (AOI66-RT-03) contained PCBs greater than the 1 PPM cleanup goal. The 34 ties represented by this sample were segregated from the non-contaminated ties, transported off site by Fred Burrows Trucking, and disposed of by landfilling at Seneca Meadows Landfill in Waterloo, NY. The non-contaminated ties were transported off site for reuse.

2.6.2 Hazardous Waste

IT procured Chemical Waste Management (Chemwaste) to perform transportation and disposal of hazardous waste, which included PCB contaminated soil, and other debris with NYSDEC Waste Code B007. All hazardous soil loads were transported to Chemwaste's Model City, New York facility for direct disposal by landfilling. Trucks were inspected for liners, tarps, placarding, leakage, tire condition, etc., prior to release from the site. A total of 281.4 tons of hazardous soil were disposed. An example hazardous waste manifest is included in Appendix D.

2.7 Site Restoration

IT began site restoration activities by direction from the USACE after the post-excavation surveys had been completed.

2.7.1 Backfill and Compaction

Clean backfill material was obtained from Lanz Construction's borrow source located in Rome, NY. A representative sample was collected and analyzed for chemical analysis by Kemron Environmental Services for confirmatory soil parameters. Results of sample AOI66-Borrow-01 were submitted to the USACE for review and the material was approved for use as common fill at AOI 66. Standard proctor results of Benchmark's Crusher Run No. 2 stone were submitted to the USACE and the stone was approved for use as sub ballast material in the railroad alignment.

Restoration in common areas (not below the railroad or skid pad) included placement and compaction of clean fill, placement of topsoil, and revegetation. Compaction achieved in common areas exceeded the 90% standard proctor dry density requirement.

Restoration in the railroad alignment included compaction of common fill, placement of geotextile fabric liner and placement and compaction of sub-ballast material. See Figure 8 for railroad cross section. In the area of the railroad alignment compaction exceeded the 95% standard proctor dry density requirement in all lifts tested in the fill and sub-ballast layers. Compaction was achieved using a vibratory roller. Compaction testing was performed every 50 linear feet along the railroad alignment by PSI Inc. of Watertown, NY. Approximately 18 inches of sub-ballast material (NYDOT No. 2 crushed aggregate) was compacted on top of fill material to within 15" of top of rail. This completed preparation of the railroad bed for track placement by the railroad subcontractors.

During backfill activities an electrical manhole cover was damaged by IT. Repairs to the manhole were completed by IT and inspected by the USACE prior to completion of backfill activities (Photo 17).

2.7.2 Railroad Replacement

Railroad replacement was completed by Nicholas P. Giambatista Inc. Railroad Contractors and included placement and compaction of new ballast material, installation of new ties, bolts, and spikes, and reuse of old rails, joint bars, and plates. A successful test run was conducted with a locomotive engine owned by the Air Force (Photos 10 through 14). The engine traveled down the length of the track repeatedly to check for any unsupported ties or settling (Photo 15). No settling occurred, therefore no additional compaction was necessary following the trial run.

The concrete skid pad located adjacent to the railroad was replaced by IT with 10 yards of 4,000 psi concrete supplied by Cataldo Bros. and Sons concrete manufacturers of Rome, NY (Photo 16). The average thickness of the pad measured 4" with a 36" width carried over the 200' length replaced.

2.7.3 Revegetation

Revegetation included the placement of 4 inches of screened topsoil over the compacted common fill followed by seeding with 200 pounds of Agway Landscaper Grass Seed Mixture. Topsoil was hand raked to remove stones greater than 2 inches diameter and grass was hand raked after broadcasting to provide intimate soil contact.

2.8 Heavy Equipment Decontamination and Sampling Results

All heavy equipment exiting the Exclusion Zone (EZ) was decontaminated if there was a possibility that the equipment was in contact with contaminated soil or sediment. Dump truck beds were decontaminated and wooden side boards removed and replaced if necessary at the end of the day. Decontamination water was collected and transferred to 20,000-gallon frac tanks. Decontamination inspections were performed and documented by the Health and Safety Officer (Appendix C). Post-decontamination equipment wipe samples (Appendix B) were collected from heavy equipment being returned to the vendor if the equipment had the potential to be in contact with contaminated soil or sediment. Wipe samples were analyzed for PCBs and results were reported in micrograms per wipe (µg/wipe) (Appendix E). The PCB screening criteria of 10 micrograms per 100 square centimeters (µg/100 cm^2) was used for all equipment sampled.

No equipment wipe samples exceeded screening criteria. Decontamination certificates for all equipment are included in Appendix A.

3.0 Investigative Sampling

Three additional Investigative soil borings were sampled to complete the sub-surface investigation of AOI 66. This task was initiated in 1997 during the Coal Storage Yard project with the sampling of 15 borings throughout AOI 66. Information from these 15 borings is contained in the CSYA Closeout Report.

All three borings (16, 17, and 18) located in the eastern portion of the concrete coal storage pad, were advanced to the groundwater table using air rotary techniques. Samples were collected at the following intervals by advancing a clean stainless steel split spoon sampler.

- 0 - 6" below concrete pad (BCP)
- 2 - 4 ft BCP
- 4 - 6 ft BCP
- groundwater interface

Sample Collection Logs and Visual Classification of Soils were completed for each boring (Appendix A). All boreholes were grouted up to the level of the concrete footer upon completion of sampling using a tremie pipe. The remaining portion of the boring was filled with ready mix concrete.

Samples were submitted to Kemron for identical analysis as used for confirmatory soil samples. Soil boring analytical results (Appendix E) indicated that all borings intervals sampled were below the site specific cleanup goals established.

4.0 Final Inspection

A final site walk inspection was conducted on 13 August 1999, and was attended by the following individuals:

- Joe Wojnas (USACE, Quality Assurance Representative)
- Catherine Jerrard (AFBCA, On-Base Environmental Contact)
- Jim Samuels (IT, Quality Assurance/Quality Control Officer, Sampling Coordinator)

The USACE accepted AOI 66 as complete at this time.

5.0 Surveys and As-Built Drawings

Lafave White & McGivern, licensed surveyors, performed three topographic surveys to document existing site conditions, limits of excavation, and final grade. IT prepared three drawings incorporating data collected in these topographic surveys.

- Figure 1, Original Site Conditions
- Figure 6, Limits Of Excavation
- Figure 8, Final Grading

6.0 Health and Safety Requirements

The health and safety requirements for the project followed the guidelines set forth in the project SSHP. There were no lost time accidents on this project. Documentation of safety and health practices conducted during the project are located in Appendix C in the Safety and Health Phase Out Report.

7.0 Conclusions

All work was completed in accordance with the RAO, specifications, and work plans without a lost time accident. The site-specific PCB cleanup goals of 10 ppm for subsurface soil and 1 ppm for surface soil were met throughout the site.

8.0 References

IT Corporation (IT), September 1998, *Final Project Documents (Work Plan Addendum, Soil Cleanup Levels, Railway Specifications, Contractor's Quality Control Plan, Sampling and Analysis Plan Addendum, SSHSP Addendum) Interim Removal Action Area of Interest 66 (AOI66)*

IT Corporation (IT), June 1997, *Final Sampling Plan, and Quality Assurance Project Plan, Interim Remedial Action, Coal Storage Yard Area, Former Griffiss Air Force Base, Oneida County, New York.*

IT Corporation (IT), June 1997, *Final Health and Safety Plan, Interim Remedial Action, Coal Storage Yard Area, Former Griffiss Air Force Base, Oneida County, New York.*

New York Department of Environmental Conservation, Jan. 24, 1994, "Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels," HWR-94-4046.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Jon,
The schedule is in the AF's 3/24/00 ltr. Let me know if you need a copy Doug

JUN 0 8 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Re: Parcel F-1 Schedule

Dear Mr. McDermott:

I have received the revised schedules developed by the Air Force, dated March 24, 2000, for the Covenant Deferral Request (CDR) and the Finding of Suitability for Early Transfer (FOSET) for Parcel F-1 and find them acceptable. As you are aware the Regional Administrator, along with the Governor of New York, approved the CDR request on April 2, 1999. However, it is my understanding that the property was not transferred as originally scheduled by the Air Force due to logistical issues between the Local Reuse Authority and the Air Force. It is also my understanding that these issues have now been resolved although due to the delay the original CDR schedules are no longer applicable and hence needed to be revised. As a result, revised cleanup schedules were developed by your staff for various sites located within the boundaries of Parcel F-1 that need remediation. It is my understanding that based upon discussions among you, Jonathan Greco, of the NYSDEC, and Douglas Pocze, of my staff, these schedules have been identified to the transferee and found to be acceptable. Therefore, based upon the transferee and NYSDECs' acceptance and EPA's review, I find the revised attached schedules also acceptable. Please ensure this letter along with the revised schedules are included within all copies of the CDR and FOSET.

Should you have any questions, I can be reached at (212) 637-4332.

Sincerely,

Robert Wing, Chief
Federal Facilities Section

attachment

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518)
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

FILE COPY

June 8, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Interim Remedial Action Report; T-9 AOC
Griffiss Air Force Base (Site ID No. 633006)

I have reviewed the referenced report and have the following comments:

1. Page 1-7: Please provide a table and figure for the data discussed in the 2nd paragraph (i.e., PEER, 1996 Site Assessment). Also, please discuss the lack of correlation between the various studies conducted (e.g., the RI showed many excedances of the STARS guidance, the data generated from the removal also indicated STARS excedances, etc.).

2. Section 2.2: Please explain how landfarming was chosen as the appropriate remedy for the soils from areas other than that which is associated with the open spill at this site.

3. Section 2.2: Please provide the data from the analysis of the 1000-gallon UST contents.

4. Section 2.2.1: Please give a better chronology of the events conducted at the site. Though not evident from the text, I believe the 60-inch storm water pipe was installed recently by the GLDC, and yet contamination was found above it; indicating that it was either installed in an already obviously contaminated area, or a new release has occurred.

    a. Was there any AFBCA representation present during the installation of the storm water pipe? And,

    b. Was there a plan established prior to construction indicating who should be contacted if obvious contamination was encountered?

5. Section 2.2.4; Page 2-16: Please elaborate on the type of odor observed during the excavation of Area B. Was there any testing of the contaminated soil prior to bringing it to the Apron 2 Landfarm?

6. Table 2.8 and elsewhere throughout the report: Please provide the "Form 1" laboratory summary for each analysis as an appendix to the report. Also, data summary tables should be changed to include the detection limit of each undetected analyte (i.e., N/D & M are not sufficient).

7. Table 2.8 and elsewhere: Please provide an explanation at the end of each table for the data qualifiers used. Also, in the case of the "M" data qualifier, was any effort made to determine the cause of the matrix interference?

8. Section 2.2.5; Page 2-38: Please provide the analytical data from the sampling of the 4,020 gallons of water from the POL line. Also, please provide more details as to the origin of the POL line.

9. Section 2.3: The wells used to assess the area for potential groundwater contamination are not properly placed (i.e., there appear to be three upgradient and on downgradient wells). Also, since contaminated soils were excavated into the water table, the likelihood of groundwater contamination appears very high. This area should be further evaluated in the LTM program or the under the NYSDEC's Spills program.

10. Appendix A; Table 2.3: Pages one and two appear to be missing from the table. Please include.

If you have any questions on this matter, please contact me at (518) 457-0549.

Sincerely,

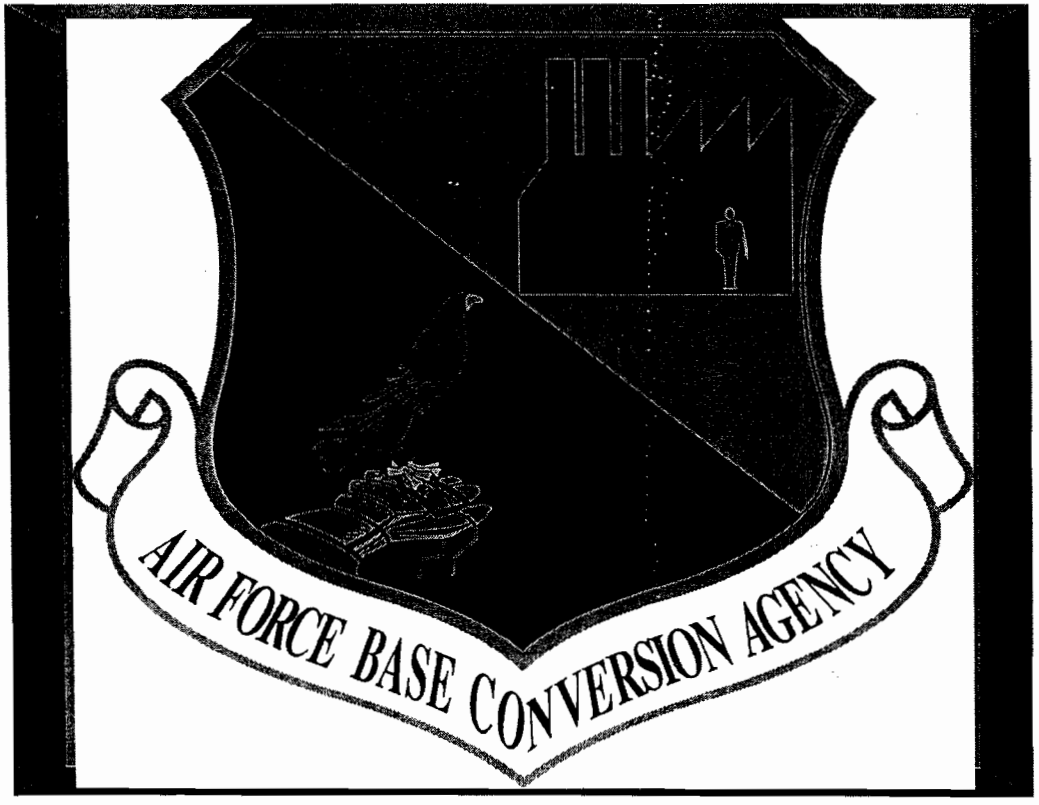
Jonathan Greco

Jonathan Greco
Project Manager
Division of Environmental
Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swerdoski, Reg. 6, Watertown
N. Carrier (Reg. 6, Utica)
L. Hancsak
S. Dimeo

bc: S. Ervolina
M. Chen

Griffiss Environmental Program



Restoration Advisory Board (RAB)

JUNE 6, 2000

AFBCA PERSONNEL

Site Manager 315-330-4092/DSN 587-4092

Anna Lemaire

Gail Waxler, Secretary

Real Estate/Real Property

Sandi Ziankoski

Correen Pounds

Quality Assurance Evaluators

Dick Petkovsek

John Decharo

Public Affairs

Carl Sahre

Environmental 315-330-2275/DSN 587-2275

Mike McDermott, BRAC Environmental Coordinator

Cathy Jerrard, Environmental Engineer

Mark Rabe, Environmental Engineer

Mike Wojnas, Environmental Engineer

Kathy Freebern, Secretary

RAB MEETING AGENDA

- **Questions and Comments on Environmental Site Tour**
- **Local Preference Contracting Issue**
- Draft Restoration Advisory Board Charter Revisions
- Environmental Funding Status
- Upcoming Proposed Plans
- GLDC Update
- Questions and Comments

LOCAL PREFERENCE CONTRACTING ISSUE

- **16 NOVEMBER 1999 RAB Meeting.**

  AFBCA announced that the US Army Corps of Engineers (USACE) will be awarding the Landfill #1 remediation contract to CapeEnvironmental.

- **22 NOVEMBER 1999**

  Protest was filed with the United States General Accounting Office (GAO).

- **01 MARCH 2000**

  GAO upheld the protest.

- **01 May 2000**

  US Army Corps of Engineers provided their proposed corrective action.

LOCAL PREFERENCE CONTRACTING ISSUE IMPACTS

- **If the proposed corrective action is accepted by GAO, supportedby AFBCA, and implemented, there will be a 1 to 1½ year delay.**

- **Approximately $15 million has been returned to Washington, DC.**
  - Remediation for the Landfills and Three Mile and Six Mile Creeks is on hold.

RAB MEETING AGENDA

- Questions and Comments on Environmental Site Tour
- Local Preference Contracting Issue
- **Draft Restoration Advisory Board Charter Revisions**
- Environmental Funding Status
- Upcoming Proposed Plans
- GLDC Update
- Questions and Comments

Restoration Advisory Board Charter Revisions

- **Proposed Representatives**
  - Air Force Base Conversion Agency (AFBCA)
  - Griffiss Local Development Corporation
  - City of Rome
  - Town of Floyd
  - Oneida County Legislature
  - Oneida County Environmental Management & Water Quality Council
  - Rome Floyd Residents Association
  - NY Rivers United
  - Cornell Cooperative Extension of Oneida County *
  - New York State Department of Environmental Conservation
  - New York State Department of Health
  - Environmental Protection Agency (EPA) Region 2
  - Base Transition Coordinator

* Possible Addition

RAB MEETING AGENDA

- Questions and Comments on Environmental Site Tour
- Local Preference Contracting Issue
- Draft Restoration Advisory Board Charter Revisions
- **Environmental Funding Status**
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- GLDC Update
- Questions and Comments

Environmental Program Funding/Delays

- **Landfill Remediation Status**
  - **Landfills 1, 5, & 6**- Remediation on hold until resolution of the local preference issue & approval of increased project funding.
  - **Landfill 2/3 & 7** - Awaiting funding.
- **Awaiting funding**
  - **Hardfill 49a** - East of the Small Arms Range (Lead Contamination).

Environmental Program Funding/Delays

- Awaiting Project Approval & Funding

  - **Bldg 789** - Petroleum contaminated soil remediation.

  - **Pumphouse 5** - Completion of contaminated soil remediation.

  - **Apron 1 and Nosedocks 1&2** - Contaminated soil removal & installation of a Bioventing System.

  - **Tank Farms 1 & 3** - Contaminated soil removal & one year of monitoring for natural attenuation.

  - **Landfarming** - Re-opening of the operations.

Environmental Program Funding/Delays

- Awaiting Project Approval & Funding (cont'd)

  - **Pumphouse 1** - Free product removal & one year of monitoring for natural attenuation.

  - **Pumphouse 2** - Bioventing system & one year of monitoring for natural attenuation.

  - **Building 133** - Contaminated soil excavation & landfarming.

RAB MEETING AGENDA

- Questions and Comments on Environmental Site Tour
- Local Preference Contracting Issue
- Draft Restoration Advisory Board Charter Revisions
- Environmental Funding Status
- **Upcoming Proposed Plans**
- GLDC Update
- Questions and Comments

Upcoming Proposed Plans

- Within the Next Six Months
  - **Landfill 6** - Impermeable Cap Presumptive Remedy

- Within 6 to 9 Months
  - **Building 20** - IRA completed - No Further Action
  - **Building 112** - IRA completed - No Further Action
  - **Building 222** - IRA completed - No Further Action
  - **Building 255** - IRA completed - No Further Action
  - **Building T-9** - IRA completed - No Further Action

IRA – Interim Remedial Action

RAB MEETING AGENDA

- Questions and Comments on Environmental Site Tour
- Local Preference Contracting Issue
- Draft Restoration Advisory Board Charter Revisions
- Environmental Funding Status
- Upcoming Proposed Plans
- **GLDC Update**
- **Questions and Comments**

MINUTES OF THE MEETING
OF THE
RESTORATION ADVISORY BOARD

1. Date/Time: June 06, 2000 - 5:00 PM

2. Location: Auditorium, Plumley Complex, Mohawk Valley Community College, Rome Campus, Upper Floyd Avenue, Rome, NY

3. Attendees: Michael McDermott - RAB Co-Chairman, BRAC Environmental Coordinator, AFBCA/DA-Griffiss
Mark Reynolds - RAB Co-Chairman, Director of Planning & Development, Griffiss Local Development Corporation
Anna Lemaire, Site Manager, AFBCA/DA-Griffiss
Catherine Jerrard, Environmental Engineer, AFBCA/DA-Griffiss
Michael Wojnas, Environmental Engineer, AFBCA/DA-Griffiss
Mark Rabe, Environmental Engineer, AFBCA/DA-Griffiss
Carl Sahre, Public Affairs Officer, AFBCA/DA-Griffiss
Angus McKinnon, DOD Base Transition Coordinator
Kathy Freebern, Secretary, AFBCA/DA-Griffiss
Patricia Anken, Rome, NY
John Fitzgerald, Rome Floyd Resident's Association
Peter Fitzgerald, Rome Floyd Resident's Association
Barbara Moore, USACE-Kansas City District
Wade Brower, AFCEE
Douglas Pocze, USEPA
Neal Carrier, NYSDEC
Donald Johnson, NYSDEC
Herb Skogland, Oneida County Environmental Management Council
Patricia Hudak, Oneida County Legislator
Joseph Vescio, Oneida County Legislator
John F. Buczek, Supervisor, Town of Floyd
Malcolm Didio, Town of Floyd RAB Representative
Pat Langendorf, Rome, NY
Freda Melkum, Rome, NY
Joseph Wojnas, USACE, NY District
Larry Hineline, Stearns and Wheler
Rich Stapleton, Metcalf & Eddy, Inc.

3. Attendees: (cont'd) Mike Blackmon, PEER Consultants
Yvonne Walseman, UNITEC
Jeff Blunt, UNITEC
Gaby Atik, FPM Group
David Forse, FPM Group
Barbara Pratt, FPM Group
Garvis DiLauro, FPM Group
Connie van Hoesel, FPM Group
Niels van Hoesel, FPM Group
Pat Corbett, Observer Dispatch
J. Ocuto, Ocuto Construction, Rome, NY
Tom Lanst, Rome Daily Sentinel

4. The June 6, 2000 Griffiss Restoration Advisory Board (RAB) meeting began at 5 PM with a bus tour of the former Griffiss Air Force Base Installation Restoration Program (IRP) Environmental sites. Members of the RAB and other interested community members were invited to attend. The purpose of the tour was to give regular RAB meeting attendees the opportunity to personally view the IRP sites that are discussed at the meetings, and to allow them to see the actual location of each site on the former Base. An itinerary, giving a brief description of each site, was distributed prior to the tour, along with a map showing the location of each site. The itinerary and map are attached.

5. The tour was conducted by RAB co-chairmen, Michael McDermott and Mark Reynolds and AFBCA Environmental Engineers Michael Wojnas, Mark Rabe and Cathy Jerrard. As the tour bus paused at each site on the itinerary, an Environmental Section staff member gave a short briefing on the site's historical use by the Air Force, cause(s) of contamination, the type of remedial action that is planned, in progress, or completed, and projected schedules. Different components of the remedial actions, such as stream gauges and monitoring wells, were pointed out. The group also saw the Landfarming areas on the Alert Apron, Apron 1, and at the Weapons Storage Area, the Central Heat Plant, which has been converted from coal to natural gas in compliance with the 1990 Clean Air Act and New York State Department of Environmental Conservation (NYSDEC) regulations, and the adjacent Coal Yard Storage Area, DRMO and Building 35, where PCB contaminated soil and debris were removed and replaced with clean soil.

Throughout the tour there were questions and comments from the group regarding the specifics of the various projects, and a number of questions related to the advantages and disadvantages of various techniques used for landfill remediation.

6. Mark Reynolds of the Griffiss Local Development Corporation (GLDC) briefed the group at various points when the tour approached sites where redevelopment of former Base buildings and property has taken place and facilities converted to private or community-based use. These areas included the Mohawk Valley Health Center, ball fields, Roberts Interiors, Baker Electromotive, the Orion Bus manufacturing facility, Locomotive Roundhouse, a new 55,000 sq. foot Shell Building, the parcel F-1 Development site (where obsolete warehouse facilities have been demolished), the Tech Park area (under construction), and the site of the new Rome High School (under construction).

7. The tour concluded at 6:15 PM. The group assembled in the Auditorium of the MVCC Plumley Complex for a regular meeting of the RAB. Mr. McDermott opened the meeting by thanking the group for attending the tour, and asked if there were any further questions related to the tour. There being none, he then referred to the first item on the meeting Agenda.

8. Mr. McDermott briefed the group on the situation related to the local preference contracting issue, which has caused a delay of work on Landfills 1, 5, and 6. At the November 16, 1999 RAB meeting, it was announced that the US Army Corps of Engineers (USACE) had awarded a contract for Landfill 1 remediation work to Cape Environmental Management of Illinois. On November 22, 1999, a protest was filed with the US General Accounting Office (GAO) by a local contractor, disputing the contract award method used by USACE. On March 1, 2000, the GAO issued a decision upholding the protest, agreeing that USACE had not complied with the National Defense Authorization Act of 1994, which established a preference for local businesses to carry out activities for environmental restoration and mitigation at closed or realigned military installations. Because of this situation, the $15 million that had been allocated for the Griffiss Landfills was pulled back by Washington for use at other Bases.

   USACE provided a plan of proposed corrective action on May 1, 2000. If the proposed corrective action is accepted by the GAO, and supported by the Air Force Base Conversion Agency, work will begin on the Landfills in one year to eighteen months. In the meantime, remedial work at Landfills 1, 5 & 6 and Three Mile and Six Mile Creeks is on hold and will begin only after funding has been reestablished.

   Following Mr. McDermott's explanation of the contracting issue situation, there were several comments from the group. Mr. Didio, representative of the Town of Floyd, urged

8.(cont'd) the AFBCA to do anything possible to speed up the process, noting the proximity of Landfill 1 and Three Mile and Six Mile Creeks to residences in the Town of Floyd. Mr. Ocuto, President of Ocuto Blacktop and Paving, stated that he was sorry for the delay but that local contractors should have the opportunity to bid the remediation work. Mr. Didio replied that he had nothing against the contractors, but was concerned with the delay and wanted to stress the importance of moving the project along as fast as possible. Patricia Anken, asked if Landfill 1 was the worst on the Base. The response was that it is. Mrs. Anken noted that her property is very close to Landfill 1 and while she feels that remediation work thus far has been acceptable, she is very concerned about the delay of work at Landfill 1.

9. Mr. McDermott reviewed the proposed revised Restoration Advisory Board Charter. The draft revised Charter had been mailed to members of the RAB prior to the meeting. Mr. McDermott asked for comments or questions. Mr. Fitzgerald stated that he felt that members who don't attend meetings should be replaced, and that other individuals who had showed interest in the Griffiss environmental cleanup program should be invited to join the group. Following Mr. Fitzgerald's remarks, Mark Reynolds, RAB co-chair, stated that it appeared that there are two separate issues. The first issue is: how can the attendance of current RAB members be improved? The second issue is whether the RAB membership should be expanded to include other interested groups or individuals. Mr. McDermott noted that some of the RAB members have difficulty attending the meetings because of other professional commitments, but are nevertheless interested in the Griffiss environmental restoration projects. He has received phone calls following distribution of RAB meeting minutes with questions and comments from RAB members who were unable to attend.

   Mr. McDermott said that he would be resending the draft revised Charter to RAB members, giving them the opportunity for a thirty–day review period to submit comments. (*This was mailed to RAB members on July 20, 2000*)

10. Mr. McDermott reviewed the current status of remediation work at various sites which has been postponed because of funding delays:
    a. Landfills 1, 5, and 6 are on hold due to withdrawal of funds as a result of the local contractor preference issue
    b. Landfills 2/3 and 7 are awaiting funding
    c. Hardfill 49a is awaiting funding

    Project approval and funding are required for the following:
    a. Building 789 – petroleum contaminated soil remediation
    b. Pumphouse 5 – completion of contaminated soil remediation

10.(cont'd)Project approval and Funding are required for the following:

c. Apron 1 and Nosedocks 1&2 - contaminated soil removal and installation of a bioventing system
d. Tank Farms 1 & 3 - contaminated soil removal and one year of monitoring for natural attenuation
e. Reopening of the Landfarming operation
f. Pumphouse 1 - Free product removal and one year of groundwater monitoring for natural attenuation
g. Pumphouse 2 - Installation of a bioventing system and one year of monitoring for natural attenuation
h. Building 133 - Contaminated soil excavation and landfarming

In response to a question, Mr. McDermott said that he was very concerned about the funding status and hopeful that after a Project Review meeting in late June, some of the funding problems could be resolved.

11. There are a number of Proposed Plans to be issued within the next six to nine months. The Proposed Plan for Landfill 6 will recommend an Impermeable Cap Presumptive Remedy. Interim Remedial Actions are complete and Proposed Plans will be issued for for No Further Action for Building 20, Building 112, Building 222, Building 255 and Building T-9.

12. Mr. McDermott asked if there were any further questions or comments. There being none, the meeting adjourned at 7:05 PM.

Respectfully submitted,

Barbara H. Pratt
Community Relations Specialist
Restoration Advisory Board

Attachment(s): 1. Site Tour Itinerary
2. Site Tour Map
3. Meeting Overhead Slide Handout

Restoration Advisory Board
Griffiss AFB Tour
June 6, 2000

(1) **MVCC** - Start tour

(2) **Tin City** - Location of four Areas of Concern (AOCs) and one Installation Restoration Program (IRP) site:
- B/215 and B/216 - Oil water separator (OWS) removed.
- B/214 Vehicle Maintenance/OWS and B/219 Drywell AOCs - No Further Action for soils.
- B/222 Battery Acid Disposal Pit and B/255 Drywell - Interim Remedial Actions performed.

(3) **Landfill 1** - 19.6 acre, trench and cover landfill operated from 1960 to 1973. Presumptive remedy - install impermeable cap, leachate collection and treatment system and perform long term monitoring.

(4) **Small Arms Range** - Removal of 13,000 tons of lead contaminated soil to facilitate transfer to the Bureau of Indian Affairs. Consolidation of landfill debris to Landfill 1 site.

(5) **Six Mile Creek** - Undergoing Feasibility Study.

(6) **AOC 9** - Former base landfill, originated as an Area of Interest, sampled Spring 2000. Preliminary data indicated solvents in groundwater.

(7) **Weapons Storage Area**
Baker Electromotive, Landfarm in Bunkers - Alternative fuel vehicle manufacturer, bioremediation of approximately 2,700 tons of petroleum contaminated soil in eight former weapons storage bunkers.

(8) **Landfill 7** - 10.7 acre trench and cover landfill operated from 1950 to 1954. Presumptive remedy - install soil cap and perform long term monitoring.

(9) **Landfill 2/3** - 13 acre landfill with Landfill 3 (asbestos cell located within the eastern portion of Landfill 2) operated from 1973 to 1982. Presumptive Remedy - install soil cap and perform long term monitoring.

(10) **Six Mile Creek** - Undergoing Feasibility Study.

(11) **Alert Apron Landfarm** - Bioremediation of approximately 6,000 tons of petroleum contaminated soil.

(12) **Former Pumphouses 1-4** - Jet fuel transfer facilities in support of aircraft refueling operations on Aprons 1 and 2.

(13) **SAC Hill (Building 774 and Pumphouse 3)**
TCE investigations - Undergoing Feasibility Study.

(14) **Landfill 4 and Landfill 6:**
- Landfill 4: Low level radioactive landfill removed in 1997.
- Landfill 6: 8 acre landfill operated from 1955 to 1959. Presumptive Remedy - install impermeable cap and perform long term monitoring.

(15) **Landfill 5** - 4 acre landfill operated in 1959. Presumptive remedy - install soil cap and perform long term monitoring.

(16) **Shell Building** - Approximately 55,000 SF 'shell' facility built to accommodate the needs of potential tenants. Provides flexibility for interior construction.

(17) **Central Heat Plant Conversion** - Boilers repowered from coal to natural gas/fuel oil to comply with 1990 Clean Air Act and NYSDEC regulations.

(18) **Coal Yard Storage Area, DRMO, Building 35** - PCB contaminated soil and debris excavated in 1997. Site restored with clean soil.

(19) **Pumphouse 5** - Jet fuel transfer facilities in support of aircraft refueling operations on Apron 1. Initial remedial action, pumphouse demolition and storage tank removal performed in 1997. Petroleum contaminated soil to Apron 1 landfarm.

(20) **Apron 1 and 2 Petroleum Site** - Planned site for bioventing project.

(21) **Apron 1 Landfarm** - Bioremediation of approximately 66,000 tons of petroleum contaminated soil.

(22) **Parcel F1 Development Site -** Demolition of obsolete warehouse facilities accomplished through EDA funding. Interest in parcel development is increasing.

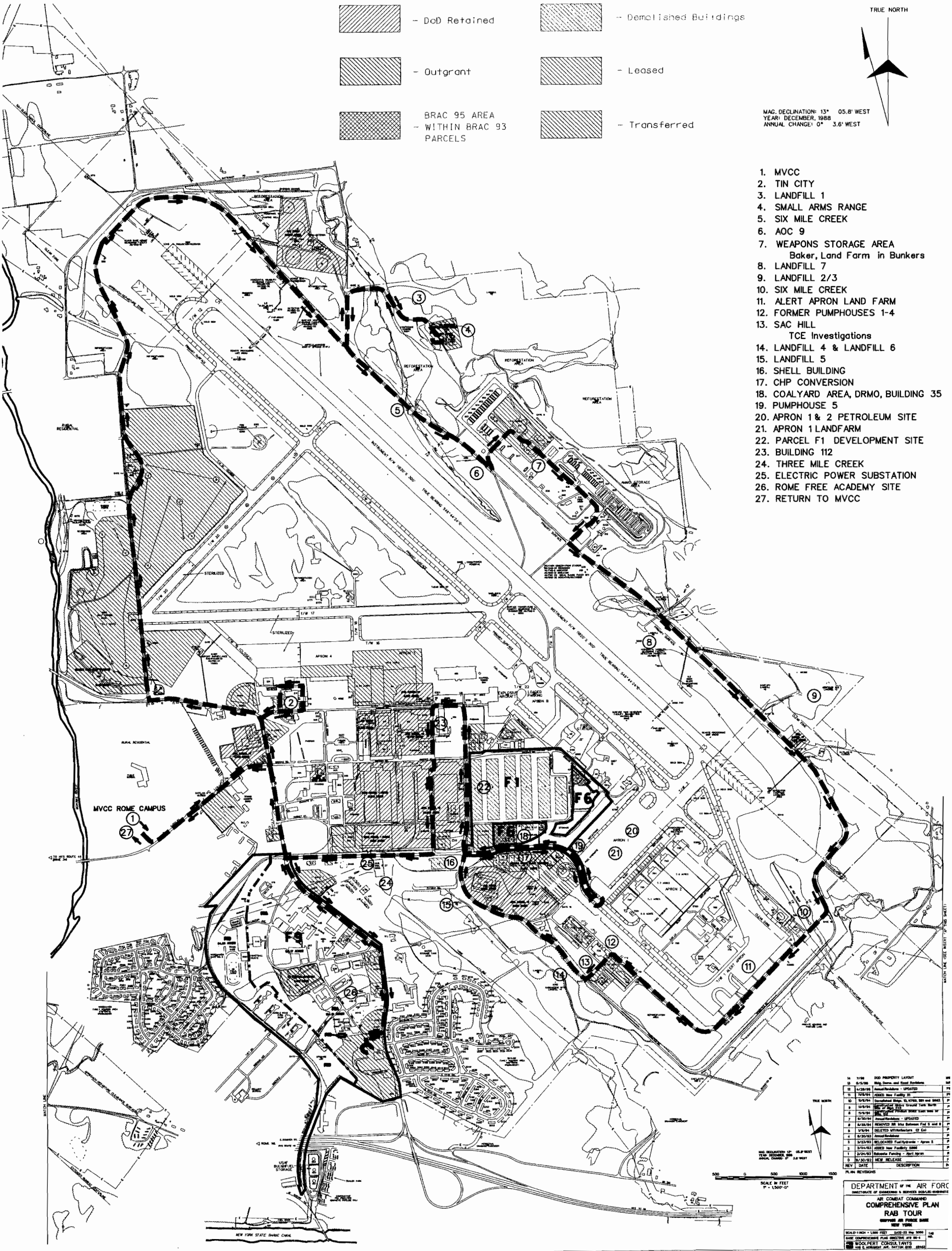
(23) **Building 112 -** Interim removal action of PCB contaminated soil performed for AOC on the south end of the building (exterior). RCRA investigation being performed inside the building on the south end. AOI investigations also being performed on the north end of the building (exterior).

(24) **Three Mile Creek -** Undergoing Feasibility Study.

(25) **Electrical Power Substation -** Removal action performed in 1998 to remove PCB contaminated soil.

(26) **Rome Free Academy Site -** Additional sampling performed Summer of 1999 and F9 parcel approved for transfer Fall 1999.

(27) **MVCC -** End tour



:\foslmaps\rab-route.dgn Jun. 01, 2000 15:41:01

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JUN 05 2000

Mr. Albert F. Lowas
Director
AFBCA/DR
1700 North Moore Street, Suite 2300
Arlington, VA 22209-2802

Re: Records of Decision for Five Landfills
Griffiss Air Force Base

Dear Mr. Lowas:

This is to inform you that after considering public comments on the Proposed Plans, Griffiss Air Force Base's responsiveness summary to those comments, the Draft Records of Decision and other supporting documents, the U.S. Environmental Protection Agency (EPA) concurs with the Records of Decision for the Landfills 1, 2/3, 4, 5 & 7. Enclosed is a copy of the signed Records of Decision, which I have co-signed on behalf of EPA.

The Records of Decision for Landfills 1, 2/3, 5 & 7 were developed as presumptive remedies in accordance with EPA Presumptive Remedy Guidance for Military Landfills, dated April 29, 1996. The remedies require the following: 1) installation and maintenance of an impermeable cover in accordance with current NYCRR Part 360 landfill closure regulations; 2) long term monitoring of the groundwater, surface water, and sediment in accordance with NYCRR Part 360 Landfill post-closure regulations; 3) evaluation of long term monitoring to evaluate the effectiveness of the presumptive remedy; 4) implementation of institutional controls in the form of deed restrictions; and 5) joint 5-year reviews of the remedies. A leachate collection system will also be installed at Landfill 1 which includes a cutoff trench on the southwest portion of the site to intercept both leachate and shallow groundwater before it reaches the creek. This water is to be treated before it is discharged back into the stream.

The Record of Decision for LF 4, although not a presumptive remedy since the actual landfill consisted of a concrete culvert which was removed and disposed, requires the following: 1) monitoring of the groundwater, in accordance with NYCRR Part 360 Landfill post-closure regulations; 2) evaluation of the monitoring to evaluate the effectiveness of the removal; 3) implementation of institutional controls in the form of deed restrictions on land and groundwater use; and 4) joint 5-year reviews of the remedy.

These Records of Decision address only the above mentioned areas of concern. All other areas of Griffiss Air Force Base are being addressed under separate operable units.

If you have any questions regarding the subject of this letter, please contact me at (212) 637-5000 or have your staff contact Douglas Pocze at (212) 637-4432.

Sincerely,

Jeanne M. Fox
Regional Administrator

enclosures

cc: M. O'Toole, NYSDEC w/encl.

JG

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
Bureau of Habitat, Room 576
50 Wolf Road, Albany, New York 12233-4756
Phone: (518) 457-6178 FAX: (518) 485-8424

John P. Cahill
Commissioner

MEMORANDUM

TO: Jonathan Greco, DER Bureau of Eastern Remedial Action

FROM: Christina Dowd, DFWMR Hazardous Waste Site Evaluation Unit

RE: Griffiss Air Force Base, ID# 6-33-006
Six Mile Creek Summary Memorandum and Three Mile Creek Feasibility Study Addendum prepared by the Air Force and dated March 2000

DATE: June 1, 2000

I reviewed the document(s) referenced above. I have the following comments.

Six Mile Creek Summary Memorandum

1. The first two sections of this report contain statements and analysis regarding the creek characterization, the ecological evaluation and contaminant screening that have previously been reviewed and found to be inaccurate, incomplete or otherwise unacceptable. To the extent that these comments have not been satisfactorily addressed, this report is unacceptable. If the forthcoming proposed plan includes this unacceptable information, extensive editing will be necessary.

2. From my analysis of the data, the fish and wildlife resources of the creek have been adversely impacted by discharges from several sources on the base. Remedies have now been selected for remediation of Landfills 1, 7 and 2/3. The Weapons Storage Area (WSA) continues to be a source of contamination to the creek and should be thoroughly investigated and remediated to eliminate discharges to the creek. The possibility of work in the creek or on the banks near the WSA cannot be ruled out until that investigation is complete.

   The report states that the iron floc and cloudiness observed in the creek below the base is due to Landfill 1, however, other discharges are also likely contributors to these conditions such as area wide storm sewers and/or bedding material. These should all be identified, sampled, remediated if necessary and brought into compliance with SPDES effluent limitations if not already done.

3. I basically agree with the habitat description in Section 3.

4. I have seen no post-remedial data on the condition of or discharges from Rainbow Creek and therefore cannot agree or disagree that this AOC no longer contributes contaminants to Sixmile Creek. (The fact that no PCBs were found anywhere on or off the base during the SI PISCES sampling suggests some analytical, laboratory or PISCES deployment problem.)

5. I agree with the decision that no excavation of sediments is warranted in Sixmile Creek **at this time**. This decision is based on the assumption that remediation of the landfills and other AOCs or discharges to the creek will be sufficient to eliminate or mitigate the existing and potential adverse impacts to fish and wildlife resources of the creek. The remedy for this AOC must include a comprehensive creek monitoring plan to include periodic sampling of sediment, surface water, fish and other biotic indicators, both on- and off-base. The purpose of the monitoring program is to evaluate the effectiveness of the various remedies for the landfills and other AOCs along the creek. This will be long term monitoring, and not limited to a five year period as indicated here.

   Of particular concern is the level of PCBs in fish tissue. If monitoring demonstrates that fish tissue concentrations do not decline to an acceptable level (i.e. approaching 0.1 ppm), additional remediation and/or excavation may need to be considered. This must be included in the ROD.

Three Mile Creek Feasibility Study Addendum

1. The first three sections of this report contain statements and analysis regarding the creek characterization, the ecological evaluation and contaminant screening that have previously been reviewed and found to be inaccurate, incomplete or otherwise unacceptable. To the extent that these comments have not been satisfactorily addressed, this report is unacceptable. If the forthcoming proposed plan includes this unacceptable information, extensive editing will be necessary.

2. The weighing of habitat quality against the need for excavation of sediments is only applicable to those off-base areas of the creek where sediment concentrations are low enough to consider leaving them in place. It does not apply to the on-base portions of the creek where the sediment concentrations and biological sampling indicate that adverse impacts are occurring to fish and wildlife resources of the creek.

3. I basically agree with the habitat description in Section 3.

4. I agree with the recommendation to excavate the entire on-base portion of the creek, however, there is no basis for limiting the excavation to the top 12 inches. The sediment sampling done in the creek was limited to the top 12 inches, so there is no data to show what concentrations exist below that depth. Additional sampling to characterize deeper

sediments is needed and/or sediment remediation goals must be selected. The same is true for the Landfill 5 drainage ditch.

5. I agree with the decision to excavate silty deposits in the off-base portion of the creek and in the pond. Sediments below 12 inches in the pond will have to be characterized and/or sediment remediation goals selected.

6. The remedy for this AOC must include a comprehensive creek monitoring plan to include periodic sampling of sediment, surface water, fish and other biotic indicators, both on- and off-base. The purpose of the monitoring program is to evaluate the effectiveness of the creek excavation as well as the various remedies for the landfills and other AOCs along the creek. This will be long term monitoring, and not limited to a five year period as indicated here.

   Of particular concern is the level of PCBs in fish tissue. If monitoring demonstrates that fish tissue concentrations do not decline to an acceptable level (i.e. approaching 0.1 ppm), additional remediation and/or excavation may need to be considered. This must be included in the ROD.

   If you have any questions or comments, please call me at (518) 457-9278.

cc: S. Sanford (PC, RK, ET)
A. Schiavone
M. Pensak, USEPA BTAG

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518)
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

May 23, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Apron 1Bioventing Field Test Report; Griffiss AFB (ID No. 633006)

I have looked over the referenced document and have a few major concerns:

1. The positive detection of various forms of chlorobenzene and dichlorobenzene is surprising, since I do not believe them to be components of JP-4 jet fuel (though they are listed in the report as being a BTEX compound). Please explain why this compound was initially analyzed for and provide any information you may have as to why it is present in site soils.

2. Is there any supporting documentation that bioventing is appropriate for chlorinated compounds?

3. If comment one, above, cannot be satisfactorily addressed, the remediation of Apron 1 must be moved from the Spills program to the CERCLA program. While this may or may not affect the final remedy, it will substantially impact the schedule.

If you have any questions on this matter, please contact me at (518) 457-0549.

Sincerely,

Jonathan Greco

Jonathan Greco
Project Manager
Division of Environmental
Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swerdoski, Reg. 6, Watertown
N. Carrier (Reg. 6, Utica)
L. Hancsak
S. Dimeo

bc: S. Ervolina
M. Chen

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

May 19, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, New York 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9702171
Bldg. 133 O.W.S. & UST 133
AOC (ST-53)
Rome (C), Oneida County

Dear Mr. Rabe:

This is in response to your consultant's quarterly groundwater monitoring report for quarter 4-1999 dated February 2000.

Reports for the O.W.S. and the U.S.T. call for further soil remediation to remove residual contamination.

Your consultant recommends termination of the ground water phase of this investigation. However, as MW-4 has only been sampled once, I cannot agree to this at this time.

I would recommend that quarterly sampling of all monitor wells continue for at least four more quarters in order to fully evaluate MW-4 and to insure that no bounce back occurs after the soil remediation activity is performed.

The next quarterly sampling should occur in June 2000, with a report submitted by **August 30, 2000.**

If you have any questions, feel free to contact me.

Sincerely,

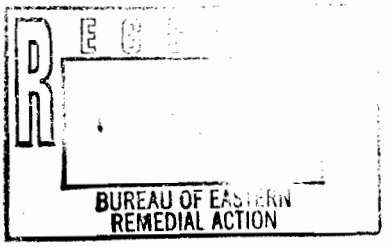
Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco
NFC:ds

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

MAY 16 2000

MEMORANDUM FOR Mr. Jonathan Greco
NYS Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010



Mr. Douglas Pocze
US Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York City, NY 10007-1866

FROM: AFBCA/DA-Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Drywell Removal Project - Revised Tables and Figures

1. Attached are revised Figures and Tables for the Drywell and Miscellaneous Sites Removal Project. Responses to regulatory comments on the draft Figures and Tables are also attached.

2. The fieldwork is currently scheduled to begin in June 2000. Work Plans will be issued in late May 2000.

3. Please contact Cathy Jerrard at (315) 330-2275 if you have any questions.

for MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment: As Noted

cc: Wade Brower, AFCEE (Griffiss)
Michael Quinlan, IT

OHM Responses to EPA and NYSDEC Comments on Draft Closure Work Plan Addendum Tables & Figures for Drywell and Miscellaneous Sites Removal		
AREA	**SOURCE**	**COMMENTS and RESPONSES**
AOI-90	EPA	Review past lead sampling results. If high concentrations of lead were detected outside of the vault then additional soil removal should be considered.
	OHM Response	Agreed. CWPA Text Section 1.3.1 will be revised to include a summary of previous AOI-90 soil sampling results for lead. Based on a preliminary review of past results, OHM will post soil sampling location ISPSS-12 (Pb=1,700 mg/kg) on Figure 1-2, the AOI-90 Site Plan. CWPA Table 2.1 and Text Sections 1.3.1, 2.1.2, and 3.1.3 will be revised to reflect the following proposed additions to the AOI-90 scope of work. OHM proposes to locate the ISPSS-12 sampling point in the field and collect surface soil samples (0 - 6-in depth) for lead analysis on a 10-ft by 10-ft grid extending 20 feet from the original sampling point. The lead sampling results will be used to establish a removal area that will be excavated to a depth of 1-ft below ground surface. Confirmation soil samples will be collected from the excavated area to determine if additional soil removal is warranted.
DRY-100	EPA	Clarify your reasoning concerning the proposed sequence of activities for delineation, sampling and removal.
	OHM Response	Agreed. OHM will revise CWPA Section 1.3.2 to include text describing the reasoning for the proposed sequence of activities for delineation, sampling and removal at DRY-100. CWPA Table 2.1 does not necessarily represent the chronological sequence of activities, which will likely be to conduct wipe and groundwater sampling prior to removal of DRY-100 (along with investigative sampling at other sites). Once the dry well is removed, along with any visually stained soil or soil with elevated headspace PID readings, soil samples will be collected for PCB analysis on a quick turnaround time. If the PCB results indicate that **no** additional removal is warranted, then final confirmation samples will be collected for the other analytical parameters (VOCs, SVOCs, & metals).
	EPA	Why is full analytical proposed for the soil and waste, but only PCBs for the groundwater?
	NYSDEC	Constituents other than PCBs were detected in the original sampling event, specifically chlorinated solvents. Consequently, the groundwater analysis should include the full TCL/TAL suite.
	OHM Response	Agreed. CWPA Table 2.1 will be revised to indicate that the two groundwater samples collected from DRY-100 will be analyzed for the full TCL/TAL suite. This will include TCL VOCs, TCL SVOCs, PCBs, and TAL metals. CWPA Text Section 1.3.2 indicates the same.
	NYSDEC	A permanent monitoring well should be considered for this site. Hydropunch samples may not yield representative results for PCBs due to particulates in the sample.
	OHM Response	In order to assess the potential for particulates to affect the PCB analytical results, OHM proposes that both unfiltered and laboratory-filtered groundwater samples be analyzed for PCBs. CWPA Text Section 1.3.2 will be revised to include PCB analysis of both unfiltered and laboratory-filtered groundwater samples. Table 2.1 will be footnoted to indicate the same. OHM has sampled existing permanent monitoring well MW01 located

OHM Responses to EPA and NYSDEC Comments on Draft Closure Work Plan Addendum Tables & Figures for Drywell and Miscellaneous Sites Removal		
AREA	**SOURCE**	**COMMENTS and RESPONSES**
		immediately east of the generator room and found no PCBs present. Previous analytical results for MW01 will be presented as an Appendix to the CWPA.
Bldg. 211	EPA	The vault should be inspected after it is emptied. If cracks or evidence of leaks are discovered, then plans must change to address this additional concern.
	OHM Response	Agreed. CWPA Text Section 1.3.3 will be revised to include a vault inspection and an evaluation of the vault integrity. Recommendations concerning additional assessment, if appropriate, will be included in the Final Report. If directed by the Base, additional assessment, if indicated, may be conducted as part of this remedial action.
DRY-842	EPA	Provide additional detail concerning the construction of DRY-842. Specifically address the materials used to construct the walls, and state whether the vault has an open or closed bottom.
	OHM Response	Construction details are included in CWPA Section 1.3.4 and illustrated on Figure 1-5. The vault walls are constructed of brick and cinder block and the bottom is open.
WW-222	EPA	Are there any existing wells that can be used to assess groundwater quality at WW-222?
	OHM Response	There are two wells located some distance (> 150-ft) downgradient from WW-222. However, no groundwater sampling is planned for WW-222 since a groundwater sample collected from a temporary well, immediately downgradient from WW-222, during the ESI (E&E, 1998) did not indicate the presence of any organic contamination or significant metals contamination that would warrant further investigation.
PCB Pad	EPA	Provide a diagram showing the dimensions of the area and proposed sampling locations. Clarify and explain the proposed sampling plan.
	NYSDEC	Provide additional site history, past site usage information (i.e. why is called the "PCB Pad"), and construction details. Additional shallow soil samples should be collected from around the pad.
	OHM Response	Agreed. CWPA Section 1.3.7 will be revised to contain the requested information and will fully discuss the proposed sampling plan. The sampling plan will include shallow soil sampling from 0-6 inches in depth at a minimum of six locations around the PCB Pad perimeter. Figure 1-8 will include site dimensions and show proposed sampling locations. Table 2.1 will be updated to include the additional samples.
PCI-7	EPA	If the drums are not grouped together, additional soil samples should be collected. Groundwater samples should be taken wherever a soil boring sample is collected.
	OHM Response	Sampling locations shown in the Work Plan are proposed locations only. If actual site conditions are different from those anticipated, additional sampling locations will be established. CWPA Text Section 1.3.8 will be revised as appropriate to include possible additional sampling based on actual site conditions. Figure 1-9 will be revised to include a note indicating the same.

Table 1.1 - Closure Procedure Activity Summary
Drywell & Miscellaneous Sites Removal Project
Former Griffiss AFB, New York

Closure Activity[4]	Sites							
	AOI - 90	DRY -100	Bldg. -211	DRY -842	DRY -846	WW -222	PCB Pad	PCI Site 7
Cleaning out of Drywell, Grit Trap, or Vault	✓	✓	✓	✓	✓	✓		
Removal of Drywell, Grit Trap, or Drums		✓[2]	(3)	(1)	(1)	✓		✓
Surface Decontamination		✓	✓					
Assessment of Site Soils (Investigative Sampling)	✓	✓		✓	✓		✓	✓
Confirmation Soil Sampling	✓	✓				✓		
Investigative Wipe Sampling		✓						
Confirmation Wipe Sampling			✓					
Groundwater Assessment (Temporary Well)		✓		✓	✓			✓
Site Restoration	✓	✓	✓	✓	✓	✓		
Disposal of Material	✓	✓	✓	✓	✓	✓		✓

Notes:

1) DRY-842 and DRY-846 are still active and will not be removed.
2) The work at DRY-100 will be coordinated with the Federal Aviation Administration through the AFBCA.
3) Removal of DRY-211 has been deleted from the SOW because past efforts to locate it have failed.
4) This table summarizes the current SOW. Actual conditions encountered during performance of the work may warrant changes. If required, this table would be updated accordingly., For example, if PCB-contaminated soil is discovered in the Perimeter Road PCB Pad area, then remediation may be recommended.

Table 2.1 – Sampling & Analytical Summary Table
Drywell & Miscellaneous Sites Removal Project
Former Griffiss AFB, New York

Site	Proposed Action/Task	Sampling Task/Rationale	Sample Type/Location	Sample Matrix	Sample Qty (1)	Analytical Test Parameters (2)
AOI-90	Remove sediment from vaults, if present, and	Waste Sampling – Characterize vault contents for final disposition	Composite material removed from each vault separately (grab for VOCs)	Sediment	2	Full TCLP, PCBs and/or per disposal facility (3)
	Assess soil in area of previous sample location ISPSS-12 & Remove "Hotspot"	Investigative Sampling – Determine presence & extent of lead contamination in the area of ISPSS-12	Grab samples from a 10-ft x 10-ft grid extending 20-ft around ISPSS-12 at 0-6 inch depth interval including a resample at ISPSS-12	Soil	25	Lead
		Confirmation Soil Sampling – Compare results to TAGM 4046 (4)	Grab samples from excavated area	Soil	5	Lead
	Backfill vaults	Backfill Sampling - Verify that backfill is acceptable for use. Compare results to TAGM 4046 (4)	Composite from borrow source (grab for VOCs)	Soil	1	VOCs, SVOCs, Pest/PCBs, Metals
Dry Well 100	Remove Dry Well	Waste Sampling – Characterize sludge removed from drywell for disposal	Composite sample of re-moved sludge (grab for VOCs)	Sediment	1	Full TCLP, PCBs and/or per disposal facility (3)
		Investigative Sampling – Delineate extent of PCB contamination/guide removal actions – Compare results to 10 ppm action level (5)	Grab sample from bottom and each sidewall of excavation following drywell removal	Soil	5	PCBs
		Confirmation Soil Sampling – Compare results to TAGM 4046 (4)	Grab sample from bottom and each sidewall of excavation	Soil	5	VOCs, SVOCs, PCBs, metals
		Investigative Wipe Sampling – Compare results to EPA wipe sample action level	Wipe samples (625 cm^2 area) from the floor of the generator room	Wipe	4	PCBs
		Waste Sampling – Characterize excavated soil for final disposition	Composite of excavated material (grab for VOCs)	Soil	1	Full TCLP, PCBs and/or per disposal facility (3)
		Waste Sampling – Characterize purge	Grab sample of	Water	1	PCBs, VOCs, metals

Table 2.1 – Sampling & Analytical Summary Table
Drywell & Miscellaneous Sites Removal Project
Former Griffiss AFB, New York

Site	Proposed Action/Task	Sampling Task/Rationale	Sample Type/Location	Sample Matrix	Sample Qty (1)	Analytical Test Parameters (2)
Dry Well 100 (continued)		water for final disposition	containerized groundwater from purging			and/or per disposal facility (3)
		Groundwater Sampling – Compare to TOGS 1.1.1 Standards (6) to assess impact of Drywell contamination on local groundwater	Geoprobe sampling (7) at two locations downgradient of DRY-100	Water	2	TCL VOCs, TCL SVOCs, TAL Metals, PCBs
Building 211	Decontamination of Building Interior	Waste Sampling – Characterization vault water for final disposition	Grab sample of water in vault under floor	Water	1	VOCs, metals and/or per disposal facility (3)
		Waste Sampling – Characterize decontamination liquids for final disposition	Grab sample of containerized water from decontamination activities	Water	1	VOCs, metals and/or per disposal facility (3)
		Confirmation Wipe Sampling – Compare results to site specific wipe sample action level of 5µg/100cm^2 (8)	Wipe samples (625 cm^2 area) from a 5-foot grid	Wipes	8	Mercury (Hg)
Dry Well 842	Remove Sludge from Drywell	Waste Sampling – Characterize sludge removed from the drywell for final disposition	Composite sample of removed sludge (grab for VOCs)	Sludge	1	Full TCLP, PCBs and/or per disposal facility (3)
		Soil Sampling – Compare results to TAGM 4046 (4)	Grab sample from the bottom of the Drywell upon removal of the sludge	Soil	1	VOCs, SVOCs, PCBs, & metals
		Groundwater Sampling - Compare to TOGS 1.1.1 Standards (6) to assess impact, if any, of Drywell on local groundwater	Geoprobe sample (7) immediately downgradient of DRY-842	Water	1	VOCs, SVOCs, PCBs, & metals (9)
Dry Well 846	Remove Sludge from Drywell	Waste Sampling – Characterize sludge removed from the drywell for disposal	Composite sample of removed sludge (grab for VOCs)	Sludge	1	Full TCLP, PCBs and/or per disposal facility (3)
		Soil Sampling – Compare results to TAGM 4046 (4)	Grab sample from the bottom of the Drywell upon removal of the sludge	Soil	1	VOCs, SVOCs, PCBs, & metals

Table 2.1 – Sampling & Analytical Summary Table
Drywell & Miscellaneous Sites Removal Project
Former Griffiss AFB, New York

Site	Proposed Action/Task	Sampling Task/Rationale	Sample Type/Location	Sample Matrix	Sample Qty (1)	Analytical Test Parameters (2)
Dry Well 846 (continued)		Groundwater Sampling - Compare to TOGS 1.1.1 Standards (6) to assess impact, if any, of Drywell on local groundwater	Geoprobe sample (7) immediately downgradient of DRY-846	Water	1	VOCs, SVOCs, PCBs, & metals (9)
WW System 222	Remove Drain/Grit Trap	Waste Sampling – Characterize contents of drain/grit trap for final disposition	Composite sample of material from inside the drain, if present (grab for VOCs)	Sediment	1	Full TCLP, PCBs and/or per disposal facility (3)
		Confirmation Sampling – Compare results to TAGM 4046 (4)	Grab sample from bottom and each sidewall of excavation	Soil	5	VOCs, SVOCs, PCBs, pesticides & metals
PCB Pad Perimeter Road	Sampling Investigation	Investigative Sampling – Compare results to TAGM 4046 (4) to determine if the soils have been impacted by past storage practices	Grab samples from 0 to 1 foot and 1-2 feet depths on a 50 foot grid. Grab samples from 0-6 inches from around the outside perimeter of the pad.	Soil	18	VOCs, SVOCs, PCBs, pesticides & metals
PCI Site #7	Drum Removal	Waste Sampling – Characterize contents of drums for disposal	Collect grab samples from drums if material is present	TBD	TBD	Full TCLP, PCBs and/or per disposal facility (3)
		Investigative sampling – Compare results to TAGM 4046 (4) to determine if the underlying soils have been impacted by the drummed material	Four Geoprobe borings – 2 at each drum cluster - 1 shallow (0-1 ft) and 1 deep (GW) boring at each cluster	Soil	4	VOCs, SVOCs, PCBs, & metals
		Groundwater Sampling – Compare to TOGS 1.1.1 Standards (6) to help assess impact of the drummed contents on groundwater	Advance one Geoprobe boring in the area of the large drum cluster to groundwater (7)	Water	1	VOC, SVOCs, PCBs, & metals (9)

(1) Sample quantity does not include quality control samples, which typically consists of a matrix spike/matrix spike duplicate, field duplicate, equipment rinsate blank and trip blank (VOC analysis only). Note that these QC samples are an AFCEE requirement and will only be used for environmental samples and not samples that are collected for disposal characterization.

(2) Analytical Methods
VOCs by Method 8260B; SVOCs by Method 8270C; PCBs by Method 8082; Pesticides by Method 8081A; Metals by Method 6010B/7XXX

(3) Waste samples will be analyzed to determine final disposition of the material. If the material needs to be shipped off-site for disposal, analytical testing will need to be performed in order to properly characterize the material as hazardous or non-harardous and to meet the permit requirements of the designated disposal facility.

(4) NYSDEC Technical Administrative Guidance Memorandum 4046

(5) If soil exceeds cleanup criteria additional soil will be removed.

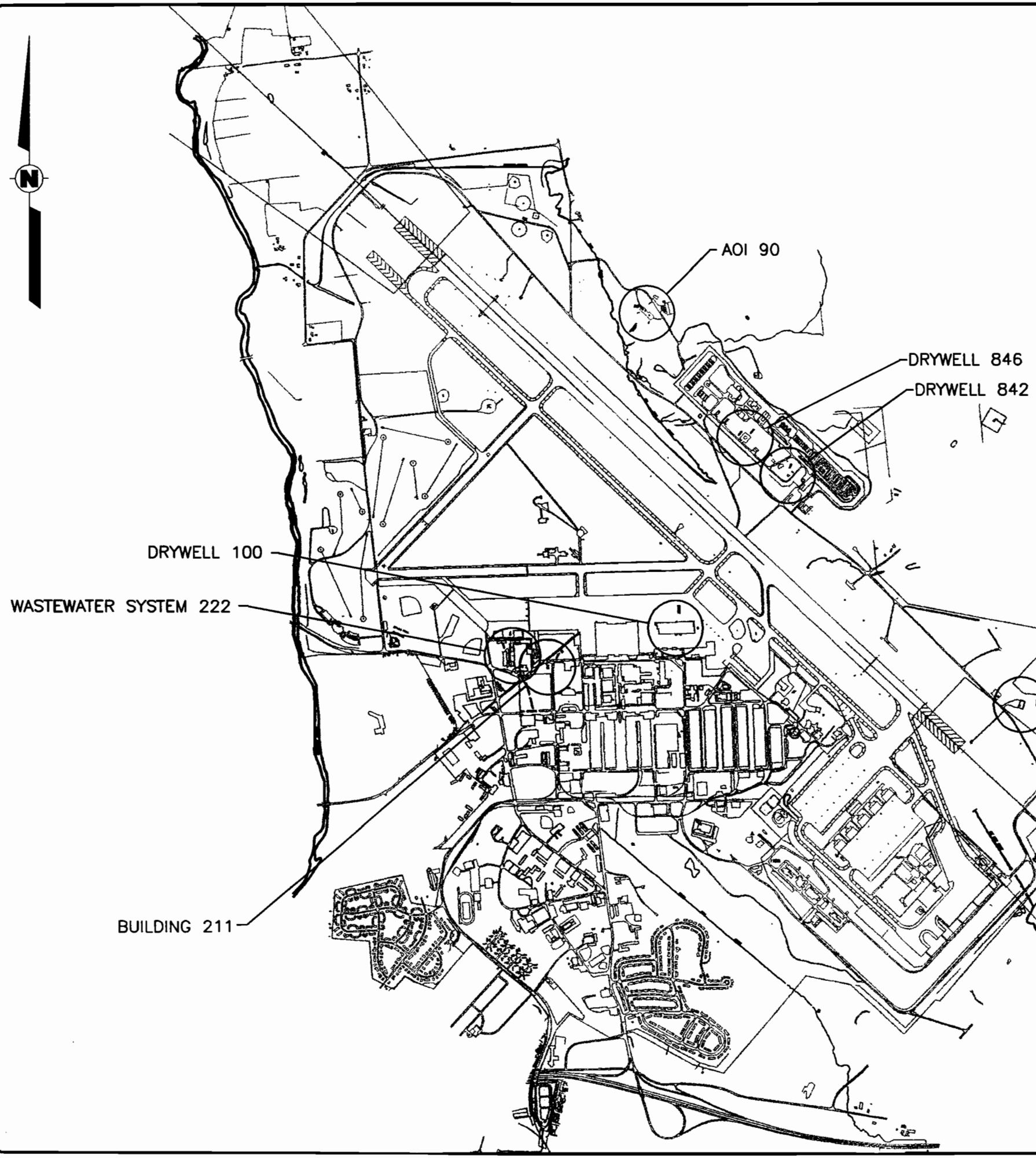
(6) NYSDEC Technical and Operational Guidance Series 1.1.1 - Class GA Groundwater Standards.

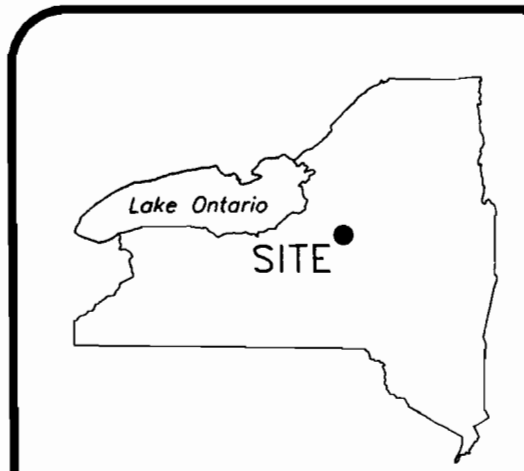
(7) A temporary well may be installed instead of collecting the sample directly from the Geoprobe apparatus.

(8) The proposed wipe sample action level for mercury was developed by OHM Remediation Services Corporation for closures of all the Hazardous Waste Storage Areas on the former Griffiss Air Force Base. The action level was developed using a methodology for converting a risk-based soil action level from TAGM 3028 to a wipe sample action level. The method is based on an assumed value for dust loading and an assumed relationship between contaminant content in surface dust and contaminant concentration in outdoor soil (Hawley, 1985).

(9) Metals analysis will be conducted on a filtered and a non-filtered groundwater sample. PCBs analysis will also be conducted on a filtered and a non-filtered sample collected from the temporary wells at DRY-100.

CAD File: 7549-001





SCALE
0 2,000 4,000 FEET

OHM Remediation Services Corp.
OHM Project No. 17549

FIGURE 1-1
DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT
SITE LOCATION MAP
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK
PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Coates	10/25/99	AS SHOWN	7549-001
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		0

CAD File: 7549-003

CONFIDENCE COURSE 6024

PROPOSED SOIL SAMPLING GRID TO ASSESS LEAD

10'

10'

ISPSS-12

Approximate Location of ISPSS-12 (Pb=1,700 ppm)

AOI 90

853

6028

SMALL ARMS RANGE 6025

854

738

Northwest Vault

Industrial Soil Pad

Southeast Vault

ROAD LOCATION APPROXIMATE

G/W FLOW TOWARDS SIXMILE CREEK

REFORESTATION AREA

LEGEND

APPROXIMATE DIRECTION OF GROUNDWATER (G/W) FLOW

PREVIOUS SOIL SAMPLING LOCATION

PROPOSED SOIL SAMPLING LOCATION

SCALE

0 80 160 FEET

Revised 05/16/00
S. McGinn

OHM Remediation Services Corp.

OHM Project No. 17549

FIGURE 1-2

DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT

AOI 90 SITE PLAN

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

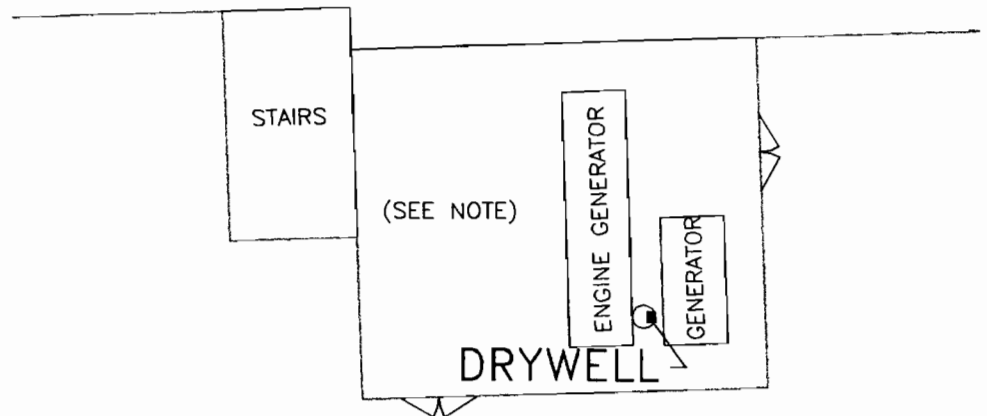
PREPARED FOR

AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Coates	10/25/99	AS SHOWN	7549-003
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		1

CAD File: 7549-001

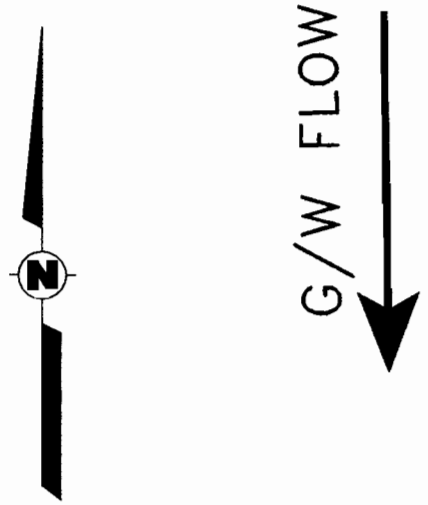
INTERIOR OF GENERATOR BUILDING ADDITION

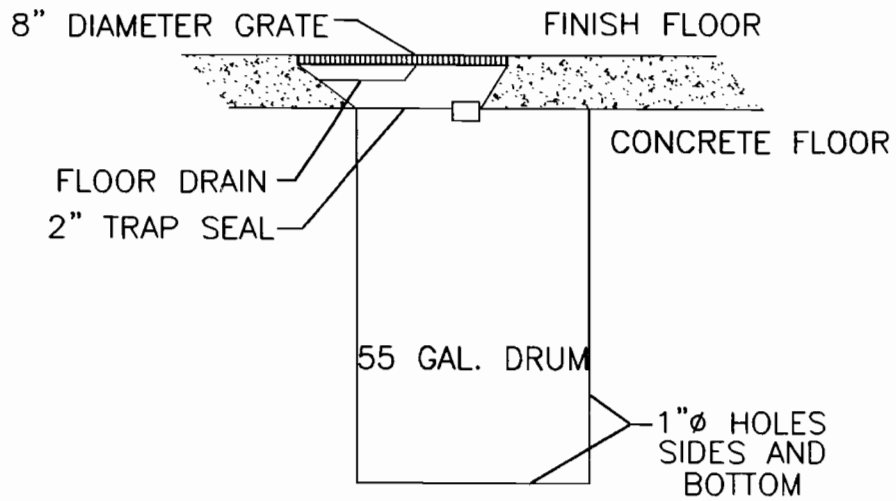


NOTE: WIPE SAMPLES WILL BE COLLECTED FROM THE FLOOR OF THE GENERATOR ROOM TO DETERMINE IF PCB CONTAMINATION IS PRESENT.

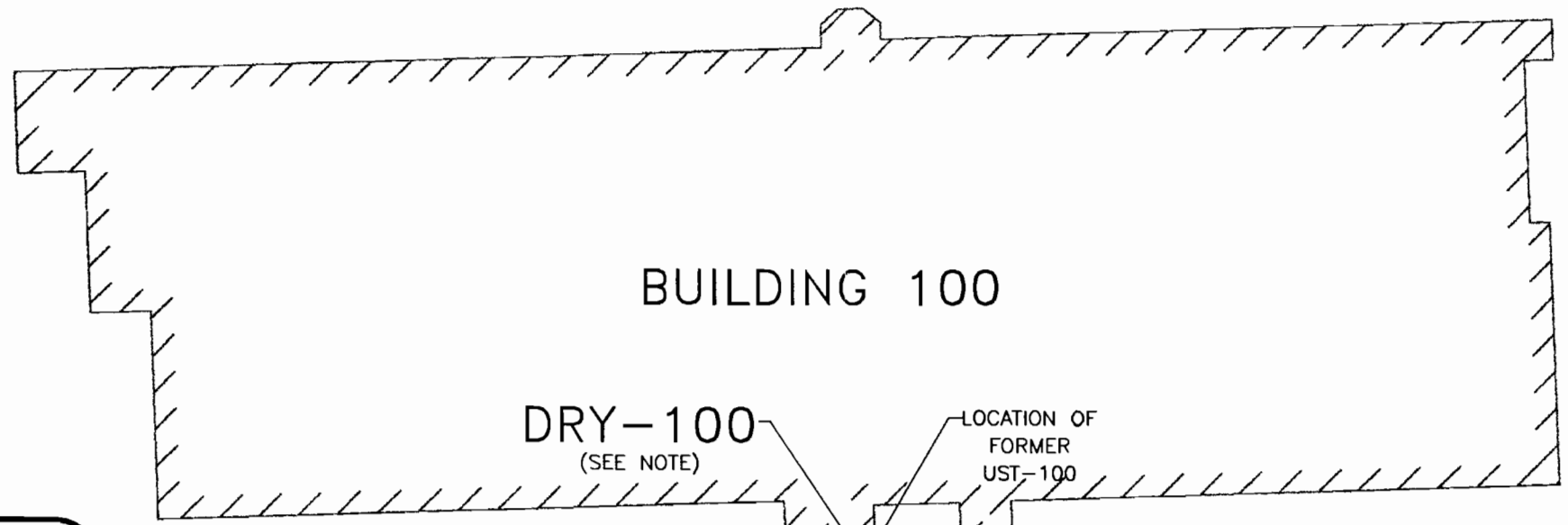
SCALE

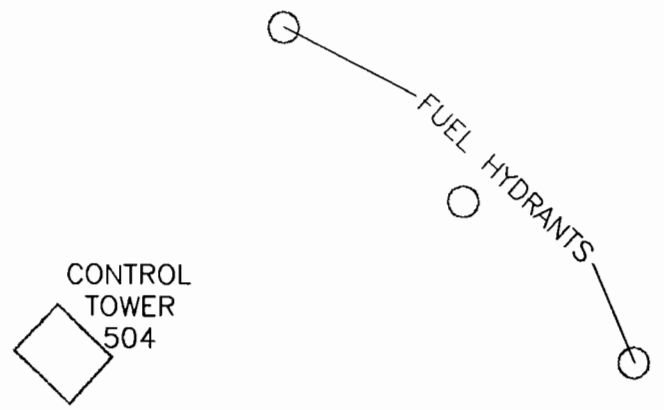
0 15 30 FEET





DRYWELL CONSTRUCTION
NOT TO SCALE





LEGEND

- DRYWELL LOCATION
- MONITORING WELL LOCATION
- PROPOSED GEOPROBE LOCATION
- APPROXIMATE DIRECTION OF GROUNDWATER (G/W) FLOW

NOTE: GRAB SAMPLES WILL BE COLLECTED FROM THE EXCAVATION FOLLOWING REMOVAL OF THE DRYWELL. CONTAMINATED SOIL WILL BE REMOVED IF ENCOUNTERED AND CONFIRMATION SAMPLES WILL BE TAKEN.

SCALE

0 100 200 FEET

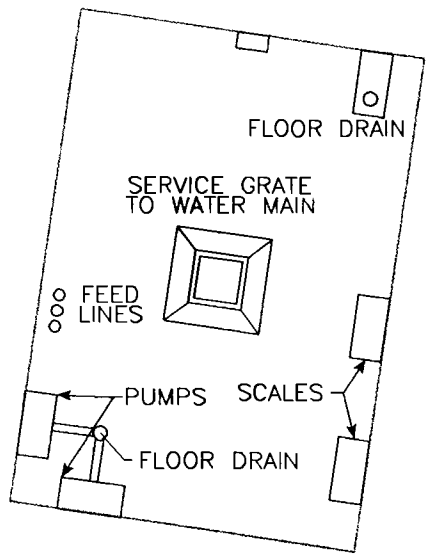
OHM Remediation Services Corp.
OHM Project No. 17549

FIGURE 1-3
DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT
DRYWELL 100 SITE PLAN
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

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Drawn By	J.Coates	10/25/99	AS SHOWN	7549-001
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Approved By	M.Quinlan	10/25/99		0

CAD File: 7549-001



NOTE: WIPE SAMPLES WILL BE COLLECTED FROM THE INTERIOR OF THE BUILDING FOLLOWING DECONTAMINATION

BUILDING 211 FLOOR PLAN
NOT TO SCALE

215

216

G/W FLOW

BUILDING 211

210

HANGAR RD.

MARCH ST.

REPORTED LOCATION
DRY-211
(NOT LOCATED/FOUND)

PARKING

LEGEND

APPROXIMATE DIRECTION OF GROUNDWATER (G/W) FLOW

FENCE

NOTE: WIPE SAMPLES WILL BE COLLECTED FROM THE INTERIOR OF THE BUILDING FOLLOWING DECONTAMINATION

SCALE

0 50 100 FEET

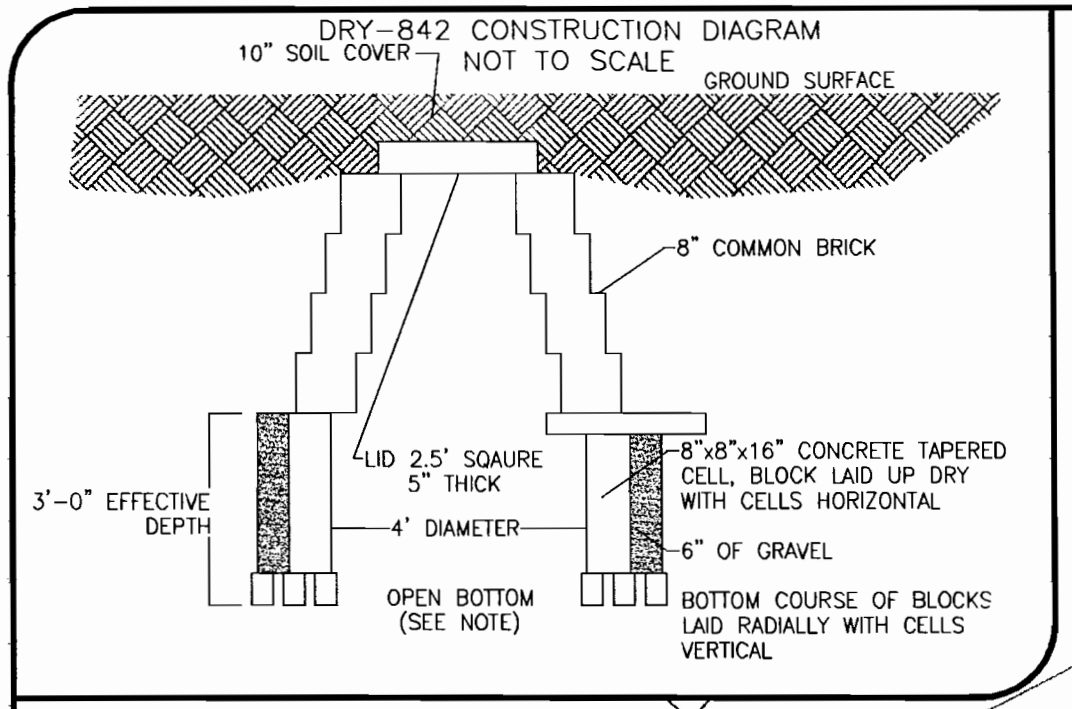
OHM Remediation Services Corp.

OHM Project No. 17549

FIGURE 1-4
DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT
BUILDING 211 SITE PLAN
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

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Drawn By	J.Coates	10/25/99	AS SHOWN	7549-001
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		0



LEGEND

- DRYWELL LOCATION
- PROPOSED GEOPROBE LOCATION
- APPROXIMATE DIRECTION OF GROUNDWATER (G/W) FLOW

NOTE: A SOIL SAMPLE WILL BE COLLECTED FROM THE BOTTOM OF THE DRYWELL UPON REMOVAL OF SLUDGE IN THE DRYWELL.

SCALE

0 50 100 FEET

OHM Remediation Services Corp.

OHM Project No. 17549

FIGURE 1-5

DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT

DRYWELL 842 SITE PLAN

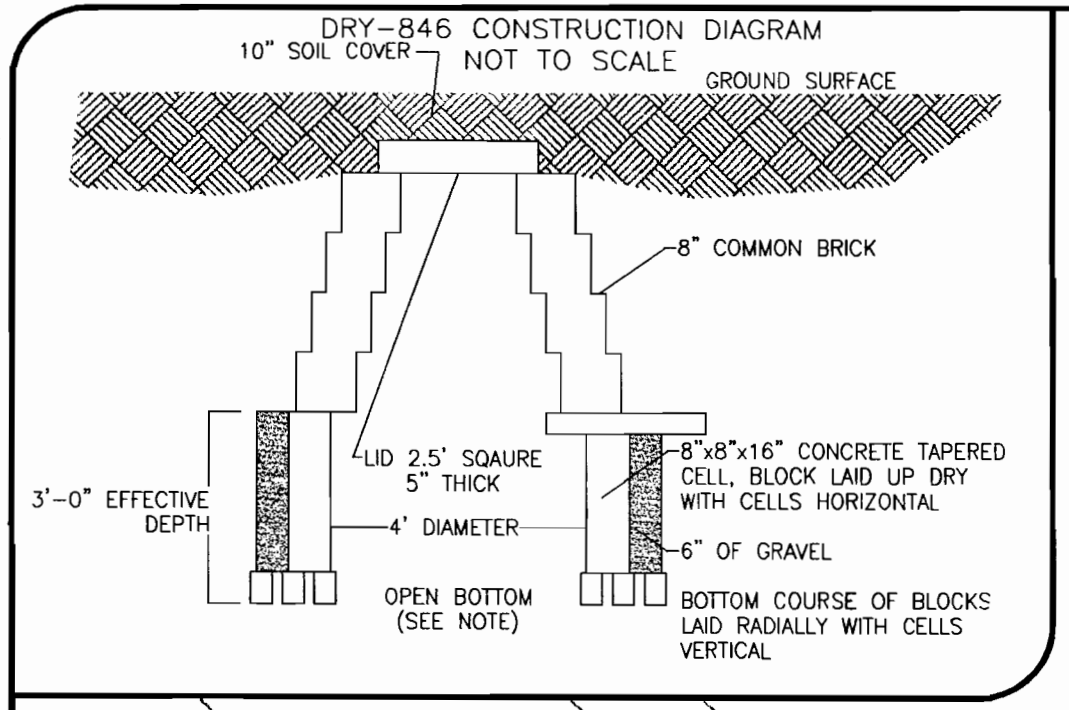
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

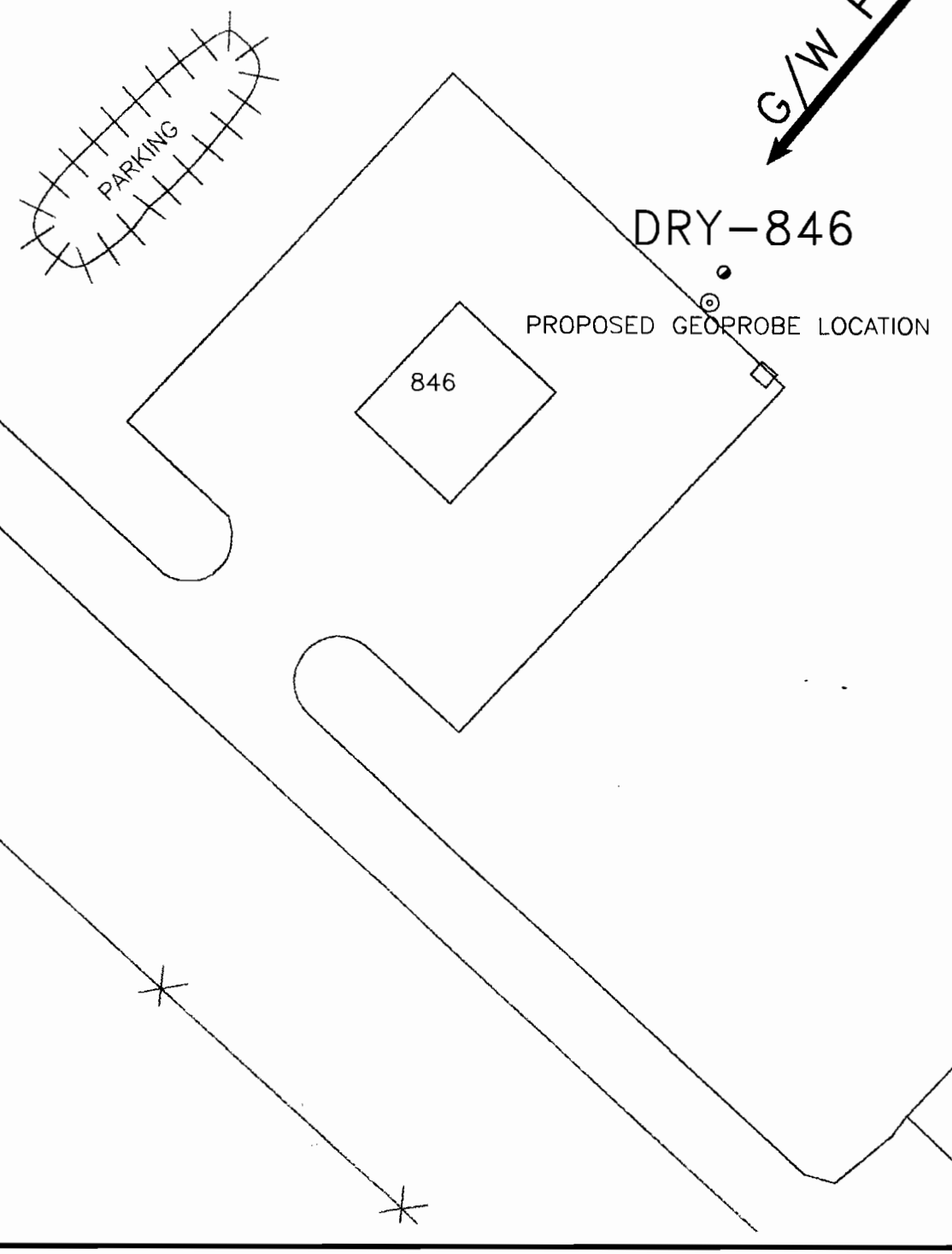
PREPARED FOR

AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
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Approved By	M.Quinlan	10/25/99		0

CAD File: 7549-001







LEGEND

- DRYWELL LOCATION
- PROPOSED GEOPROBE LOCATION
- APPROXIMATE DIRECTION OF GROUNDWATER (G/W) FLOW

NOTE: A SOIL SAMPLE WILL BE COLLECTED FROM THE BOTTOM OF THE DRYWELL FOLLOWING SLUDGE REMOVAL.

SCALE

0 50 100 FEET

OHM Remediation Services Corp.

OHM Project No. 17549

FIGURE 1-6

DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT

DRYWELL 846 SITE PLAN

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Cootes	10/25/99	AS SHOWN	7549-001
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		0

CAD File: 7549-001

MACDILL ST.

224

223

219

218

214

G/W FLOW

ASPHALT

FORMER 222

GRASS

MACDILL ST.

215

216

255

GRASS

LANGLEY RD.

WW-222

DRAIN/GRIT TRAP

ASPHALT PAD

BUILDING 250

N

LEGEND

- DRAIN/GRIT TRAP
- APPROXIMATE DIRECTION OF GROUNDWATER (G/W) FLOW
- FENCE

NOTE: GRAB SAMPLES WILL BE COLLECTED FROM EACH WALL AND FLOOR OF EXCAVATION

SCALE

0 50 100 FEET

OHM Remediation Services Corp.

OHM Project No. 17549

FIGURE 1-7

DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT

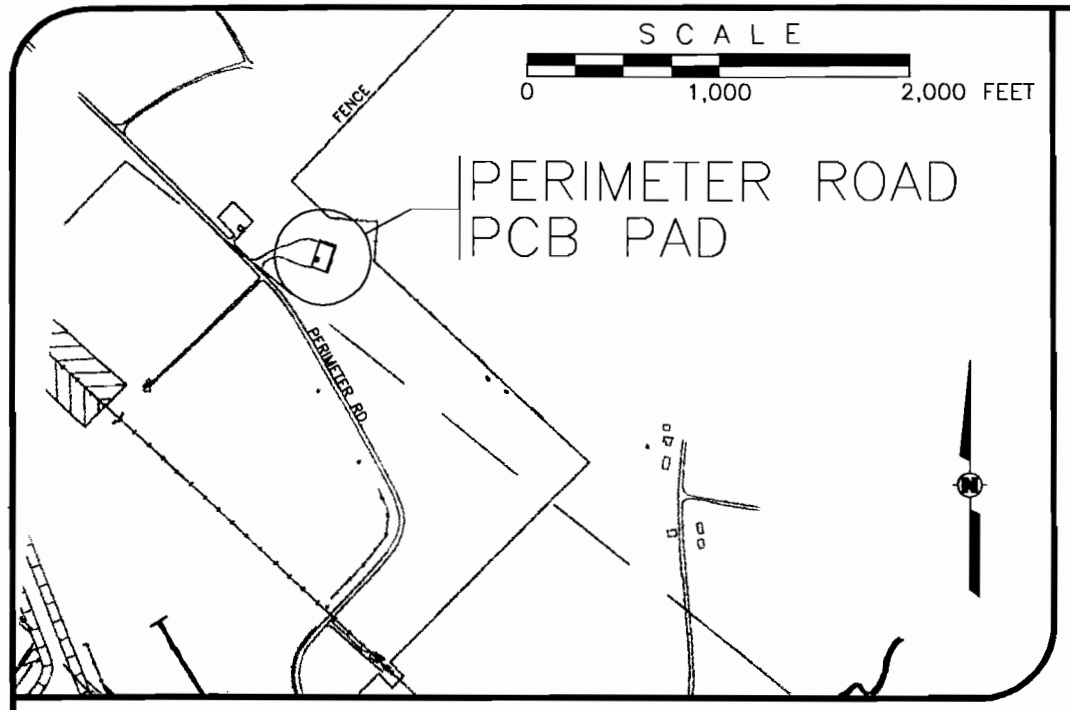
WASTEWATER SYSTEM 222 SITE PLAN

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Coates	10/25/99	AS SHOWN	7549-001
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		0

CAD File: 7549-003



GATE NO.12
CLOSED

PCB PAD
(EXTERIOR ELECTRIC STORAGE YARD)

Approx. 75 ft

SOIL BORING LOCATION
SAMPLES WILL BE COLLECTED ON A 50' GRID FROM 0-1' AND 1-2' AT EACH LOCATION

ELECTRICAL EQUIPMENT STORAGE AREA 762

Approx. 125 ft

BROKEN CONCRETE PAD

GATE 14A

PERIMETER RD.

APPROACH-DEPARTURE CLEARANCE SURFACE

LEGEND

- PROPOSED SOIL BORING LOCATION
- FENCE
- PROPOSED SURFACE SOIL SAMPLING LOCATION

SCALE
0
50
100 FEET

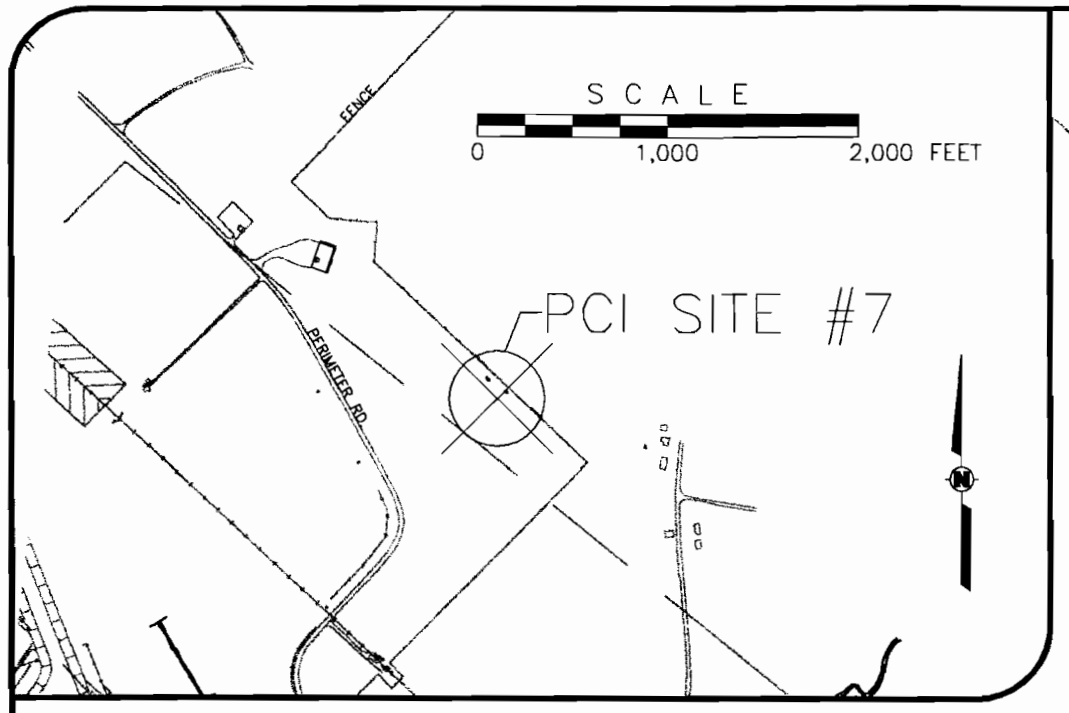
NOTE:
SURFACE SOIL SAMPLES WILL BE COLLECTED FROM 0-6 INCHES BELOW GROUND SURFACE AT SIX LOCATIONS AROUND THE PCB PAD PERIMETER. TWO ADDITIONAL SAMPLING LOCATIONS TO BE ESTABLISHED IN THE FIELD.

Revised 05/17/00
S. McGinn

OHM Remediation Services Corp.
OHM Project No. 17549

FIGURE 1-8
DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT
PERIMETER ROAD PCB PAD SITE PLAN
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK
PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Coates	10/25/99	AS SHOWN	7549-003
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		1



NOTE:
BORING LOCATIONS PROPOSED USING AVAILABLE SITE INFORMATION.
THE ACTUAL NUMBER AND LOCATIONS WILL BE DETERMINED IN THE FIELD BASED ON EXISTING SITE CONDITIONS.

PROPERTY BOUNDARY

PROPOSED GEOPROBE LOCATIONS

DRUM CLUSTER (SEE NOTE)

DRUMS CLUSTER (SEE NOTE)

LOCATION OF SURVEY POINT AT PCI SITE #7 (SEE X IN INSET ABOVE)

PROPOSED GEOPROBE LOCATIONS

APPROACH–DEPARTURE CLEARANCE SURFACE

LEGEND

◎ PROPOSED GEOPROBE LOCATION

NOTE: THE LOCATION OF THE DRUM CLUSTERS HAVE NOT BEEN SURVEYED AND THEREFORE MAY NOT BE ACCURATELY DEPICTED WITH RELATION TO THE SURVEY POINT.

SCALE
0 50 100 FEET

Revised 05/05/00
S. McGinn

OHM Remediation Services Corp.
OHM Project No. 17549

FIGURE 1–9
DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT
PCI SITE #7
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Cootes	10/25/99	AS SHOWN	7549–001
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		1

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

10 MAY 2000

MEMORANDUM FOR Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

Douglas Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

FROM: AFBCA/DA – Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Lease Application – Griffiss AFB, Building 100

1. An application has been received from the Griffiss Local Development Corporation (GLDC) for an interim lease of Building 100. The proposed usage is assembly of truck bodies followed by attachment to truck chassis. The GLDC's tenant will be relocating to another facility at Griffiss when construction of the new facility is completed.

2. Building 100 was included in the Finding of Suitability to Lease (FOSL) for the Airfield Flightline and Miscellaneous Structures, dated April 1999. The April 1999 FOSL was based on a concert festival usage. The April 1999 FOSL will be used for the new interim lease of Building 100. There are no changes in the restrictions or the notifications based on the change from a festival to manufacturing usage. Attached is a list of the Building 100 Restrictions and Notifications, a revised Visual Site Inspection (VSI) form, AF Form 813, and leased property map for the leased property.

3. Any questions that you may have pertaining to the interim lease of Building 100, please contact Cathy Jerrard at 315-330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachments:
1. Building 100 Restrictions/Notifications
2. Building 100 Visual Site Inspection Form
3. AF Form 813
4. Building 100 Map

cc: Ms. Lynn Hancsak, AFBCA/DA – ENV

RECEIVED

Building 100 Restrictions/Notifications

STW-100, two locations

These points have been sampled to confirm closure under project JREZ95-0036, Assess/Close Hazardous Waste/Material Storage Areas. Clean closure has been obtained and final closure of the sites was approved by the NYSDEC on August 11, 1999.

The Lessee will be advised through Lease documents of the location of the satellite storage areas. The USAF will not allow the Lessee to operate the former hazardous waste accumulation points or create new hazardous waste accumulation points.

ST-51, Building 100, Fuel Hydrant System (POL-100)

Site is still under investigation.
The Lessee will be advised through the Lease documents of the locations of past, possible, and future remedial actions/investigations. The Lessee will be required under the Lease to comply with the provisions of any health and safety plans in effect under the IRP. The health and safety plans will incorporate Occupational Safety and Health Administration (OSHA) requirements. The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the IRP/AOC sites listed above without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF and regulatory agencies unrestricted access to the property to conduct necessary investigation and/or cleanup activities.

UST-100-01, Open Spill 8907867

Spill number is still open. The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the UST site listed above without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF, NYSDEC, and their representatives unrestricted access to the site to conduct investigations, cleanup or removal activities.

Building 100 contains Asbestos Containing Material
Building 100 contains Lead Based Paint

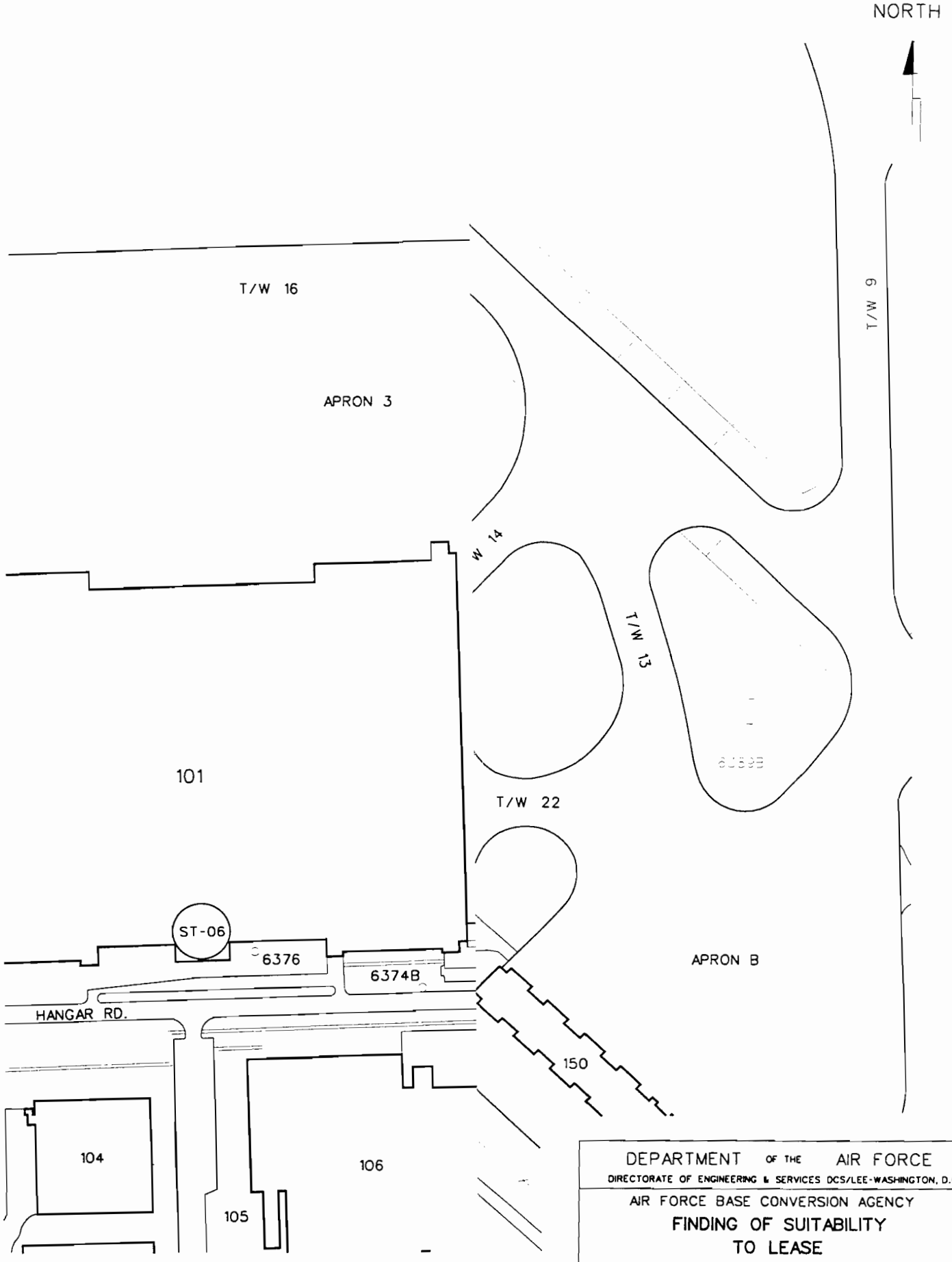
Drywell 100

Site is scheduled for a removal action in 2000. The Lessee will be restricted from access to the DRY-0100 site and from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the drywell site listed above without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF and NYSDEC, and their representatives unrestricted access to the site to conduct investigations, cleanup or removal activities.

Ordnance Related Material Notification
No sites on Building 100 property, standard notification will be provided.

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
BUILDING 100
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** April 2000
Facility #: Building 100	**Construction Year:** 1943	**Sq. Ft.:** 175,245
Inspected By: C. Jerrard, J. Decharo AFBCA/DA - GRIFFISS		
Facilities Current Function: Airfield Operations		
Prior Facility Use: Weapons and Release System Shop		
Point of Contact: AFBCA/DA - GRIFFISS		
Known Features: Underground Storage Tanks: UST-100-01 - 04 (01, 02, & 04 removed) Aboveground Storage Tanks: AST-100-01 – 04 (03 removed) Oil/Water Separators: OWS-100-01 & 02 (01 removed) Septic Tank Systems: None Drywells: DRY-100 Other Features: POL-100		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: No SAP: STW-100 (two locations), STW-100-01 & 02 WPP: No Other: None		
Exterior Inspection: Good condition		
Interior Inspection: Good condition, several minor roof leaks, some peeling interior peeling paint		
Comments This building is being used by the Airfield Caretaker contractor. Periodic maintenance has been performed in this building.		



DEPARTMENT OF THE AIR FORCE
DIRECTORATE OF ENGINEERING & SERVICES DCS/LEE-WASHINGTON, D.C.

AIR FORCE BASE CONVERSION AGENCY

FINDING OF SUITABILITY TO LEASE BUILDING 100

GRIFFISS AIR FORCE BASE ROME, NEW YORK

SCALE: 1 INCH = 200 FEET DATE: MAY 3, 2000

BASE COMPREHENSIVE PLNG DIRECTIVE AFR 86-4

TAB NO.

c:\foslmaps\b100fosl.dgn May. 09, 2000 16:07:03

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol
RCS:

INSTRUCTIONS: *Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I - PROPONENT INFORMATION

1. TO *(Environmental Planning Function)*	2. FROM *(Proponent organization and functional address symbol)*	2a. TELEPHONE NO.
AFBCA/DA - Griffiss, Environmental	AFBCA/DA - Griffiss, Real Estate	315-330-4273

3. TITLE OF PROPOSED ACTION
Lease Building 100 to the Griffiss Local Development Corporation (GLDC).

4. PURPOSE AND NEED FOR ACTION *(Identify decision to be made and need date)*
The GLDC requests a lease for use of Building 100 for a short term lease.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES *(DOPAA) (Provide sufficient details for evaluation of the total action.)*
Building 100 will be used for assembly of truck bodies.

6. PROPONENT APPROVAL *(Name and Grade)*	6a. SIGNATURE	6b. DATE
Anna L. Lemaire, GM-13	Anna L. Lemaire	10 May 00

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY.

(Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)

	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*		X		
9. WATER RESOURCES *(Quality, quantity, source, etc.)*		X		
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity-distance, etc.)*		X		
11. HAZARDOUS MATERIALS/WASTE *(Use/storage/generation, solid waste, etc.)*		X		
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, flora, fauna, etc.)*		X		
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)*		X		
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*	X			
16. OTHER *(Potential impacts not addressed above.)*		X		

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17. [X] PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # A2.3.11 ; OR
[ ] PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

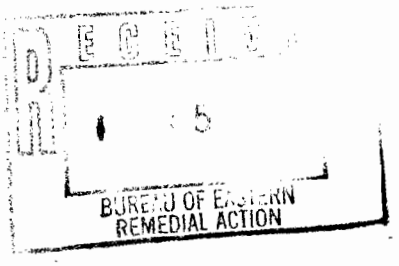
18. REMARKS
These impacts are categorically excluded from further analysis based on CATEX #A2.3.11 which encompasses actions similar to other actions which have been determined to have an insignificant impact in a similar setting as established in the Final Environmental Impact Statement (FEIS) for Griffiss AFB, dated November 1995. Based on this analysis, the environmental impacts of the lease are not sufficiently adverse to human health and the environment to outweigh the other advantages to the community and the public interest of this lease, or to prevent the leasing of this property.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION *(Name and Grade)*	19a. SIGNATURE	19b. DATE
Michael F. McDermott, GS-13	Michael F. McDermott	10May00

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

MAY 10 2000

Mr. Albert F. Lowas
Director
AFBCA/DR
1700 North Moore Street, Suite 2300
Arlington, VA 22209-2802



Re: Covenant Deferral Request and
Finding of Suitability for Early Transfer
For Parcel F2
Griffiss AFB, Rome New York

Dear Mr. Lowas:

Section 120(h)(3)(A)(ii)(I) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") requires a federal agency, such as the Air Force, to provide a covenant to a transferee that all remedial action necessary to protect human health and the environment has been taken before a transfer of property it owns can occur. Under CERCLA 120(h)(3)(C), the Environmental Protection Agency, with the concurrence of the state, may defer the requirements of CERCLA 120(h)(3)(A)(ii)(I) with respect to the property to be transferred if it determines that the property is suitable for the transfer. The Environmental Protection Agency, Region 2 ("EPA"), with the concurrence of the State of New York, hereby grants the Air Force's request for a deferral of the requirements of CERCLA 120(h)(3)(A)(ii)(I) with respect to that property designated as *Parcel F2* at Griffiss Air Force Base, New York.

This deferral is based upon EPA's review of the Air Force's Covenant Deferral Request and supporting documentation, including the Air Force's Finding of Suitability for Early Transfer relating to the subject property. As a result, EPA finds that:

1. the property, with the identified restrictions, is suitable for transfer for the use intended by the transferee, and the intended use is consistent with protection of human health and the environment;

2. the deed or other agreement proposed to govern the transfer between the Air Force and the transferee of the property contains the Response Action Assurances required by CERCLA 120(h)(3)(C)(ii);

3. the Air Force has provided proper notice, by publication in a newspaper of general circulation in the vicinity of the property, of the proposed transfer and of the opportunity for the public to submit, within a period of not less than 30 days after the date of the notice, written comments on the suitability of the property for transfer; and

4. the deferral and the transfer of the property will not substantially delay any necessary response action at the property.

When all response actions necessary to protect human health and the environment have been taken, the Air Force shall execute and deliver to the transferee an appropriate document containing a warranty that all such response action has been taken. This warranty will then satisfy the requirement of CERCLA Section 120(h)(3)(A)(ii)(I).

This deferral shall not increase, diminish, or affect in any manner any rights or obligations of the Air Force (including any rights or obligations under CERCLA Sections 106, 107 or 120 existing prior to transfer) with respect to the subject property being transferred.

EPA approval of this deferral is documented in the enclosed *Findings of the Regional Administrator, EPA with the Concurrence of the Governor of New York State*, which has been signed by both New York State Governor Pataki and me. Please note that deferral of the CERCLA Section 120(h)(3)(A)(ii)(I) covenant requirement (that all remedial action necessary to protect human health and the environment has been taken) is solely for the purpose of expediting property transfer to facilitate economic reuse. Such deferral does not imply any preapproval of actions which are being deferred (e.g., investigations, reports, remedial action, etc.) and which nevertheless must be undertaken after transfer.

If you have any questions, you may contact Robert Wing, of my staff, at (212) 637-4332.

Sincerely,

Jeanne M. Fox
Regional Administrator

Enclosure

cc: Honorable George Pataki, Governor, State of New York
John Cahill, Commissioner, NYSDEC
Timothy Fields, EPA-OSWER

FINDINGS OF THE REGIONAL ADMINISTRATOR, EPA
WITH THE CONCURRENCE OF THE GOVERNOR, NEW YORK STATE
REGARDING
EARLY TRANSFER OF PARCEL F2 AT GRIFFISS AIR FORCE BASE (AFB)

I make the following findings to authorize the United States Air Force to transfer Parcel F2 consisting of approximately ninety-four (94) acres on Griffiss Air Force Base and to defer inclusion of the covenant required by Section 120(h)(3)(A)(ii)(I) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in the Quitclaim Deed used to do so. This action is authorized by CERCLA § 120(h)(3)(C) when the United States is not yet able to covenant that "all remedial action necessary to protect human health and the environment... has been taken," an evaluation of the property determines that it can be safely used, and the Air Force provides adequate assurances that it will satisfy its commitment to complete required response actions in a timely manner.

The determination that Parcel F2 is suitable for transfer at this time, based on the property's intended use and the assurances contained in the Quitclaim Deed and/or other agreement related to the transfer (which are required to conform with Section 120(h)(3)(C)(ii) of CERCLA) is not to be construed, either expressly or impliedly, as concurrence on or approval of (1) the findings and/or conclusions set forth in Covenant Deferral Request and its supporting documentation, nor (2) any determination with regard to response actions which have yet to be selected or taken at the Griffiss Air Force Base Site. Furthermore, the determination, as noted above, is not to be construed as a waiver of the right to challenge or dispute the selection of, or performance of, any future response actions in accordance with any agreement or applicable law.

I have reviewed the particulars of the proposed transfer in the attached Covenant Deferral Request for Parcel F2 and make the following findings:

1. The property is suitable for transfer for commercial and industrial use and this use is consistent with protection of human health and the environment as it pertains to CERCLA hazardous substances. This finding is based on the Covenant Deferral Request, the Air Force Finding of Suitability for Early Transfer, and the Air Force Supplemental Environmental Baseline Survey of the Parcel.

2. The Quitclaim Deed and/or other agreement memorializing the transfer contain the response action assurances required by Section 120(h)(3)(C)(ii) of CERCLA. Specifically, the Quitclaim

Deed and agreement protect human health and the environment as it pertains to CERCLA by restricting use of groundwater and access to areas which have not yet been fully evaluated; provide restrictions to ensure that remedial investigations, response actions and oversight activities will not be disrupted; provide that all response actions will be taken and identify schedules for investigations and completion of such actions; and obligate the Air Force to submit a budget request that address schedules for investigations and completion of such actions.

3. The Air Force provided public notice of the proposed transfer on October 10, 1997, by publication in the Rome Sentinel, a newspaper of general circulation in the vicinity of the property, and provided the public with not less than thirty (30) days in which to submit written comments on the suitability of the property for transfer.

4. The deferral and transfer of Parcel F2 will not delay any necessary response action on the property.

Therefore, I find Parcel F2 suitable for transfer in accordance with CERCLA § 120(h)(3)(C).

APPROVAL:

Jeanne M. Fox
Regional Administrator,
U.S. EPA, Region 2

5/10/00
Date

CONCURRENCE:

George E. Pataki
Governor, State of New York

2/23/00
Date

ecology and environment, inc.
International Specialists in the Environment
BUFFALO CORPORATE CENTER
368 Pleasant View Drive, Lancaster, New York 14086
Tel: 716/684-8060, Fax: 716/684-0844

May 10, 2000

Ms. Cathy Jerrard
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Re: Revised Meeting Minutes from April 12, 2000 Briefing for ESI and AOC Investigations, former Griffiss AFB

Dear Ms. Jerrard:

Please find enclosed revised meeting minutes from the above referenced meeting. Please disregard the minutes that were previously submitted. You may contact me at 716/684-8060 should you have any questions pertaining to this matter.

Sincerely,

Thomas E. Ferraro, P.G.
Project Manager

cc: D. Pocze (USEPA)
[redacted] (NYSDEC)
M. McDermott (AFBCA)
M. Wojnas (AFBCA)
R. Pender (USACE)
G. Florentino (E & E)
R. Meyers (E & E)

recycled paper

SUMMARY OF DATA REVIEW/WORKING MEETING
Former Griffiss Air Force Base, Rome, New York
April 12, 2000 @ 1:30 – 4:00PM
Revised

PARTICIPANTS:

Name	Organization	Phone Number
Douglas Pocze	USEPA	212-637-4432
Jonathan Greco	NYSDEC	518-457-3976
Michael McDermott	AFBCA	315-330-2275
Catherine Jerrard	AFBCA	315-330-2275
Mike Wojnas	AFBCA	315-330-2275
Robert Pender	USACE	816-983-3849
Thomas Ferraro	E & E	716-684-8060
Gene Florentino	E & E	716-684-8060
Robert Meyers	E & E	716-684-8060

Subject: A working meeting was held with the regulatory agencies to provide an update of ongoing field investigations: 1) ESI Investigation, 2) SI Investigation, 3) Bldg. 775/Landfill 6 Investigation.

ESI Investigation

R. Meyers provided the regulatory agencies a site by site status. To date, the project is on schedule and there have been no notable deviations from the workplan. No significant evidence of contamination has been noted at the sites. Below is a table of sites discussed with summary notes:

Site	Name	Notes
AOI 07	Southeast Skyline Housing/Former Firing Range	Work progressing in accordance with the Workplan
AOI 102	Lindane Spill Site	Work progressing in accordance with the Workplan
AOI 431	Bivouac Dump Area	Work progressing in accordance with the Workplan
AOI 469	Bldg. 112 – Transformer Oil Spill	Preliminary surface sample data has been received from the laboratory. Two surface sample locations contained PCBs at a concentration of > 1 ppm. The maximum was 7 ppm. These two locations will be the locations for the continuous sampling. AFBCA provided Douglas Pocze, USEPA, a site tour.
OTH 305	Bldg. 305 – Paint Spray Booth	Sediment and standing water samples collected. Dye testing showed the sump drains to Three-Mile Creek.
OTH 5485-2	Trash Scatter Dump (E. of WSA)	Debris removal complete. Soil samples collected. No evidence of hazardous substances was observed.
EOD Range 2	Area 18 – "Rocket Range"	Work progressing in accordance with the Workplan
PCI Site 20	Trash Scatter Dump (Mohawk River)	Debris removal complete. Soil samples collected. No evidence of hazardous substances were observed.
OTH-661	Trash Scatter Dump (Barge Canal)	This site has been removed from this investigation. Photos were shown to the regulatory agencies. Site walks have shown no indication of hazardous substances warranting investigation.

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

JG,
Let's discuss
MLC
5/10/00

10 MAY 2000

MEMORANDUM FOR Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

Douglas Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

FROM AFBCA/DA – Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Program/Peer Review

1. This year's Griffiss Program/Peer Review is presently scheduled for June 27 and June 28 in the Washington D.C. area.

2. Attached is an agenda and the overall schedule.

3. Please advise as to whether or not you can attend.

Michael F. McDermott
BRAC Environmental Coordinator

Attachment 1
Regional Program Peer Review Schedule (4/17/2000)

Day:	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1 - San Antonio, Texas (Kelly AFB)					
Time/Date*	May 1	May 2	May 3	May 4	May 5
8:00 - 12:00		Kelly	Kelly	Williams	Bergstrom
1:00 - 5:00		Kelly	Kelly	Eaker	
Week 2 - San Antonio, Texas (Kelly AFB)					
Time/Date*	May 8	May 9	May 10	May 11	May 12
8:00 - 12:00	Reese (10:00)	England	Richards-Gebaur		
1:00 - 5:00	Carswell	England	Richards-Gebaur		
Week 3 - Columbus, Ohio (Rickenbacker ANGB)					
Time/Date*	May 22	May 23	May 24	May 25	May 26
8:00 - 12:00		K.I. Sawyer	Wurtsmith	Rickenbacker	Gentile
1:00 - 5:00	K.I. Sawyer	Newark	Wurtsmith	Rickenbacker	
Week 4 - Chicago, Illinois (O'Hare ARS)					
Time/Date*	May 29	May 30	May 31	June 1	June 2
8:00 - 12:00	Memorial Day		Grissom	Chanute	Chanute
1:00 - 5:00	Memorial Day		Grissom	Chanute	O'Hare
Week 5 - Rosslyn, Virginia (HQ AFBCA)**					
Time/Date*	June 5	June 6	June 7	June 8	June 9
8:00 - 12:00		Plattsburgh	Myrtle Beach	Myrtle Beach	Homestead
1:00 - 5:00		Platts/Roslyn	Myrtle Beach	Homestead	
Week 6 - Sacramento, California (McClellan AFB)					
Time/Date*	June 12	June 13	June 14	June 15	June 16
8:00 - 12:00	Mather (10:00)	Mather/Onizuka	Castle	McClellan	McClellan
1:00 - 5:00	Mather	Castle	Castle	McClellan	McClellan

Attachment 1
Regional Program Peer Review Schedule (4/17/2000)

Day:	Monday	Tuesday	Wednesday	Thursday	Friday

Week 7 - Riverside, California (March AFB)					
Time/Date*	June 19	June 20	June 21	June 22	June 23
8:00 - 12:00		Norton	George	Lowry	Lowry
1:00 - 5:00	March/Ontario	Norton/George	George	Lowry	

Week 8 - Rosslyn, Virginia (HQ AFBCA)**					
Time/Date*	June 26	June 27	June 28	June 29	June 30
8:00 - 12:00		Griffiss	Griffiss	Loring	Pease
1:00 - 5:00		Griffiss	Griffiss	Loring/Pease	

Notes:

* Anticipated start time for each regional review meeting.
** Meetings will be held at Booz-Allen & Hamilton office in Crystal City, VA.

Dates and locations are subject to change.

Attachment 2
Program Peer Review Presentation Requirements

The Program Peer Review (PPR) presentation will consist of five segments:

- Installation Overview and Environmental Setting
- Reuse Overview
- Installation Environmental Closeout Strategy Overview
- Non-IRP Environmental Program Areas
- IRP Sites and Areas of Concern

FY 2001 programming documents, identified requirements for FY 2002-2007, and ongoing FY 1999 and 2000 projects that could impact current schedules and out-year requirements will be reviewed during the last two segments. Materials and information to be used in the regional PPR meetings are listed at the end of this attachment.

1. Installation Overview and Environmental Setting

The purpose of this segment of your presentation is to provide the PPR Team with an overview of the installation and to set the context for subsequent discussion of the status of the various environmental program areas and associated programmed requirements. You will need to bring appropriate large size maps/photographs of the installation to be used in your presentation. Please ensure that the discussion of your installation includes all annex or other non-contiguous facilities that are part of the BRAC action.

In your presentation, you should describe the layout and environmental setting of the installation (i.e., provide a map/photograph tour of the base), focusing on the following:

- Installation history: briefly discuss the history of the installation, including any specific or unique missions or activities that are directly related to any environmental restoration sites.

- Installation land use: describe in general terms the land use at the installation prior to the closure of the installation (e.g., airfield, industrial, residential, commercial/community, and recreational) and discuss any major changes in land uses that occurred historically.

- Key facilities/buildings and infrastructure: describe key facilities and infrastructure at the installation, such as maintenance hangars, POL areas and pipeline systems, steam plants, wastewater treatment plant, firing ranges, fire training areas, weapon storage areas, and utility systems.

- Surrounding offbase land use: describe in general terms the land use on property immediately adjacent to the installation and other property in the vicinity of the installation impacted by environmental restoration sites.

SI Investigation

Two sites make up this investigation. These sites are 1) AOC 09, 2) On-Base Groundwater AOC. Maps of these sites showing sample concentrations were reviewed with the regulatory agencies. AOC 09 data shows elevated levels of TCE, DCE, VC, and Chlorobenzene. Data from the On-Base Groundwater AOC shows elevated levels of TCE and Tetrachloroethene (PCE).

AOC 09

Groundwater

AFBCA discussed that the data from AOC 09 is potentially showing evidence of reductive dechlorinization (natural attenuation). T. Ferraro presented a draft cross sectional drawing of the area. AFBCA showed that the site appears to be bounded on three sides and acknowledged that the site extends across Perimeter Road. AFBCA is currently developing plans to collect additional groundwater samples across Perimeter Road. The regulatory agencies recommended that vertical profile groundwater samples be collected at the geoprobe locations across Perimeter Road.

Trenching

R. Meyers discussed what was observed during trenching operations at this site to locate the boundaries of the suspected landfill. R. Meyers reported that this did not appear to be a landfill in the classical sense. Sporadic debris such as concrete rubble was unearthed, however, items such as household waste was not discovered. R. Meyers estimated that the area contains less than 1% debris. R. Meyers also noted that the field monitoring instruments did not detect elevated levels of contamination. J. Greco stated that this does not appear to meet the definition of a landfill and as such would not need to be remediated as a landfill.

On-Base Groundwater AOC

Data from this site was reviewed. AFBCA stated that the site appears to be delineated. However, the regulatory agencies stated that 2 – 3 additional vertical profile groundwater samples should be collected around building 817. AFBCA is currently developing plans to collect groundwater samples at three additional locations as requested by the regulatory agencies. These locations will be vertically profiled whereby shallow, intermediate, and deep samples will be collected.

Bldg. 775/Landfill 6 Investigation

G. Florentino provided the regulatory agencies a status of the B775/LF6 field program. Two sites make up this investigation. These sites are 1) the Building 775 TCE Contamination AOC, and 2) the Landfill 6 AOC. A map of these sites showing hydropunch data and existing well data was presented to the regulatory agencies. Both sites show elevated levels of TCE and DCE, and VC was detected at LF6.

To date, the project is on schedule and there have been no notable deviations from the workplan. However, the areal extent and level of contamination at both sites is larger and higher, respectively, than expected. Therefore, additional in-field sampling is being performed to determine the lateral and vertical extent of the contamination. To date, a determination of whether the contamination at each site represents the same source area(s), or are considered separate plumes has not been made.

- Environmental setting: describe the environmental setting of the installation in terms of the topography, geology and soils, groundwater hydrology, surface water hydrology (e.g., lakes, streams, and floodplains), and natural and cultural resource areas (e.g., forested areas, wetlands, and major archaeological sites and historic structures). If a conceptual site model has been developed for the installation, please incorporate it into your discussion.

- Regulatory programs: discuss the regulatory programs under which the various environmental program areas at the installation are being conducted and any environmental permits that are still in effect at your installation.

2. Reuse Overview

For this segment of your presentation you will need to provide an overview of current and proposed reuses of the installation. The following types of information should be discussed:

- Reuse parcelization (include a parcel map in your presentation)
- Local Redevelopment Authority (LRA) composition and status
- Current property reuse status, including major reuse activities that have occurred or are proposed
- Actual and projected schedule for transfer of reuse parcels (Property Transfer Schedule report from the AFBCA Management Information System [MIS] will be provided)

3. Installation Environmental Closeout Strategy Overview

During this segment, you will need to provide an overview of key environmental restoration sites at your installation and your strategy for closing out all environmental program areas where future requirements remain. You should present a summary of remaining requirements, including ongoing or future investigations, operation and maintenance (O&M) of remedial systems, and closeout of remedial systems. Detailed information about specific sites will be discussed in segments 4 and 5. Your strategy overview should address the following questions:

What key decision points remain to obtain remedy in-place status for all sites?

What requirements remain to facilitate transfer of all remaining property at your installation (e.g., Operating Properly and Successfully [OPS] determinations)?

Have you initiated discussions with your regulators regarding requirements for obtaining OPS for all applicable sites?

What long-term requirements or liabilities associated with sites at your installation will remain after all property is transferred?

What will the five-year review for your installation need to consider in 2010? 2030? – e.g., O&M of remedial systems, maintenance of landfills, monitored natural attenuation, and use restrictions/institutional controls.

What infrastructure will eventually need to be shutdown and/or removed following completion of remedial activities (e.g., remedial system components, pipelines, monitoring wells, and other types of wells)?

You may want to include a summary schedule showing the key decision points related to the above questions in your presentation.

4. Non-IRP Environmental Program Areas

For this segment of your presentation you will need to provide a summary of the status of all non-IRP environmental program areas. For each of the program areas/environmental factors listed below and any others not listed that will require future action, please provide a brief discussion of the status of each and describe any future actions that will be required to fully closeout each program area.

- Underground storage tanks (USTs)
- Aboveground storage tanks
- Hydrant fueling and pipeline systems
- Wastewater-related systems, including, but not limited to, oil/water separators (OWSs), sumps, drywells, septic tanks, silver recovery units, grease traps, and other miscellaneous systems
- Ordnance-related sites, such as firing ranges, skeet and trap ranges, and explosive ordnance disposal (EOD) areas
- Spill sites regulated under state programs
- Other environmental factors, such as Solid Waste Management Units (SWMUs) and Environmental Baseline Survey (EBS) concerns not discussed elsewhere, hazardous material/hazardous waste storage areas, and PCBs
- Disclosure items, including asbestos, lead-based paint, and radon

Your discussion of the status of each program area should include a summary of total actions required (e.g., total number of USTs), completed actions (e.g., USTs removed, closed in-place, and transferred), and ongoing or future actions (e.g., USTs to be removed), as well as any regulatory or policy issues that need resolution. For any ongoing or future actions, you will need to discuss your strategy and any requirements for closing out the affected program areas. *BP 600* projects for FY2001 and those identified for FY2002-2007 will be reviewed as part of your discussion. The status of FY1999 and FY2000 projects that could impact current schedules and out-year requirements will also be reviewed. You should also discuss the status of existing permits associated with any of these program areas. To facilitate the discussion, any existing lists or summary tables that you use to track closeout of the various environmental factors should be provided as handouts to the PPR Team.

5. IRP Sites and Areas of Concern

During this segment of your presentation, you will need to discuss the status of **all** IRP sites, including any Areas of Concerns (AOCs), tracked in the AFBCA MIS. Similar or associated sites (e.g., by Operable Unit) can be grouped together in your discussion, but the status of each individual site will need to be addressed. In general, sites should be grouped as follows (a list will be provided to you by AFBCA/EV identifying sites in each group based on MIS data):

- Sites still in the investigation phase/sites without signed Records of Decision/Decision Documents (RODs/DDs)

- Sites with signed RODs/DDs
  - Sites with Remedial Design (RD)/Remedial Action – Construction (RA-C) actions planned
  - Sites with ongoing Remedial Action – Operation (RA-O) activities
  - Sites with ongoing Long-Term Monitoring (LTM) activities

- Sites identified as achieving site closeout
  - For these sites, you should briefly discuss what actions were taken, if any, and whether the sites were closed to unrestricted use cleanup levels. If any contamination was left in place, please describe any restrictions that will be required at each affected site.

- Areas of Concern

For each site/AOC, you should discuss the following:

- Site description
- Media impacted (e.g., soil, groundwater)
- Contaminants of Concern (COCs)
- History of IRP activities at the site, including interim actions
- Status of the site, including proposed activities
- Proposed or implemented remedy and cleanup objectives
- Remedial system components (e.g., infrastructure) associated with the site, including land use controls/institutional controls (LUC/ICs)
- Assumptions made regarding future land use, cleanup objectives, and remedy decisions
- OPS determination requirements
- Basis for duration of identified RA-O and LTM phases, including effect on cost-to-complete estimates

For any ongoing or future actions, you will need to discuss your strategy and any requirements for closing out the affected sites, as well as any regulatory or policy issues that need resolution. *BP 700* projects programmed for FY2001 and those identified for FY2002-2007 will be reviewed as part of your discussion. The status of FY1999 and FY2000 projects that could impact current schedules and out-year requirements will also

be reviewed. Several reports generated from the MIS will be provided to you and will be used to discuss the identified schedule and status of each site. To facilitate the discussion, tables summarizing information (e.g., site description, COCs, and actions taken) about the IRP sites at your installation (e.g., from your EBS or BCP) should be provided as handouts to the PPR Team.

For those sites that have not achieved remedy in place (RIP), special emphasis will be placed on evaluating current site schedules to ensure that all requirements and critical decision points have been identified to support identified RIP dates. In addition, for those sites that will require OPS determinations, emphasis will be placed on evaluating current schedules and requirements in terms of facilitating property transfer.

NOTE: If you use site ID aliases or other references to sites or groups of sites (e.g., Operable Units) that are different from those used to track sites in the MIS, you should prepare a translation table for the PPR Team to use when discussing the sites. In discussing sites, you should make every attempt to use the MIS site IDs in discussing your sites.

Materials/Information to be Used in Regional Program Peer Reviews

Programming Documents

A. Form 1391s
B. Narratives
C. Detailed Cost Estimates
D. Other Supporting Documentation (e.g., maps, portions of technical documents)

The 1391s, narratives, and submitted cost estimates will be uploaded to the PPR Working Group web site following submittal to the HQ Environmental Coordinators. Other supporting documentation required in discussing individual projects should be brought to the regional meeting by the installation.

AFBCA MIS Data Reports

A. List of sites grouped by current status (e.g., investigation/pre-ROD/DD, RD, RA-C, RA-O, LTM, and SC)
B. Milestone Date Summary Report
C. Site Milestones/Phases w/Assoc. Projects Report (Non SC Sites)
D. Site Milestones/Phases w/Assoc. Projects Report (SC Sites)
E. Sites Associated with Projects Report (FY1999-2007)
F. Projects Associated with Sites Report (FY1999-2007)
G. FY2001 Project List
H. Out-Year Project List (FY2002-2007)
I. Real Estate Property Transfer Schedule

These items will be uploaded to the PPR Working Group web site and/or e-mailed to each installation prior to the review meeting by AFBCA/EV.

Other Documentation

A. Large-size maps and aerial photographs
B. Handouts summarizing non-IRP and IRP program elements
C. FY1999 BRAC Cleanup Plan (BCP) Abstract
D. FY 1999 DoD Annual Report to Congress narrative and summary data tables

Installations should bring Items A and B to the regional meeting. Items C and D will be uploaded to the PPR website. At least one large-scale map should be brought to the regional meeting, but installations are strongly encourage to bring multiple maps (or use overlays) to show, at a minimum, such features as IRP sites, key non-IRP sites, groundwater plumes, USTs, OWSs, hydrant systems/pipelines, ordnance sites, and reuse parcels. Smaller-size maps for distribution to the PPR Team can also be provided.

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518)
Website: www.dec.state.ny.us



John P. Cahill
Commissioner

May 5, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Finding of Suitability to Transfer (FOST); Bldg. 300
Griffiss Air Force Base, Site ID No. 633006

I have reviewed the referenced document and have no comments.

If you have any questions on this matter, please contact me at (518) 457-0549.

Sincerely,

Jonathan Greco

Jonathan Greco
Project Manager
Division of Environmental
Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swedowski, Reg. 6, Watertown
L. Hansak
S. Dimeo

bc: S. Ervolina
M. Chen



J &

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
Environmental Section
153 Brooks Road
Griffiss Air Force Base, NY 13441-4505

MAY 3 2000

Re: Review of the Interim Remedial Action Report AOI 100

Dear Mr McDermott:

I have reviewed the *Interim Remedial Action Report for the Area of Interest 100, Former Paint Staging Area*, dated February 2000, and have found, based upon the sampling results, this site warrants no further action. Because a removal action was taken by the Air Force for which you seek EPA approval, the site should proceed through the CERCLA Record of Decision (ROD) process. The ROD would document the removal activities taken as well as the sampling activities supporting the no further action determination. It is my understanding that several other sites are similar in status to AOI 100 and also require RODs to document removal actions previously undertaken by the Air Force. Therefore, I recommend one ROD be submitted for all such sites.

Should you have any questions, I can be reached at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Project Manager

cc: J. Greco, NYSDEC

RECEIVED
8 2000

JG

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

28 APR 2000

MEMORANDUM FOR Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

Douglas Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

FROM AFBCA/DA – Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Finding of Suitability to Transfer – Building 300 Land

1. AFBCA/DA – Griffiss has prepared the attached draft FOST (Finding of Suitability to Transfer) for the Building 300 land. In support of the subject negotiated sale, we request that your organization review the attached draft FOST and provide written review comments to this office within twenty (20) working days from the time you receive this package.

2. If you have any questions on this FOST, please contact Cathy Jerrard, 315-330-2275.

Michael F. McDermott
BRAC Environmental Coordinator

Attachment:
Draft FOST, Building 300 Land

cc: AFBCA/DA (Ms. Lynn Hancsak)

RECEIVED
BUREAU OF
REMEDIAL ACTION

AFBCA/DA - GRIFFISS

BUILDING 300 LAND

DRAFT

FINDING OF SUITABILITY TO TRANSFER (FOST)

APRIL 2000

FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
GRIFFISS AIR FORCE BASE (AFB), NEW YORK

1. PURPOSE

1.1 The purpose of this Finding of Suitability to Transfer (FOST) is to document environmentally-related findings and the suitability to transfer for the proposed sale of property at Griffiss Air Force Base (AFB), NY, to the Upstate Federal Credit Union. The property is described in Section 2 below.

1.2 The property will be transferred to the Upstate Federal Credit Union by negotiated sale.

1.3 This FOST is a result of a thorough analysis of information contained in the following documents: (1) Final Environmental Impact Statement (FEIS) for the Disposal and Reuse of Griffiss Air Force Base, New York, November 1995; (2) Basewide Environmental Baseline Survey (EBS) for Griffiss Air Force Base, New York, September 1994; (3) Basewide Environmental Baseline Survey Update, March 1997; (4) Partial Record of Decision (PROD), June 1996; (5) Draft Final Remedial Investigations (RI) Report dated December 1996; (6) Griffiss Area of Interest (AOI) Reports dated November 1996 (Group I), May 1997 (Group II and III) and July 1998 (Expanded Site Investigation); (7) Unexploded Ordnance Archives Search Report - Recommendations and Findings, dated November 1997; (8) Final BRAC Removal Actions (UXO) Report, dated October 30, 1998; (9) Phase II Archaeological Investigations of 20 Sites at Griffiss AFB, dated April 1997; and (10) a Visual Site Inspection (VSI) conducted in April 2000. A Visual Site Inspection (VSI) form describing information gathered during the VSI is included in Exhibit 1 of this document.

2. PROPERTY DESCRIPTION

The property to be sold is shown on the map (Exhibit 2) and consists of a total of approximately 1-acre. Building 300 is not included in the sale, as the buyer presently owns the building.

3. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE

The environmental impacts of this proposal have been adequately analyzed and disclosed in compliance with NEPA. These impacts are analyzed in the FEIS and are Categorically Excluded from further analysis as described in CATEX #A2.3.11 and documented on the attached United States Air Force (USAF) Form 813 (Exhibit 3). Based on this analysis, the environmental impacts of proceeding with the sale are not sufficiently adverse to human health and the environment to out-weigh the other advantages to the community and the public interest of this sale and to prevent the sale of the property.

4. ENVIRONMENTAL CONDITION OF THE PROPERTY

Based on a review of the Basewide EBS and a VSI of the property, the property is considered

Department of Defense (DoD) Environmental Condition Category 1. Category 1 areas are those areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

The United States Environmental Protection Agency (USEPA) has concurred that no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

5. DEED RESTRICTIONS AND NOTIFICATIONS

The environmental documents listed in Section 1.3 were evaluated to identify environmental factors which may warrant constraints on certain activities in order to ensure that the intended use as commercial is consistent with protection of human health and the environment. Such constraints are generally embodied as restrictions in the deed or as specific notifications in the deed or other documents supporting the transaction. The factors that require either deed restrictions or specific notifications are identified in Exhibit 4 and are discussed below. The remaining factors listed in Exhibit 4 pose no threat to human health or the environment and, therefore, require neither deed restriction nor notifications to the buyer.

5.1 Hazardous Substances Notification

A hazardous substance notification need not be given because no hazardous substances in quantities exceeding 1,000 kilograms or the hazardous substance's reportable quantity found at 40 CFR Part 302.4 (whichever is greater) were stored for one (1) year or more, or were known to have been released, treated, or disposed of on the property. In addition, no evidence of storage, release, or disposal of any hazardous substances to the environment was identified during the VSI.

5.2 Installation Restoration Program (IRP), Area of Concern (AOC), and Area of Interest (AOI) Sites

The USAF, USEPA, and New York State Department of Environmental Conservation (NYSDEC) entered into a Federal Facility Agreement (FFA) effective August 21, 1990, under Section 120 of CERCLA.

There are no IRP, AOC, or AOI sites located within the property.

The transaction documents will restrict property use to commercial use. The transaction documents will prohibit the extraction, utilization, or consumption of any water from the aquifer below the surface of the ground within the property boundary unless the groundwater has been tested and found to meet all applicable standards and unless such owner or occupant obtains the prior written approval from the New York State Department of Health. The transaction documents also will provide that the aquifer should not be managed in any way that could spread or exacerbate environmental contamination or open exposure pathways to humans or the environment. The transaction documents will include provisions that the buyer and its

successors and assignees will be required to comply with all applicable Federal and State laws and regulations with regard to activities affecting the groundwater in the aquifer.

The buyer is entitled to the statutory indemnification for closing bases pursuant to Section 330 of the National Defense Authorization Act for Fiscal Year 1993, Public Law 102-484, as amended by Section 1002 of the National Defense Authorization Act for Fiscal Year 1994, Public Law 103-160. Provisions will be included in the Deed to allow the Air Force, NYSDEC and USEPA and their representatives access to the property in any case in which any such response or corrective action is found to be necessary, or where such access is necessary to carry out a response or corrective action on adjoining property.

5.3 Sanitary Sewer Systems (Wastewater)

Building 300 is connected to a sanitary sewer. The transaction documents will require the buyer to submit an application for discharging to the sanitary sewer and to meet all applicable wastewater discharge permit standards.

5.4 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property to be transferred has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven (11) munitions related sites are identified to be present within the property. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property to be sold.

All ground disturbing activities performed by the buyer shall be performed in a manner such that the identification of ordnance related material may occur. Upon discovery of any suspected ordnance-related material the appropriate authorities shall be notified.

6. PUBLIC COMMENTS

On April 20, 2000, public notice of the proposed sale of the property to the Upstate Federal Credit Union was provided by publication in one (1) local newspaper (Exhibit 5). *No public comments were received within thirty (30) days of the public notice.*

7. REGULATOR COORDINATION

The NYSDEC and the USEPA were notified on August 6, 1997 of the initiation of the FOST. Consolidated draft documents were provided on April 28, 2000 for formal review and comment. Regulator comments (Exhibit 6) were received on (date) from the USEPA and NYSDEC and were incorporated or addressed in the document. A draft final FOST was provided for final coordination on (date). The regulators concurred that their comments have been accurately addressed.

8. UNRESOLVED REGULATOR COMMENTS

All comments provided by the regulators were addressed and/or incorporated in this document. The Air Force's response to these comments is provided in Exhibit 7. There were no unresolved comments.

9. FINDING OF SUITABILITY TO TRANSFER

The proposal to transfer this property has been adequately assessed and evaluated for (a) the presence of hazardous substances and contamination on the property; (b) environmental impacts anticipated from the intended use of the property; and (c) the adequacy of use restrictions and notifications to ensure that the intended use is consistent with protection of human health and the environment. The anticipated future use of this property does not present a current or future risk to human health or the environment, subject to inclusion and compliance with the appropriate restrictions on use and disclosures as addressed above. The property, therefore, is suitable to transfer.

_____
Date

ALBERT F. LOWAS, JR.
Director
Air Force Base Conversion Agency

Exhibits:
1. Visual Site Inspection Form
2. Property Map
3. Air Force Standard Form 813
4. Environmental Factors Considered
5. Public Notice
6. Regulator Comments
7. Air Force Response to Regulator Comments
8. *Public Comments*
9. Air Force Response to Public Comments

Exhibit 1

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** April 2000
Facility #: Land at Building 300	**Construction Year:** 1965	**Sq. Ft.:**2,700
Inspected By: Cathy Jerrard		
Facilities Current Function: Credit Union		
Prior Facility Use: Credit Union		
Point of Contact:		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: None SAP: None WPP: None Other: None		
Exterior Inspection: Very good condition.		
Interior Inspection: Not required, buyer currently owns building.		
Comments:		

Exhibit 2

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
PROPERTY MAP

Exhibit 3

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
AF Form 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol
RCS:

INSTRUCTIONS: *Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I - PROPONENT INFORMATION

1. TO *(Environmental Planning Function)*	2. FROM *(Proponent organization and functional address symbol)*	2a. TELEPHONE NO.
AFBCA/DA - Griffiss, Environmental	AFBCA/DA - Griffiss, Real Estate	315-330-4273

3. TITLE OF PROPOSED ACTION
Sell the land associated with Building 300 to the Upstate Federal Credit Union.

4. PURPOSE AND NEED FOR ACTION *(Identify decision to be made and need date)*

Upstate Federal Credit Union requests a purchase of the land associated with Building 300.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES *(DOPAA) (Provide sufficient details for evaluation of the total action.)*

Continue operation of the Credit Union. Building 300 is currently owned by the buyer.

6. PROPONENT APPROVAL *(Name and Grade)*	6a. SIGNATURE	6b. DATE
Anna L. Lemaire, GS - 13	Anna L Lemaire	4/28/00

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. *(Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)*	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*		X		
9. WATER RESOURCES *(Quality, quantity, source, etc.)*		X		
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity-distance, etc.)*		X		
11. HAZARDOUS MATERIALS/WASTE *(Use/storage/generation, solid waste, etc.)*		X		
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, flora, fauna, etc.)*		X		
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)*		X		
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*		X		
16. OTHER *(Potential impacts not addressed above.)*		X		

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17. [X] PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # A2.3.11 ; OR
[ ] PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS
These impacts are categorically excluded from further analysis based on CATEX #A2.3.11 which encompasses actions similar to other actions which have been determined to have an insignificant impact in a similar setting as established in the Final Environmental Impact Statement (FEIS) for Griffiss AFB, dated Nov 95. Based on this analysis, the environmental impacts of the deed are not sufficiently adverse to human health and the environment to outweigh the other advantages to the community and the public interest, or to prevent the sale of this property.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION *(Name and Grade)*	19a. SIGNATURE	19b. DATE
Michael F. McDermott, GS - 13	M F McDermott	27 Apr 00

Exhibit 4

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND

Transfer Restriction or Notification Required?		*Environmental Factors Considered*
No	**Yes**	
		Environmental Restoration, Hazardous Substances, Petroleum
X		Hazardous Substances (Notification)
X		Installation Restoration Program (IRP) and Areas of Concern
X		Medical/Biohazardous Wastes
X		Oil/Water Separators (OWSs)
	X	Unexploded Ordnance
X		Radioactive & Mixed Wastes
X		Storage Tanks (USTs/ASTs)
		Disclosure Factors/Resources:
X		Asbestos
X		Drinking Water Quality
X		Indoor Air Quality
X		Lead-Based Paint (High-Priority Facilities)
X		Lead-Based Paint (Other Facilities)
X		PCBs
X		Radon
		Other Factors:
X		Air Conformity/Air Permits
X		Energy (Utilities)
X		Flood plains
X		Hazardous Waste Management (By Lessee)
X		Historic Property (Archeological/Native American, Palentological)
X		OSHA (Occupational Safety & Health Administration)
X		Outdoor Air Quality
X		Prime/Unique Farmlands:
	X	Sanitary Sewer Systems (Wastewater)
X		Sensitive Habitat
X		Septic Tanks (Wastewater)
X		Solid Waste (Disposal of demolition materials)
X		Threatened and Endangered Species
X		Transportation
X		Wetlands

Exhibit 5

Griffiss AFB, NY
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
PUBLIC NOTICE

STATE OF NEW YORK, } ss:
COUNTY OF ONEIDA. }

Joseph M. Entelisano

being sworn, says he is, and during the time hereinafter mentioned, was Advertising Director of the DAILY SENTINEL, a newspaper printed and published in the County of Oneida, aforesaid; and that the annexed printed Notice was inserted and published in said Newspaper once / commencing

on the 20 day of April , 2000

to wit: April 20

April 20 , 2000

Joseph M. Entelisano

Sworn to before me this

20 day of April , 2000

Linda Weaver
Notary Public in the State of New York
Appointed in Oneida County
My Commission Expires September 30, 2001

Linda Weaver
Notary Public

PUBLIC NOTICE
NOTICE OF INTENT TO SIGN
FINDING OF SUITABILITY TO TRANSFER

The United States Air Force Base Conversion Agency (AFBCA) is giving Notice of Intent to Sign a Finding of Suitability to Transfer (FOST) regarding the following parcel of property located at the former Griffiss Air Force Base, Rome, New York:

Approximately one (1) acre of land beneath Building No. 300, now known as the Upstate Federal Credit Union

The FOST is based on an extensive review of the environmental condition of the property. This review was done in consultation with federal and state environmental regulatory agencies. After the completion of an Environmental Impact Statement and pursuant to the Partial Record of Decision on the Reuse and Disposal of Griffiss Air Force Base dated June 1996, the property will be sold through a negotiated sale to Upstate Federal Credit Union.

The property became available as a result of Public Law 101-510, Defense Base Closure and Realignment Act of 1990, and the subsequent realignment of Griffiss Air Force Base.

A copy of the FOST including regulatory comments, and responses and supporting environmental documentation including the Supplemental Environmental Baseline Survey (SEBS) will be added to the Administrative Record.

Individuals interested in reviewing the information should contact:

ANNA LEMAIRE
SITE MANAGER
AIR FORCE BASE CONVERSION AGENCY
153 BROOKS ROAD
ROME, NEW YORK 13441-4105
(315) 330-2275

Exhibit 6

Griffiss AFB, NY
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
REGULATOR COMMENTS

Exhibit 7

Griffiss AFB, NY
FINDING OF SUITABILITY TO TRANSFER (FOST)
BUILDING 300 LAND
AFBCA RESPONSE TO REGULATORY COMMENTS

April 2000

SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

FOR BUILDING 300 LAND

Griffiss AFB, NY

CHAPTER 1 - PURPOSE OF THE SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

1.1 Introduction. This Supplemental Environmental Baseline Survey (SEBS) has been prepared to document environmental conditions of the Building 300 land resulting from the storage, release, or disposal of hazardous substances and/or petroleum products and other environmental conditions over the area's history in order to establish a baseline for use by the United States Air Force (USAF) in making decisions concerning real property transactions. Changes in the environmental condition of the property since publication of the Griffiss Air Force Base (AFB) Basewide EBS are also documented in this SEBS.

1.2 Description:

The property to be sold consists of a total of approximately 1-acre. Building 300 is not included in the sale, as the building is owned by the Upstate Federal Credit Union.

CHAPTER 2- SURVEY METHODOLOGY

2.1 Approach and Rationale. The data used in preparing this SEBS were obtained from the Griffiss AFB Basewide EBS dated September 1994 and updated in March 1997. The EBS was based on record searches, interviews, and visual site inspections (VSIs). The data and information contained in the EBS were prepared in accordance with Department of Defense (DoD) policies and guidance, as they pertain to the procedures for conducting an EBS. A confirmatory VSI was conducted and additional data was collected in April 2000 to verify the condition of the property.

The Building 300 land is now considered Department of Defense Environmental Condition Category 1. Category 1 areas are those areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

The United States Environmental Protection Agency (USEPA) has concurred that no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

2.1.1 Description of Documents Reviewed. A list of documentation reviewed is provided in the Griffiss AFB Basewide EBS. The primary types of studies or investigations included Installation Restoration Program (IRP) studies, USAF Base Realignment and Closure (BRAC)

Cleanup Plan (April 1994), the 1993 USAF Real Property Inventory, underground storage tank/above ground storage tank (UST/AST) investigations, National Environmental Policy Act documentation, the 1993 Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings Preliminary Report, and Federal, State, and local documentation.

2.1.2 Inspection of Properties Conducted. A VSI of the property was conducted during preparation of the Basewide EBS. A confirmatory VSI was conducted in April 2000 to ensure that no change in property condition had occurred since the initial Basewide EBS was published. The purpose of the VSI was to identify any stained soils, stressed vegetation, leachate seepages, unusual odors, etc., which might indicate environmental concern.

2.1.3 Personnel Interviews. Base personnel were contacted and interviewed, when possible, during the initial records search and VSI trips conducted for the Basewide EBS. Personnel interviewed during the Griffiss AFB Basewide EBS included representatives from civil engineering, real property, industrial engineering, and operations. The USAF Remedial Project Manager (RPM), who is responsible for initiating and managing projects that are necessary to evaluate and cleanup sites that have been contaminated with hazardous substances and waste from past base activities, was also interviewed.

CHAPTER 3 - FINDINGS FOR BUILDING 300 LAND

3.1 Environmental Setting. Griffiss AFB occupies approximately 3,540 acres in central Oneida County in upstate New York, in the City of Rome. A description of the area's climate, topography, hydrology, geology and utilities are contained in Section 3.2 of the Griffiss AFB Basewide EBS.

3.2 Property Categorization Resources

3.2.1 Environmental Factors. There are/was no record or evidence of medical/biohazardous waste, hazardous substance/material storage, oil/water separators, storage tanks, pesticides, and radioactive waste releases on the subject property. No PCB-containing equipment is located on the property. No threatened or endangered species, sensitive habitats, cultural resources, prime or unique farmland, wetland or floodplain concerns are associated with the property. There are no IRP, Area of Concern (AOC), or Area of Interest (AOI) Sites on the property.

3.2.2 Sanitary Sewer Systems (Wastewater)

Building 300 is connected to a sanitary sewer.

3.2.3 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property to be transferred has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the

USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven (11) munitions related sites are identified to be present within the property. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property to be transferred.

CHAPTER 4-FINDINGS FOR ADJACENT PROPERTIES

4.1 Adjacent Properties. Appendix A, Table A-1 in the Basewide EBS, identifies the properties that are adjacent to the subject property.

There are no IRP sites, AOCs, or AOIs located on adjacent property.

CHAPTER 5-PROPERTY TRANSFER CATEGORY

5.1 Conclusions. The Building 300 land is now considered Department of Defense Environmental Condition Category 1. Category 1 areas are those areas where no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

The United States Environmental Protection Agency (USEPA) has concurred that no storage, release, or disposal of hazardous substances or petroleum products has occurred, including no migration of these substances from adjacent areas.

CHAPTER 6-CERTIFICATION

I certify that the property conditions stated in this survey are based on a thorough review of available records, visual inspections, and sampling and analysis as noted, and are true and correct to the best of my knowledge and belief.

MICHAEL F. McDERMOTT
BRAC Environmental Coordinator
AFBCA/DA - Griffiss

4/28/00
Date

JG

New York State Department of Environmental Conservation Division of Solid and Hazardous Materials
Bureau of Radiation & Hazardous Site Management, Room 460
50 Wolf Road, Albany, New York 12233-7255
Phone: (518) 457-9253 • FAX: (518) 457-9240
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

April 21, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome NY, 13441-4105

Dear Mr. McDermott:

RE: Air National Guard Hazardous Waste Storage Areas

The New York State Department of Environmental Conservation (the Department) has received the "Draft Closure Report for the Air National Guard Hazardous Waste Satellite Storage Areas at the former Griffiss Air Force Base, Rome, New York". The closure report presents the results and recommended actions based on the sampling and remediation of five hazardous waste storage areas at the former Griffiss Air Force Base. Storage of materials at these areas was terminated in conjunction with dissolution of the Air National Guard Wing in October 1998.

Upon review of the report, the Department approves closure of the hazardous waste/hazardous material storage areas addressed in this report.

If you have any questions on this matter please call me at (518) 457-9253.

Sincerely,

Kent D. Johnson
Engineering Geologist II

cc: J. Reidy, USEPA Region II
T. Tyoe, Region 6
J. Greco, DHWR

KJ/hmp
JohnsonAngclos.wpd

RECEIVED
APR 25 2000
BUREAU OF

NEW YORK STATE CENSUS 2000
BE PART OF THE COUNT

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

20 APR 2000

MEMORANDUM FOR Mr. Doug Pocze
USEPA Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

Mr. Sal Ervolina, Director/
Mr. Jonathan Greco, Project Manager
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Draft Work Plan for Building 782 Chlorinated Plume

1. Enclosed please find the draft Chlorinated Plume Work Plan for additional sampling and plume delineation investigations that are proposed for the Apron 2 area east and south of Building 782.

2. Please review and provide comments or concurrence by May 5, 2000 so that we may proceed with the fieldwork by early summer. If you have any questions, please contact Mike Wojnas, 315-330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachments:
Draft B/782 Field Work Plan

cc:
W. Brower (w/o Atch)

RECEIVED
APR 21

FPM group — Engineering and Environmental Science

FPM Group, Ltd.
FPM Engineering Group, P.C.
formerly Fanning, Phillips and Molnar

CORPORATE HEADQUARTERS
909 Marconi Avenue
Ronkonkoma, NY 11779
631/737-6200
FAX 631/737-2410

February 7th, 2000

Mr. Wade Brower
AFCEE/ERB-F
c/o AFBCA/DA-Griffiss
153 Brooks Road
Griffiss AFB, NY 13441-4105

Re: **Draft Letter Work Plan For Building 782 Chlorinated Plume**
Griffiss AFB, Rome, NY
Contract No. F41624-95-D-8003/00011
FPM Project No. 444-97-11

Dear Mr. Brower:

Enclosed please find a draft copy of the Building 782 Chlorinated Plume letter Work Plan for additional sampling and investigation. Pending Air Force approval, FPM intends to schedule the field effort during April, 2000.

Should you have any questions, please do not hesitate to call.

Very truly yours,

John S. Bukoski
Environmental Scientist

Gaby A. Atik, P.E.
Director, Regional Operations

enclosure
copied: Roy Willis, AFCEE /ERB (1 copy)
Michael Wojnas (1 copy)
AFCEE/MSP (letter only)

E:\AFCEE\GRIFFISS\444-97-11\Correspondence\782LetterWP.doc

DRAFT

WORK PLAN

Prepared for:

Site Investigation
Building 782 Chlorinated Plume
Griffiss Air Force Base
Rome, New York

through

AFCEE
3207 North Road
Brooks AFB, TX 78235-5673

Contract No. F41624-95-D-8003
Delivery Order No. 11

Prepared by:

FPM Group
909 Marconi Avenue
Ronkonkoma, NY 11779

February 2000

1.0 INTRODUCTION

This letter Work Plan establishes the field investigation tasks necessary to characterize the extent of the chlorinated plume east of Building 782. FPM Group (FPM) has been contracted by the Air Force Center for Environmental Excellence (AFCEE) to perform additional sampling and investigations at Building 782. The purpose of the additional sampling and investigations is to delineate groundwater contamination identified by FPM during previous investigations at Building 782.

The Building 782 Site features are shown in Figure 1.

Building 782 is located near the north corner of Apron 2, in the southeastern section of former Griffiss Air Force Base. Building 782 was used as a fuel systems maintenance dock prior to being decommissioned.

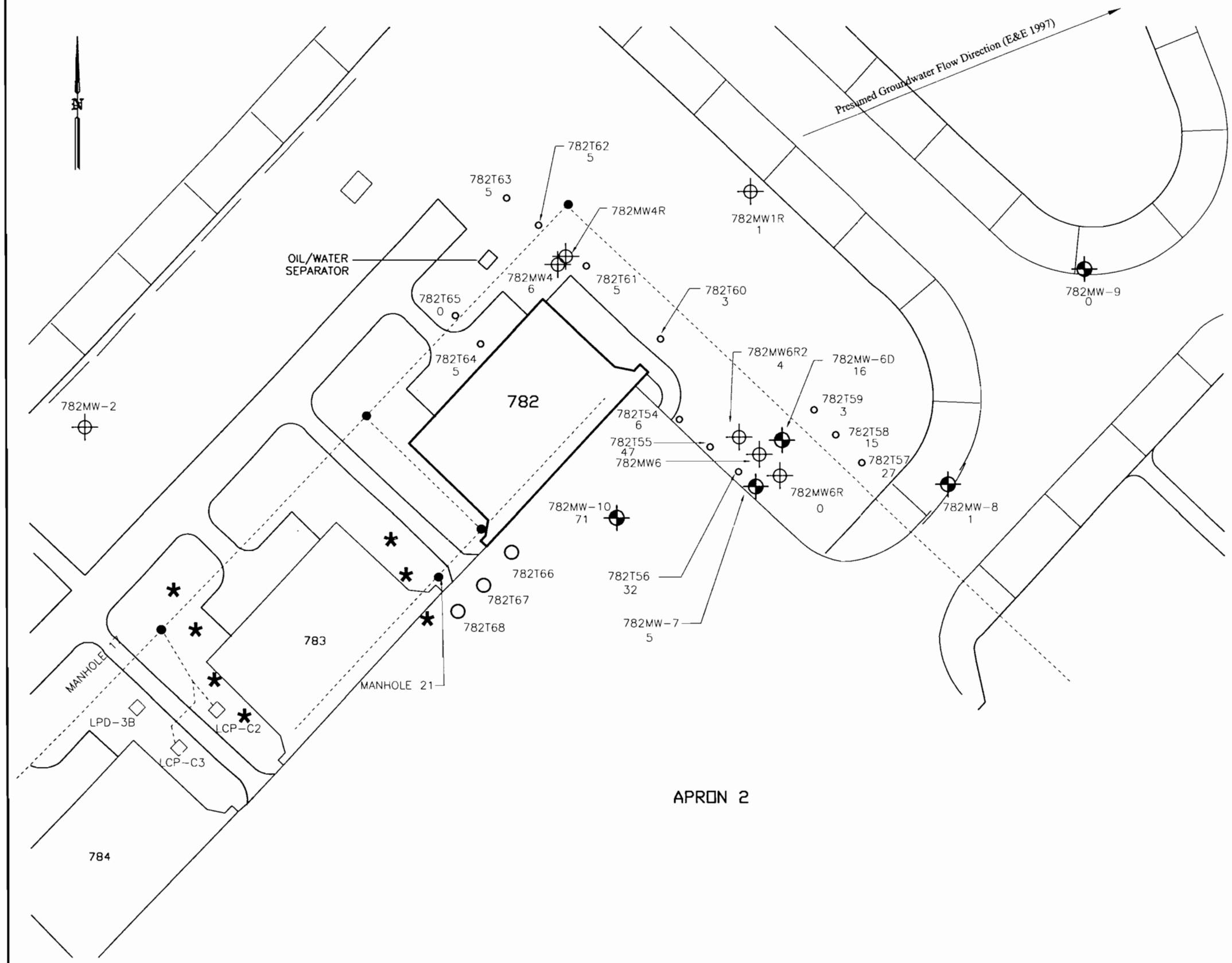
FPM conducted an investigation at the Building 782 Site in August - October 1999. Several groundwater samples collected at the site contained elevated concentrations of chlorinated hydrocarbons. An area of groundwater contamination was identified to the east of Building 782. The northern, eastern, and southern boundaries of the area of contamination have been delineated. The western boundary (upgradient) of the contamination remains undefined.

2.0 DESCRIPTION OF PREVIOUS SAMPLING AND INVESTIGATIONS

Groundwater and soil samples were collected from the north and northwest sides of Buildings 782 and 783 during the Griffiss RI (Law 1996). Four volatiles (benzene, toluene, ethylbenzene, trans-1,3-dichloropropene) were detected in the groundwater samples. The highest concentrations of volatiles detected at concentrations above potential ARARs in the groundwater were reported at Monitoring Well 782MW-2 and several locations in the vicinity of the oil/water separator. No samples were collected on the east or south side of Building 782.

Ecology and Environment Inc. (E&E) also identified areas of contamination north of Building 782 (SI 1998). Cis-1,2-dichloroethene was detected in a sample collected from 782MW-4R at a concentration exceeding screening criteria. A trace concentration of cis-1,2-dichloroethene was detected at 782MW-1R, located downgradient (northeast) of 782MW-4R. Monitoring Wells 782MW-6 and 782MW-6R were installed to the east of Building 782. Monitoring Well 782MW-6 proved to be unsuitable for sampling. A groundwater sample collected at 782MW-6R indicated the presence of xylene and benzene at concentrations exceeded the screening criteria. E&E recommended that additional wells be installed to the east of Building 782 to characterize the extent of groundwater contamination.

In 1996, during the Jet Fuel Hydrant System Assessment and Closure, Low Point Drain (LPD)-3B, and Lateral Control Pits (LCP)s-C2 and C3 were removed (PEER 1997).



LEGEND

- 782MW-9 — NEW MONITORING WELL
- 782MW6R2 — EXISTING MONITORING WELL
- 782T60 / 3 — GROUNDWATER SAMPLE LOCATION AND TOTAL CHLORINATED SOLVENT CONCENTRATION (ppb)
- PROPOSED GEOPROBE LOCATION
- WASH WASTE SYSTEM
- WASH WASTE MANHOLE

0 100 200

SCALE IN FEET

UNITED STATES AIR FORCE
GRIFFISS AIR FORCE BASE
ROME, NEW YORK

FIGURE 1
BUILDING 782
GROUNDWATER SAMPLE LOCATIONS

L: /DRAW/AFCEE/GRIFFISS/BLDG_782\GW_SAMPLE_LOCATIONS.DWG

Endpoint samples collected at LPD-3B and LCP-C3 indicated the presence of residual contamination.

PEER also conducted closure activities on the Wash Waste System in 1996. Manhole 21 and Manhole 17 were removed and the Wash Waste System pipeline was cleaned, capped with hydraulic cement, and closed in place (PEER 1998). Endpoint samples were collected following excavation procedures. The analytical results from a sample collected at Manhole 21 indicated VOC concentrations were detected above STARS Guidance Values.

The purpose of the FPM initial investigation conducted at Building 782 during August – October 1999 was to characterize the extent of groundwater contamination, and confirm the site-specific groundwater flow direction.

Soil borings were installed using Geoprobe® technology. Continuous soil screening was conducted to the groundwater table. Groundwater samples were collected using a Geoprobe® Mill-Slotted Sampler and pumping through dedicated tubing with a peristaltic pump. Groundwater samples were analyzed for EPA Method SW8260B Volatile Organic Compounds (VOCs).

Detected analytes were compared to the New York State Codes, Rules, and Regulations, Title 6, Chapter 10, Part 703, "Water Quality Regulations."

Twenty-one soil borings were installed in the vicinity of Building 782. No evidence of soil contamination was detected in the unsaturated zone during soil screening procedures. Groundwater samples were collected at each of the 21 locations from depth intervals ranging between 18 - 26 ft. below grade surface (bgs). The average depth-to-groundwater recorded at the site was 22 ft. bgs. Following the collection of a groundwater sample at each location, the following monitoring wells were installed: 782MW-6D, 782MW-7, 782MW-8, 782MW-9, and 782MW-10. The locations of all sampling points and monitoring wells are shown in Figure 1.

The laboratory analytical results for groundwater indicated that samples collected from 12 locations contained concentrations of chlorinated hydrocarbons exceeding the corresponding standards. The majority of elevated concentrations of chlorinated hydrocarbons were detected at locations southeast and east of Building 782. The depth interval at which elevated chlorinated hydrocarbon concentrations were detected was 22-25 ft. bgs. A groundwater sample collected at 782MW-10 contained the highest concentration of chlorinated hydrocarbons (71 ppb). FPM also collected groundwater samples at locations 66, 67, and 68 in August 1999 during a separate petroleum spills investigation. The samples were analyzed for STARS Volatiles List 8021 by Ecology and Environment Inc. (E&E). FPM contacted the laboratory regarding the presence of chlorinated hydrocarbons in samples 66, 67, and 68 and the laboratory confirmed the

presence of chlorinated hydrocarbons in those three samples. The analytical results for groundwater are shown in Table 1.

Groundwater flow in the area of Building 782 is characterized as northeast (E&E 1997). Groundwater elevations recorded by FPM in 1999 confirm the estimated northeast groundwater flow direction at Building 782.

The source of contamination is estimated to be southwest of Building 782. A former Wash Waste System extends from Building 782 to Building 786. A sewer system also extends from Building 782 to Building 786. Several manholes associated with the former Wash Waste and sewer systems are located adjacent Building 783 and Building 784. The manholes are up-gradient of 782MW-10, where elevated concentrations of chlorinated hydrocarbons were detected. The manholes adjacent to Buildings 782 and 783 are believed to be the probable source of groundwater contamination east of Building 782.

Table 1
Building 782 Groundwater Analytical Results (1999)
Griffiss AFB

Sample Location		782MW1R	782MW4	782MW6R	782MW6R2	782MW6D
Sample ID	NYSDEC	782M01R20A	782M0422A	782M06R124A	782M06R225A	782M06D25A
Date of Collection	GW Standard	8/9/99	8/9/99	8/9/99	8/9/99	10/14/99
VOCs (ug/L)						
1,1-Dichloroethane	5	0.945	.400 F	U	.210 F	U
1,1-Dichloroethene	5	U	U	U	U	U
1,2,4-Trimethylbenzene	5	1.59	188	.330 F	U	U
1,3,5-Trimethylbenzene	5	.300 F	52.8 DL	U	U	U
Acetone	5	U	U	U	U	U
Benzene	0.7	175	121 DL	.220 F	0.519	U
Bromodichloromethane	5	U	U	U	U	0.309F
Chloroform	7	.240 F	0.423	U	U	9.11
cis-1,2-Dichloroethene	5	U	5.55	U	.670 F	1.5
Ethylbenzene	5	U	9.02	.220 F	U	U
Isopropylbenzene	5	U	9.06	.430 F	U	U
m,p-xylene	5	U	10.2	U	U	U
Naphthalene	10	3.29 B	38.3 B	U	U	U
n-Propylbenzene	5	U	17.8	U	U	U
p-isopropyltoluene	5	U	U	.680 F	U	U
sec-Butylbenzene	5	U	15.3	.590 F	U	U
tert-Butylbenzene	5	U	U	.250 F	U	U
Tetrachloroethene	5	U	U	U	U	U
Toluene	5	U	U	U	U	4.01
trans-1,2-Dichloroethene	5	U	U	U	U	U
Vinyl chloride	2	U	U	U	3.67	5.32
Xylenes, TOTAL	5	U	10.5	U	U	U
Total Chlorinated Hydrocarbons		1.18	5.55	0	3.67	16.2

B - The Analyte was found in an associated blank, as well as in the sample.
D - The numerical value was taken from sample dilution analysis.
F - The analyte was positively identified but the associated numerical value is below the RL.
J - The analyte was positively identified, the quantition is an estimation.
U - Not Detected at or above the method detection limit.
* - Concentration from duplicate sample is reported since it is greater than the parent sample concentration.

Table 1 (Continued)
Building 782 Groundwater Analytical Results (1999)
Griffiss AFB

Sample Location		782MW7	782MW8	782MW9	782MW10	782T54
Sample ID	NYSDEC	782M0726A	782M0818A	782M0924A	782M01022A	782T5422B
Date of Collection	GW Standard	10/15/99	10/15/99	10/15/99	10/15/99	8/9/99
VOCs (ug/L)						
1,1-Dichloroethane	5	U	U	U	U	0.380 D,F
1,1-Dichloroethene	5	U	U	U	1.76J*	U
1,2,4-Trimethylbenzene	5	U	U	U	U	U
1,3,5-Trimethylbenzene	5	U	U	U	U	U
Acetone	5	U	3.79F	12.5	14	U
Benzene	0.7	0.291F	U	U	0.331F	1.76
Bromodichloromethane	5	U	U	U	U	U
Chloroform	7	1.37	0.502	U	18.3	U
cis-1,2-Dichloroethene	5	1.65	U	U	41.5	1.87
Ethylbenzene	5	U	U	U	U	U
Isopropylbenzene	5	U	U	U	U	U
m,p-xylene	5	U	U	U	U	U
Naphthalene	10	U	U	U	U	U
n-Propylbenzene	5	U	U	U	U	U
p-isopropyltoluene	5	U	U	U	U	0.320 F
sec-Butylbenzene	5	U	U	U	U	U
tert-Butylbenzene	5	U	U	U	U	U
Tetrachloroethene	5	U	U	U	U	U
Toluene	5	U	2.57	0.918F	U	0.420 F
trans-1,2-Dichloroethene	5	U	U	U	1.48*	0.580 F
Vinyl chloride	2	2.12	U	U	7.8	5.74
Xylenes, TOTAL	5	U	U	U	U	U
Total Chlorinated Hydrocarbons		5.14	0.5	0	70.8	8.57

B - The Analyte was found in an associated blank, as well as in the sample.
D - The numerical value was taken from sample dilution analysis.
F - The analyte was positively identified but the associated numerical value is below the RL.
J - The analyte was positively identified, the quantition is an estimation.
U - Not Detected at or above the method detection limit.
* - Concentration from duplicate sample is reported since it is greater than the parent sample concentration.

Table 1 (Continued)
Building 782 Groundwater Analytical Results (1999)
Griffiss AFB

Sample Location		782T55	782T56	782T57	782T58	782T59
Sample ID	NYSDEC GW Standards	782T5522B	782T5622B	782T5722B	782T5822B	782T5922B
Date of Collection		8/9/99	8/9/99	8/9/99	8/9/99	8/9/99
VOCs (ug/L)						
1,1-Dichloroethane	5	.290 F	0.33 F	U	.360 F	.240 F
1,1-Dichloroethene	5	U	U	U	U	U
1,2,4-Trimethylbenzene	5	U	U	U	U	U
1,3,5-Trimethylbenzene	5	U	U	U	U	U
Acetone	5	U	U	U	U	U
Benzene	0.7	0.7	0.93	U	.220 F	1.44
Bromodichloromethane	5	U	U	U	U	U
Chloroform	7	U	U	U	U	U
cis-1,2-Dichloroethene	5	23.4	.38 F	1.57	1.36	0.910 F
Ethylbenzene	5	U	U	U	U	U
Isopropylbenzene	5	U	U	U	U	U
m,p-xylene	5	U	U	U	U	U
n-Butylbenzene	5	U	U	U	U	U
n-Propylbenzene	5	U	U	U	U	U
Naphthalene	10	.18 F	.2 F	U	U	U
o-Xylene	5	U	U	U	U	U
sec-Butylbenzene	5	U	U	U	U	U
Tetrachloroethene	5	U	U	U	U	U
Toluene	5	U	U	U	U	U
trans-1,2-Dichloroethene	5	0.88	0.68	U	0.320 F	0.360 F
Vinyl chloride	2	22.4	31.4	25.4	14	3.11
Xylenes, TOTAL	5	U	U	U	U	U
Total Chlorinated Hydrocarbons		46.97	32.79	26.97	16.04	4.62

B - The Analyte was found in an associated blank, as well as in the sample.
D - The numerical value was taken from sample dilution analysis.
F - The analyte was positively identified but the associated numerical value is below the RL.
J - The analyte was positively identified, the quantition is an estimation.
U - Not Detected at or above the method detection limit.
* - Concentration from duplicate sample is reported since it is greater than the parent sample concentration.

Table 1 (Continued)
Building 782 Groundwater Analytical Results (1999)
Griffiss AFB

Sample Location		782T60	782T61	782T62	782T63	782T64	782T65
Sample ID	NYSDEC GW Standards	782T6022B	782T6122B	782T6222B	782T6322B	782T6422B	782T6522B
Date of Collection		8/9/99	8/9/99	8/9/99	8/9/99	8/9/99	8/9/99
VOCs (ug/L)							
1,1-Dichloroethane	5	.200 F	.290 F	1.19	2.34	.360 F	U
1,1-Dichloroethene	5	U	U	U	U	U	U
1,2,4-Trimethylbenzene	5	3.15	6.15	5.53	U	0.310 F	U
1,3,5-Trimethylbenzene	5	0.971	1.67	1.06	U	U	U
Acetone	5	U	U	239E	U	U	125E
Benzene	0.7	25.9	85.0 J	228 J	48.1	15.8	71.7 J
Bromodichloromethane	5	U	U	U	U	U	U
Chloroform	7	U	U	1.23	U	U	0.627
cis-1,2-Dichloroethene	5	3.3	5.21	3.67	2.56	5.2	1.00 F
Ethylbenzene	5	U	1.9	U	U	U	U
Isopropylbenzene	5	.37 F	3.52	0.450 F	U	U	U
m,p-Xylene	5	U	1.57	0.980 F	U	U	1.00 F
n-Butylbenzene	5	U	2.96	U	U	U	U
n-Propylbenzene	5	U	4.83	0.250 F	U	U	U
Naphthalene	10	0.85	21.2 B	1.44 B	0.23FB	U	.547 B
o-Xylene	5	U	U	U	U	.370 F, B	U
sec-Butylbenzene	5	0.36 F	3	.370 F	U	U	U
Tetrachloroethene	5	U	U	0.300 F	U	U	U
Toluene	5	U	U	U	U	U	U
trans-1,2-Dichloroethene	5	U	U	U	U	U	U
Vinyl chloride	2	U	U	U	U	U	U
Xylenes, TOTAL	5	U	1.60 F	1.00 F	U	U	1.00 F
Total Chlorinated Hydrocarbons		3.5	5.5	6.39	4.9	5.56	1.627

B - The Analyte was found in an associated blank, as well as in the sample.
D - The numerical value was taken from sample dilution analysis.
F - The analyte was positively identified but the associated numerical value is below the RL.
J - The analyte was positively identified, the quantition is an estimation.
U - Not Detected at or above the method detection limit.
* - Concentration from duplicate sample is reported since it is greater than the parent sample concentration.

3.0 DESCRIPTION OF ADDITIONAL SAMPLING AND INVESTIGATIONS

The purpose of additional sampling at Building 782 is to delineate groundwater contamination up-gradient (southwest) of the Building 782 site and determine the source of contamination. The proposed sampling locations are shown in Figure 1.

Three soil borings will be installed in a linear manner perpendicular to the estimated groundwater flow and upgradient (southwest) of the potential source area (Manhole 21).

If the analytic results from the three initial samples indicate no exceedances for chlorinated hydrocarbons, the potential source is most likely the Manhole 21 area, and the western boundary of groundwater contamination will be defined.

If chlorinated hydrocarbons are detected in exceedance of NYSDEC Guidance Values at the three initial sampling locations, four additional sampling points will be installed in the same manner between Buildings 783 and 784. These additional sampling points will be installed downgradient of Manhole 17 and LCP-C2 in an effort to identify the source of contamination. Additional sampling will be based on the analytical results obtained.

Soil borings will be installed using Geoprobe® technology. Continuous soil sampling will be conducted to the groundwater table. If any soil contamination is detected in the unsaturated zone through field screening (PID, olfactory, staining, etc.) a soil sample will be collected using a Geoprobe Macro-Core® Sampler at the depth interval where the highest concentration of contamination is detected.

Groundwater samples will be collected using a four-foot Geoprobe® Mill-Slotted Sampler, and pumping through dedicated tubing with a peristaltic pump. Two groundwater samples will be collected at each location. For the collection of the first sample, the four-foot Mill-Slotted Sampler should be placed at a depth where the top of the Sampler coincides with the top of the water table. For the collection of the second sample, the top of the Mill-Slotted Sampler should be placed approximately four feet below the water table.

All specified sampling locations will be tested for VOCs using EPA Method SW8260B. These analytes are suggested based on previous sampling events. Soil sample collection is not planned but will be performed if soil contamination is identified during field screening activities.

Detected analytes will be compared to the New York State Codes, Rules, and Regulations, Title 6, Chapter 10, Part 703, "Water Quality Regulations."

The data quality will be driven by the Quality Assurance/Quality Control requirements specified in the AFCEE Quality Assurance Project Plan (QAPP) Version 3.0 and AFCEE approved variances. Please refer to the AFCEE QAPP, Version 3.0 for details regarding the quality assurance program.

Subsurface utilities will be identified through the acquisition of "Work Clearance Requests" (dig permits) that will be coordinated through the Air Force Base Closure Administration.

4.0 REPORTING REQUIREMENTS

The investigation data will be compiled into a Site Investigation Report. Based on the data collected, the report will recommend appropriate remediation and monitoring techniques.

5.0 FIELD ACTIVITIES

A summary of the sampling analyses and field activities are provided below in Tables 2 and 3, respectively.

Table 2
Building 782 Site
Groundwater Sampling

Analyte/ EPA Method Numbers	Matrix	No. of Samples	No. of Equip. Blanks[1]	No. of Ambient Blanks[1]	No. of Trip Blanks[1]	No. of Field Dups./ Reps.[1]	No. of MS and MSD[1]	Total No. of Samples
VOCs – SW8260B	**Water**	7 (1 from each boring)	1	1	1	1	1	12

[1] *At least one MS/MSD and two field duplicates will be collected per SDG (20 field samples); one equipment blank per day and one ambient blank per day; one trip blank per cooler containing VOCs. All quality assurance/quality control blanks will be coordinated with other long-term monitoring sites.*

* *Use of EPA Method 8260 for STARS VOC analysis is acceptable because the method utilizes gas Chromatography and Mass Spectroscopy to confirm the concentrations of the target hydrocarbons.*

Table 3
Building 782 Site Field Activity Summary

Activity	Rationale	Analytical Parameters
Confirmation of groundwater flow direction.	The groundwater flow direction and elevation will be confirmed using the existing monitoring wells.	For all Groundwater: Volatiles List 8260B. Field parameters for all groundwater: pH, conductivity, DO, turbidity, temp., and oxidation/reduction potential.
Installation of initial three sampling points near Building 783.	Three temporary wells will be installed approximately 50 feet apart crossgradient of the previously detected contamination at Building 782, as shown in Figure 1. The data collected will characterize the groundwater upgradient of Manhole 21.	No soil sampling is planned at this time; however, soil cuttings from drilling operations will be screened with a PID and inspected for staining and odors. Soil samples for laboratory analysis will be collected if contamination is identified.
Installation of four additional sampling points southwest of Building 783.	Four additional temporary wells will be installed approximately 50 feet apart southwest of Building 783 and upgradient of the previously detected contamination at Building 782, as shown in Figure 1. The data collected will characterize the groundwater downgradient of Manhole 17 and LCP-C2.	

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

JG

John P. Cahill
Commissioner

April 17, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

Attention: Mr. Mark Rabe

Re: Spill 9810713
Bldg. 782 GAM Lane
Rome (C), Oneida County

Dear Mr. Rabe:

Upon review of documents submitted and discussion during our meeting on April 12, 2000; it is apparent that there is a major environmental impact at this site due to a suspected leaking jet fuel supply line.

The report documents a product plume 675 feet long by 450 feet wide with free product levels in some wells exceeding 3 feet.

This situation is of major concern to this department and **must be addressed immediately if not sooner.**

As your consultants have pretty well defined the scope of the impact, they must now develop a remediation plan to mitigate this plume.

Please have your consultant submit a written work plan to me by **June 30, 2000,** addressing this situation.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Joseph Homburger
Mr. Jonathan Greco
NFC:ds

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SEA PARTE DE LA CUENTA!

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

APR [illegible]

MEMORANDUM FOR SEE DISTRIBUTION LIST

FROM: AFBCA/DA- Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Draft Work Plan, Petroleum Spill Sites Investigation - Phase II

1. The attached document is provided for your review and comment and will be used to implement investigative work to be performed by Fanning, Phillips and Molnar under contract number F41624-95-D-8003-0014 at Griffiss AFB. Request that written comments be provided not later than 1 May 2000.

2. Questions that you may have pertaining to the information provided may be directed to Mark Rabe of my environmental staff at (315) 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachments
Draft Work Plan,
Petroleum Spill Sites Investigation - Phase II

DISTRIBUTION

Mr. Jonathan Greco
New York State Department of
Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
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SUMMARY OF DATA REVIEW/WORKING MEETING
Former Griffiss Air Force Base, Rome, New York
April 12, 2000 @ 1:30 – 4:00PM

PARTICIPANTS:

Name	Organization	Phone Number
Douglas Pocze	USEPA	212-637-4432
Jonathan Greco	NYSDEC	518-457-3976
Michael McDermott	AFBCA	315-330-2275
Catherine Jerrard	AFBCA	315-330-2275
Mike Wojnas	AFBCA	315-330-2275
Robert Pender	USACE	816-983-3849
Thomas Ferraro	E & E	716-684-8060
Gene Florentino	E & E	716-684-8060
Robert Meyers	E & E	716-684-8060

Subject: A working meeting was held with the regulatory agencies to provide an update of ongoing field investigations: 1) ESI Investigation, 2) SI Investigation, 3) Bldg. 775/Landfill 6 Investigation.

ESI Investigation

R. Meyers provided the regulatory agencies a site by site status. To date, the project is on schedule and there have been no notable deviations from the workplan. No significant evidence of contamination has been noted at the sites. Below is a table of sites discussed with summary notes:

Site	Name	Notes
AOI 07	Southeast Skyline Housing/Former Firing Range	Work progressing in accordance with the Workplan
AOI 102	Lindane Spill Site	Work progressing in accordance with the Workplan
AOI 431	Bivouac Dump Area	Work progressing in accordance with the Workplan
AOI 469	Bldg. 112 – Transformer Oil Spill	Preliminary surface sample data has been received from the laboratory. Two surface sample locations contained PCBs at a concentration of > 1 ppm. The maximum was 7 ppm. These two locations will be the locations for the continuous sampling. AFBCA provided Douglas Pocze, USEPA, a site tour.
OTH 305	Bldg. 305 – Paint Spry Both	Sediment and standing water samples collected. Dye testing showed the sump drains to Three-Mile Creek.
OTH 5485-2	Trash Scatter Dump (E. of WSA)	Debris removal complete. Soil samples collected. No evidence of hazardous substances was observed.
EOD Range 2	Area 18 – "Rocket Range"	Work progressing in accordance with the Workplan
PCI Site 20	Trash Scatter Dump (Mohawk River)	Debris removal complete. Soil samples collected. No evidence of hazardous substances were observed.
OTH-661	Trash Scatter Dump (Barge Canal)	This site has been removed from this investigation. Photos were shown to the regulatory agencies. Site walks have shown no indication of hazardous substances warranting investigation.

SI Investigation

Two sites make up this investigation. These sites are 1) AOC 09, 2) On-Base Groundwater AOC. Maps of these sites showing sample concentrations were reviewed with the regulatory agencies. AOC 09 data shows elevated levels of TCE, DCE, VC, and Chlorobenzene. Data from the On-Base Groundwater AOC shows elevated levels of TCE and Tetrachloroethene (PCE).

AOC 09

Groundwater

AFBCA discussed that the data from AOC 09 is potentially showing evidence of reductive dechlorinization (natural attenuation). T. Ferraro presented a draft cross sectional drawing of the area. AFBCA showed that the site appears to be bounded on three sides and acknowledged that the site extends across Perimeter Road. AFBCA is currently developing plans to collect additional groundwater samples across Perimeter Road. The regulatory agencies recommended that vertical profile groundwater samples be collected at the geoprobe locations across Perimeter Road.

Trenching

R. Meyers discussed what was observed during trenching operations at this site to locate the boundaries of the suspected landfill. R. Meyers reported that this did not appear to be a landfill in the classical sense. Sporadic debris such as concrete rubble was unearthed, however, items such as household waste was not discovered. R. Meyers estimated that the area contains less than 1% debris. R. Meyers also noted that the field monitoring instruments did not detect elevated levels of contamination. J. Greco stated that this does not appear to meet the definition of a landfill and as such would not need to be remediated as a landfill.

On-Base Groundwater AOC

Data from this site was reviewed. AFBCA stated that the site appears to be delineated. However, the regulatory agencies stated that 2 – 3 additional vertical profile groundwater samples should be collected around building 817. AFBCA stated they would take this under advisement.

Bldg. 775/Landfill 6 Investigation

G. Florentino provided the regulatory agencies a status of the B775/LF6 field program. Two sites make up this investigation. These sites are 1) the Building 775 TCE Contamination AOC, and 2) the Landfill 6 AOC. A map of these sites showing hydropunch data and existing well data was presented to the regulatory agencies. Both sites show elevated levels of TCE and DCE, and VC was detected at LF6.

To date, the project is on schedule and there have been no notable deviations from the workplan. However, the areal extent and level of contamination at both sites is larger and higher, respectively, than expected. Therefore, additional in-field sampling is being performed to determine the lateral and vertical extent of the contamination. To date, a determination of whether the contamination at each site represents the same source area(s), or are considered separate plumes has not been made.

J G

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

APR 0 7 2000

MEMORANDUM FOR Mr. Douglas Pocze
USEPA Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

Mr. Sal Ervolina, Director/
Mr. Jonathan Greco, Project Manager
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010

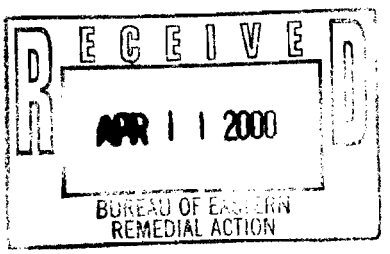
FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome NY 13441-4105

SUBJECT: Notice of Intent to Lease Griffiss Air Force Base Buildings 150 and 15

1. Applications have been received from the Griffiss Local Development Corporation (GLDC) for use of the subject buildings. The proposed usage for Building 150 is for assembly of truck bodies and attachment to truck chassis. Building 15 will be used as a spray paint facility. In addition, space for outdoor storage of truck bodies is required. The GLDC tenant has also requested temporary use of Building 100. Information concerning the lease of Building 100 will be forwarded to you in the near future.

2. AFBCA has begun preparing FOSLs (Findings of Suitability to Lease) for Buildings 150 and 15. Working draft FOSLs will be submitted for your review. Once the working drafts are submitted, please respond with your comments within two weeks.

3. If you have any questions prior to submittal of the working draft FOSLs, please contact Cathy Jerrard at 315-330-2275.



MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

cc: Ms. Lynn Hancsak, AFBCA/DA - EV

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

APR 0 7 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
Environmental Section
153 Brooks Road
Griffiss Air Force Base, NY 13441-4105

Re: *Final Field Sampling Plan for the Landfill 6 and Building 775 Areas of Concern Groundwater Study, Former Griffiss Air Force Base, December, 1999*

Dear Mr. McDermott:

I have reviewed the *Final Field Sampling Plan for the Landfill 6 and Building 775 Areas of Concern Groundwater Study, Former Griffiss Air Force Base,* dated December 1999. Based upon this report, I have provided the following below. Please note, I am aware that you have begun this work; however, my comments should not affect your investigation work (with the exception of General Comment #1 which has already been discussed with Mike Wojnas of your staff), and can be addressed within the final report.

I. GENERAL COMMENTS

1. The stated objectives of the FSP are to define the vertical and lateral extent of the TCE plume, determine whether the existing plumes are separate or interconnected, and to obtain sufficient information to propose the proper remedy. To these ends, it would seem prudent to perform a synoptic sampling event of all existing monitoring wells. Therefore, existing monitoring wells LF6MW-1, LF6VMW-3, TMC-USGS-3 should be considered for resampling.

2. The stated criteria for placement of background wells are MCLs. However, no MCLs exist for glycols and petroleum hydrocarbons. Criteria should be specified for placement of background screening wells for these contaminants.

3. From the field sampling plan, it is unclear how the proposed field activities will distinguish the Landfill 6 and Building 775 TCE plumes. Supporting text should be added to better explain the way this goal will be achieved, particularly since several wells in Table 2-4 are indicated for this purpose.

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II. SPECIFIC COMMENTS

1. **Table 2-2, page 2-4**. The table indicates the estimated well screen length for wells 775VMW-18 and 775VMW-19 is 5 feet. Section 3.3.5.2, however, indicates that if no contamination is present, a 10-foot screen length will be used. The table should be changed to indicate a screen interval of 90-100 feet BGS.

2. **Figure 2.2, page 2-17**. Figure 2.2 does not appear to accurately show the Landfill 6 area, indicated by the shaded gray area, on the cross-section line on Figure 2-1. Extend Landfill 6 on Figure 2-2 beyond the LF6VMW-6 monitoring well.

3. **Section 3.3.5.6, page 3-16**. The draft/final remedial investigation for Landfill 6 identifies the location of jurisdictional wetlands around Landfill 6. Well LF6VMW-12 (and possibly other proposed monitoring wells) appears to be located in jurisdictional wetlands. Special measures during construction, cleanup, and sampling to minimize impacts to the wetlands should be identified.

Should you have any questions, please contact me at (212) 637- 4432.

Sincerely,

Douglas M. Pocze
Project Manager

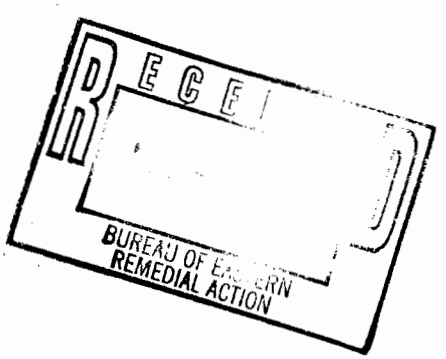
cc: J. Greco, NYSDEC
M. Wojnas, AFBCA/OL-X

JG, Site Numbers needed for filing

CH INC

CDM-01-99-054

DATE: April 7, 2000



TO: Elsa Payne, PIADC

FROM: Lori Zezza, ENTECH, Inc.

SUBJECT: April 5, 2000 PIADC CERCLA Meeting Summary

Attendees: Elsa Payne (PIADC), Carlos Santoyo (PIADC), Jeff Tuttle (ENTECH), Lori Zezza (ENTECH), Jon Greco (NYSDEC), Vito Minei (SCDHS), Sy Robbins (SCDHS), James Pim (SCDHS), via telephone: Pete Jovanovich (USDA-ARS), Fred Crowner (AIMTECH), Charles Callis (CDM).

Purpose:

- Overview of CERCLA field program.
- Discuss proposed Risk Screening criteria.
- Discuss risk management decision criteria for determining site disposition.
- Discuss IBE activities (removal, transportation, disposal) and preliminary analytical results.

8:30 AM: Arrive at PIADC

8:45 AM: SCDHS attendees take a quick island-wide tour

9:30 AM: Call in phone participants, introductions, welcome

CERCLA Field Program:

J. Tuttle explained ENTECH's GPS system used to define exact sampling locations according to aerial photography for the CERCLA field program. Over 1,000 samples (environmental plus QA/AC) were taken during the field program at 34 areas of concern (WMAs and AOPCs) and 11 Army batteries on the island. ENTECH will generate a CERCLA Project Report (with risk screening data) for NYSDEC and SCDHS, and an HRS scoring package for the Federal EPA.

For Investigation By Excavation (IBE) activities, disposal has already been approved by Safety-Kleen's Pinewood, SC landfill and the South Carolina Department of Health and Environmental Control (DHEC).

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Several issues remain, however, with NYSDEC regarding transportation and disposal options for the lab debris wastestream (Attachment 1).

ENTECH is looking at a start date of mid-June for IBE activities, and having an evaluation of the rest of the sites and HRS scoring information by late June.

J. Pim mentioned concern for two areas: one where "buried" drums were found and one where acetylene(?) cylinders were found. E. Payne mentioned that they were not actually acetylene, but oxygen tanks or old fire extinguishers. These items were discovered during access clearing activities at WMA 7/8. It was explained that any waste oil drums with contents were "overpacked" and removed. Stained soil was also containerized.

J. Tuttle described ENTECH's background study of PIADC which was completed during the first few weeks of the PIADC CERCLA field program. State and County regulators agreed with the approach that sample results would first be screened against TAGM values, then statistically-derived background values (especially for metals).

Risk Screening/Risk Management Decision Criteria:
J. Tuttle mentioned we all need to be in agreement (NYSDEC, SCDHS, PIADC, and ENTECH) on what risk screening benchmarks will be used to screen all media sample results.

J. Greco mentioned soil results (surface soil and subsurface soil) should be screened against TAGM values, then depending on other factors, professional judgement should be implemented. The numbers J. Greco is seeing so far (IBE site-specific preliminary sample results) are not alarming to him (isolated occurrences, sporadic exceedences of PAHs, metals, etc.). J. Greco advised us not to use RBCs. He also mentioned that State Fish and Wildlife staff will be reviewing the report.

J. Tuttle requested NYSDEC and SCDHS input on appropriate screening levels for groundwater samples. Both State and County regulators mentioned that for Superfund sites, drinking water standards are used. These standards include 10 NYCRR 703.5, Part 5 (which specifies a generic limit of 50 ppb for individual organics, and 100 ppb for total organics).

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J. Tuttle asked about the Army battery storm drainage sludge samples and what to screen the results against. All were in agreement to screen against TAGM values, and to use county sludge guidelines as a secondary benchmark.

J. Greco's tip: Avoid averaging contaminant values. Present maximum results and avoid screening against averages. We all agreed that averaging at the risk screening stage is only appropriate to discuss in the supporting "risk management" narrative.

IBE Activities:

J. Tuttle mentioned the original intent was to dig up lab debris at one end and completely excavate an entire site until no further materials were found; then stockpile the materials at WMA 9. No transportation and/or disposal was planned, until the material was determined to be NY State regulated medical waste (RMW; because of "sharps"). As a result of the RMW determination, PIADC wants to be pro-active in eliminating this material. There were four (4) sites originally characterized as "IBE sites," however through test pit and trenching activities during the CERCLA field program, an additional six (6) sites were added to the list for a total of ten (10) IBE sites.

J. Pim mentioned he wanted to agree with PIADC on the ten sites where removal will occur. However, later on in the meeting, S. Robbins mentioned he had no objections to proceeding with removal action at the ten sites currently identified, as lab debris was found at all ten sites. NYSDEC and SCDHS will review the maps and data tables provided, which include preliminary benchmark exceedence data.

S. Robbins asked if any surface geophysical data had been collected or would be necessary before the start of the project. J. Tuttle and E. Payne mentioned that this would not be necessary because of the detail provided by historical aerial photography.

J. Greco raised the concern about uncovering ash. E. Payne mentioned that ash normally goes out as bottom ash, TCLP tests are run to see if it is hazardous, and that results have never indicated a hazardous ash. Therefore, any ash encountered during IBE should be non-hazardous. J. Tuttle mentioned that if ash is encountered during IBE activities, it could be stockpiled and sampled.

Logistics of IBE activities: screen plant will be set up at WMA 9, screens used will be ½" by ½". ENTECH is proposing to remove source material, collect confirmatory samples within the "pits," and redeposit soil

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where it was removed from. Regulatory interest was expressed in also composite sampling soil piles from the screen plant.

J. Pim's biggest concern is with the incidental finding of containers with chemicals/liquids still in them. J. Tuttle described PIADC's intent to re-autoclave and ship containers with contents for bulk load incineration. J. Pim mentioned that during handling and sifting, cautionary measures should be implemented to avoid spills and the breaching of intact containers. He also mentioned that when containers were identified they should be removed. J. Pim also suggested we consult with Brookhaven National Laboratory, as they have recently performed a similar project. J. Pim did not have a contact name. However, E. Payne mentioned that based on the findings of the test pits completed during the CERCLA field program, she was confident that IBE would not encounter many containers with liquids. Any "unknowns" will be handled separately from the rest of the disposal materials (e.g., re-autoclaved and bulk incinerated).

The County asked if we were testing for Perchlorates (e.g., munitions propellent). Perchlorate was not a target compound during the CERCLA field program, however, annual monitoring well sampling includes Perchlorate analysis. None have ever been found.

The potential for encountering unexploded ordinance (from historical Army operations) during IBE was discussed. J. Greco suggested that Army UXO specialists be contacted to monitor waste removal activities at WMA 13 (an Army era disposal site).

J. Tuttle mentioned that during the field program bags of asbestos were found, and asked what the procedure would be if more asbestos was encountered during IBE. J. Greco suggested that it be removed to an off-site 360 landfill. He said that we did not have to necessarily remove it, but it might be easier than consolidating it at a single disposal location. There is a possibility that WMA 2, where known asbestos landfilling occurred, may need to be capped with a "low-permeability" soils cap. Appropriate regulations will need to be reviewed, going back to the date of the last disposal. J. Pim recommended that if and when asbestos is found during IBE activities, it be consolidated and removed.

J. Greco asked about low-level radiation. J. Tuttle explained that we used a rad meter during the CERCLA field program, that ash is periodically tested (no findings), and the well fields were tested for rad parameters during the field program.

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J. Tuttle mentioned that we biased sampling during test pit operations and that we can bias sampling locations during IBE activities; based on visual observations and PID and rad meter readings. A field chemist will be made available, if needed, for "hazcatting" unknowns encountered during IBE activities.

J. Greco questioned the potential characteristics of the soil that will pass through the screen plant and will be replaced at it's site of origin...is it solid waste? If so, we may face "regulatory" issues. J. Tuttle proposed taking soil pile samples so we have documentation of what was put back. J. Greco agreed that this was a good idea.

J. Tuttle proposed that a follow-on project to the IBE activities would be to remove the non-hazardous construction and demolition debris at WMA 9. Wood, concrete, and metal will be recycled to the maximum extent possible, via a tub grinder, concrete crusher, and barge transportation (to a recylcer), respectively. C. Santoyo indicated that completion of this phase of work is still dependent upon securing "operations budget" funding.

1:30 to 2:30 PM: Tour of select IBE sites: WMA 1, WMA 4, WMA 7/8 (surface debris only; for stockpiling at WMA 9), WMA 9, WMA 10/11 and AOPC 11.

Action Items:

- S. Robbins requested a copy of Draft Pump Test Report.
- ENTECH/Safety-Kleen/PIADC to update Work Plan to include Dr. Alan Woodard and Katie Murphy's issues/comments, re-autoclaving issues, more detail on the screen plant process, and the "unknowns" potential, etc. Enclosed is the summary of the PIADC CERCLA IBE discussions during the March 30, 2000, PIADC RCRA meeting (Attachment 1).
- NYSDEC and SCDHS meeting participants will review IBE site data tables and maps, and the proposed technical specifications for excavation, screen plant processing, transportation, and disposal of NY State RMW.
- PIADC to contact US Army regarding oversight of WMA 13 (Army era disposal site) during IBE activities.
- ENTECH to incorporate benchmark criteria in PIADC CERCLA data assessment in accordance with regulator input.

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Enclosure (1)

cc: Alida Karas, EPA R. 2
Helen Shannon, EPA R. 2
Marsden Chen, NYSDEC
Jonathan Greco, NYSDEC
James Pim, SCDHS
Vito Minei, SCDHS
Sy Robbins, SCDHS
Fred Crowner, AIMTECH
Jeff Tuttle, ENTECH
Rick McKenna, ENTECH
Barry Baker, ENTECH
Carlos Santoyo, PIADC
Elsa Payne, PIADC
Charles Callis, CDM
Pete Jovanovich, USDA-ARS

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Attachment 1

DATE: March 31, 2000

TO: Elsa Payne, PIADC

FROM: Barry Baker, ENTECH, Inc.

SUBJECT: PIADC CERCLA IBE Discussions from the March 30, 2000 PIADC RCRA Meeting

Attendees: Richard Baldwin (NYSDEC), Dr. Alan Woodard (NYSDEC), Katie Murphy (NYSDEC), Elsa Payne (PIADC), Steve Baker (ENTECH), Barry Baker (ENTECH).

Prior to "sit-down" discussions a brief site visit was made to WMA 4/AOPC 11. All parties inspected the "typical" waste profile that was visible from a partially excavated trench at AOPC 11. This trench gave a good indication of a "typical" waste profile and included sharps, lab glassware, autoclaved melted plastic containers, and general trash such as scrap metal.

Dr. Woodard first raised issues concerning the classification of the RMW material for transportation through NY.

Important points raised/discussed:

- Dr. Woodard would like to see evidence that Safety-Kleen or their designated waste hauler, e.g., Wills Trucking, Inc. (listed in section 2.0 of Mod. #2), have the required state permit, Part 364, and the associated ID Nos. that allow them to haul waste through New York state. This is required because Dr. Woodard indicated that even though PIADC "claims" the RMW has been treated, once it is pulled out of the ground NY State classify it as untreated RMW. Once the waste leaves NY state, the untreated RMW placarding could be removed, although other states may have their own requirements.

- Moving the waste through NY requires a Federal DOT bulk container exemption. To move the waste through NY without the sharps (incl. broken glass) in a separate compartment within the bulk container, requires a state issued emergency exemption permit. Dr. Woodard explained that

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he would have to review the details further, although he did imply that these permits should not be difficult to acquire.

- Dr. Woodard suggested we further investigate the South Carolina landfill permits because depending on how the waste arrives in SC, i.e., as untreated RMW or treated RMW, there may be problems with SC accepting the waste. It was explained to him that a letter from PIADC detailing the treatment of the waste had been supplied to SC and they had in turn "signed off" in agreement to accept the waste.

- Dr. Woodard suggested we take a look at the NY state updated medical waste tracking form available from their Web-Site.

- Katie Murphy briefly viewed the TAGM maps of WMA 1 and AOPC 11. She did not seem overly concerned with the levels of detected results, other than some pesticide hits. She also agreed that these hits are isolated occurrences, and therefore probably not an issue.

- Katie specifically requested greater detail about the screening process. She would like to know more about how the gross waste would be separated from the RMW material, the different types of screens to be used, and would like to see a schematic of the operation.

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New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road, Albany, New York 12233-1010
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

April 28, 2000

Mr. Lorenzo Thantu
U.S. Environmental Protection Agency
290 Broadway, 20th Floor
New York, New York 10007

Re: Continued Remedial Investigation (RI) Report

Dear Mr. Thantu:

I have reviewed the referenced document and the most recent submission of the consultants responses to our earlier comments (Dames & Moore, Feb. 28, 2000) and find that the RI contains sufficient information to proceed to the feasibility study (FS). This statement is, of course, at the exclusion of the continuing stream and ponds sediment investigation.

Please be sure that the commitments made in the consultants responses (i.e., the investigation and remediation of each of the significant subsurface features discussed in the Feb. 28, 2000 letter) are included in the appropriate remedial alternatives of the forth-coming FS.

If you would like to discuss this matter more fully, please contact me at (518) 457-0549.

Sincerely,

Jonathan Greco
Project Manager

cc. S. Ervolina
M. Chen
P. Carella

GEORGE E. PATAKI
GOVERNOR

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK, 12233-1010

JOHN P. CAHILL
COMMISSIONER

APR 28 2000

Ms. Jeanne M. Fox
Regional Administrator
United States Environmental Protection Agency
Region 2
290 Broadway
New York, NY 10007-1866

Dear Ms. Fox:

Consistent with Governor Pataki's 1995 delegation of authority to request nomination of sites to the NPL to the Commissioner of the New York State Department of Environmental Conservation, I am requesting that the Hudson Technologies, Inc. site (HTI) in Hillburn, Rockland County, be nominated to the NPL.

The USEPA, Region 2 Pre-Remedial Branch is in support of this nomination and has initiated an HRS package on this site.

If you or your staff would like to discuss this site further, please contact Mr. Michael J. O'Toole, Jr. at (518) 457-5861.

Sincerely,

John P. Cahill

cc: Carol M. Browner
bcc: Commissioner Cahill
M. O'Toole (2)
T. Quinn
E. Barcomb
A. Carlson
S. Ervolina
R. Pergadia, R/3
J. Swartwout
R. Marino
W. Bayer

WP/mh

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518) 485-8404
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

MEMORANDUM

TO: Commissioner Cahill
THRU: James Austin, Acting Deputy Commissioner
FROM: Michael J. O'Toole, Jr., Director, Division of Environmental Remediation
SUBJECT: Nomination of Hudson Technologies, Inc. in Hillburn (Rockland Co.) to the NPL
DATE: APR 28

USEPA Region II staff has requested New York State's concurrence with the nomination to the National Priorities List (NPL) of the Hudson Technologies, Inc.(HTI) site in Hillburn, Rockland County. The DER, along with the Rockland County Department of Health, initiated USEPA involvement on this site. A letter is attached for your signature formally requesting nomination to the NPL, along with a site fact sheet and NPL justification.

In summary, Hudson Technologies, Inc. experienced a spill of Freon which impacted the groundwater at the site. The facility is located near a portion of the United Water Company well field which has been impacted by the Freon contamination. The Suffern Village well field is down-gradient from the site, but has not been impacted yet. HTI has conducted some remedial work at their facility and is in negotiation with the United Water Company to provide for some groundwater treatment. Preliminary cost estimates to provide treatment are in excess of one million dollars. If HTI is unable to fulfill its remedial obligations at the site, there is no assurance, other than that provided by the Federal Superfund Program through the NPL, that resources will be available to mitigate exposures and remove the contamination from the environment. Freon does not meet the New York State definition of a hazardous waste and, therefore, cannot be addressed through the State's Superfund Program. For these reasons, NYSDEC supports the nomination of this site to the NPL.

Attachments

bcc: J. Austin
M. O'Toole (2)
T. Quinn
E. Barcomb
A. Carlson
~~S. Ervolina~~
R. Pergadia, R/3
J. Marcogliese, R/3
J. Swartwout
R. Marino
W. Bayer

SITE SUMMARY

The Hudson Technologies Inc. (HTI) site is an active freon recycling facility located on 25 Torne Valley Road in Hillburn, Rockland County, New York. Activities conducted by HTI at the facility include purifying spent refrigerant and returning it to customers. HTI began operation at the site in June 1994. The site property is approximately 3.01 acres in size and consists of a 20,500 square foot building. The company has moved the majority of it's operations to a new location in Congers, NY.

In June 1995, United Water of New York (UWNY) reported to the Rockland County Department of Health (RCDH) that concentrations of trichlorofluoromethane, also known as Freon 11 or R-11, had been detected in two of its public supply wells (Well Nos. 84 and 85), which are part of UWNY's Ramapo Valley wellfield. The HTI site is located approximately 500 feet from Well No 85. The facility was found to have floor drains, a dry well and a septic system. The NYSDEC evaluated the sampling data and operational information about the site and determined that the freon contamination does not constitute disposal of hazardous wastes as defined by the ECL and State Regulations. The Division of Water became the NYSDEC lead agency for management of the site.

In 1996, HTI contracted a consultant to conduct a Subsurface Investigation in order to evaluate the impact resulting from the former operation of the septic tank/leachfield system, as well as the dry well. During this investigation, a total of seven monitoring wells were installed and sampled. Freon 11 was detected in six of the wells sampled at concentrations ranging from to 18.4 to 294 ppb. The highest concentration was detected in the deep monitoring well located adjacent to the facility's septic tank.

On April 1, 1999, a failed connection hose to one of HTI's outdoor storage tanks resulted in a spill of approximately 7,797 pounds of Freon 11 to the ground surface. HTI immediately commenced excavation of soil impacted by the spill. Over a 10 day period, approximately 400 to 500 cubic yards of contaminated soil were excavated from the area. Analytical results from soil samples, collected from the excavation on April 2 and April 7, 1999, indicated the presence of Freon 11at concentrations up to 870 parts per billion. A final round of soil samples collected on April 12, 1999 indicated that Freon 11 was not present above the detection level of 26 ppb. Samples collected from the monitoring wells after the spill found Freon at levels up to 210,000 ppb.

In July of 1999, at the request of the NYSDEC Division of Water, HTI installed a pump and treat system utilizing a stripping tower in an effort to remediate the groundwater problem. Analytical tests on samples from the influent of this system were at levels around 6,000 ppb freon, the effluent levels are below 2 ppb. The effluent is discharged upgradient of the facility to circulate the decontaminated water back into the system.

Since the initial reports of ground water contamination in June 1995, analytical data indicates that the Freon 11 plume has migrated at low levels (20 ppb) to UWNY Well Nos. 99 and 100, which are located south and further downgradient of the HTI site and UWNY Well Nos. 84 and 85.

The USEPA, at the request of the Rockland County DoH and NYSEC, is in the process of preparing an Hazardous Ranking Score (HRS) for this site. This step precedes NPL nomination.

Program Justification for Nomination of
Hudson Technologies, Inc. to the
National Priorities List

- Analytical information gathered from HTI and United Water of NY indicates the site has contaminated the Ramapo-Mahwah sole source aquifer and effected production wells serving 15% of the population of Rockland County.

- A groundwater plume has extended approximately ½ mile, affecting four wells of the United Water of NY Water District - Wells 84, 85, 99 and 100. Well 84 is approximately 500 feet from the HTI site.

- A 1996 investigation by HTI's consultant detected Freon 11 in six of seven monitoring wells at concentrations ranging from 18.4 to 294 ppb. The highest concentration was detected in the deep monitoring well located adjacent to the facility's septic tank.

- On April 1, 1999, a failed connection hose on one of HTI's outdoor storage tanks resulted in a spill of 7,797 pounds of Freon 11 to the ground surface. Samples collected from the monitoring wells after the spill found Freon at levels up to 200,000 ppb.

- HTI has conducted some investigation of the groundwater contamination at their facility and is operating a pump and treat system to address the contamination at the source.

- HTI is in negotiation with the United Water Company of New York to provide some groundwater treatment at the well field. Preliminary cost estimates for the treatment system are in excess of one million dollars.

- There is a second well field, the Suffern Village Wellfield, downgradient of the United Water Company wells. Suffern Village wells have not been impacted with freon yet, but the municipality has been alerted and is monitoring for freon.

- The USEPA Pre-Remedial Branch out of the NYC Region 2 office has visited the site with Rockland County DOH staff and has initiated work on an HRS package.

- NPL nomination of this site has the additional support of the Regional NYSDEC office and the Bureau of Hazardous Site Control.

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

John P. Cahill
Commissioner

October 20, 1999

Mr. David Brouwer
USACOE, New York
190 State Highway 18
Suite 202
East Brunswick, N.J. 08816

Re: Floor Drain Removal at Bldg. 615

Dear Mr. Brouwer:

I have received your contractor's *Closure Report* for the referenced work (received here on October 18, 1999) and have several comments and questions:

1. The report claims the New York State action level for mercury in soils to be 0.2 mg/l. Please explain the origin of this value. The last information I have indicates that the Army was to remove soils in excess of 0.1 mg/kg in accordance to NYSDEC TAGM # 4046, which would require an analysis of "total" mercury (i.e., mg/kg) and not leachable mercury (i.e., mg/l). Please refer to the Army's correspondence of September 24, 1997 for verification.

2. The correct guidance value for mercury contaminated soil is .1 mg/kg, with a high-end regional background of .2 mg/kg (please see TECHNICAL AND ADMINISTRATIVE GUIDANCE MEMORANDUM # 4046, DETERMINATION OF SOIL CLEANUP OBJECTIVES AND CLEANUP LEVELS). Is it possible that the .2 mg/kg background value was misconstrued as meaning .2 mg/l in the sample extract? Or is it possible that the RCRA characteristic hazardous waste limit for mercury of .2 mg/l in sample extract was mistakenly used as a soil cleanup level? In either event, it appears that the value and methodology used is inconsistent with the NYSDEC's standard practices and the adequacy of the removal may be in need of further confirmation.

3. The analytical result for sample FTRA15SS 0012B is incorrectly stated as *non detect* in the text of the report. Please refer to the data package attached to the submission which shows a value of 55 ug/l to have been present. Please correct.

4. Reference is made to duplicate samples having been taken. Please send me the data from that initiative.

5. The discussion at the end of the narrative is unclear; e.g., *"Upon removal of the cap it was discovered that the pipe was only a piece of what appeared to be corrugated metal stove pipe that extended through the floor slab..."* This is particularly confusing in light of later text which states: *"Earlier observations confirmed that a floor drain is not present in building 614."* It appears that the corrugated pipe is the remnants of a former drywell, yet no sampling of the soils beneath was conducted. Please explain.

6. The drawing provided in the report needs to be enlarged and better detailed. Also, the report appears to be missing some of the figures, as the only drawing received is labeled "Figure 3". Are there other figures?

If you have any questions regarding this matter, please call me at (518) 457-0549.

Sincerely,

Jonathan Greco

Jonathan Greco
Bureau of Eastern Remedial Action
Division of Environmental Remediation

cc. S. Ervolina
M. Chen
R. Gardineer (Reg. 2)
T. Lang (Reg. 2)

File GAFB

John P. Cahill
Commissioner

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action, Room 242
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-4349 • **FAX:** (518) 457-4198
Website: www.dec.state.ny.us

February 3, 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Rd.
Griffiss AFB, N.Y. 13441-4105

Mr. Michael Sorel
AFBCA/DA Plattsburgh
22 U.S. Oval Suite 2200
Plattsburgh, N. Y. 12903

Gentlemen: Subject: Unexploded Ordnance Investigations

The NYSDEC had requested you to include UXO investigations as part of your Superfund activities chiefly to determine the status of chemicals that could have been released from buried ordnance. Our request met varying degrees of success regarding GAFB or PAFB submitting work or sampling and analytical plans. There were instances in which significant field work was completed and NYSDEC became aware of the situation only through its visit to the facility. Other actions included a submission of an UXO investigation report, and upon NYSDEC's commenting, further work was planned by you.

I want to bring to your attention the need for at least a soil sampling program to investigate if organic and inorganic materials were released in areas where residual ordnance is found. Similar to the program at the Seneca Army Depot, I am requesting that a soil sample should be collected where a cache or other significant ordnance explosive waste is or was found. Laboratory analysis should be done by the USEPA Method 8330, typically testing for 2,4,6 - trinitrotoluene, HMX, RDX , tertryl and any other item of significance.

Please contact Jon Greco, Jim Quinn or me if you have questions.

Sincerely
Marsden Chen
Marsden Chen

Unexploded Ordnance Investigations contd.....

cc: Jon Greco
Jim Quinn
File
Daybook

File

John P. Cahill
Commissioner

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action, Room 242
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-4349 • **FAX:** (518) 457-4198
Website: www.dec.state.ny.us

February 4, 2000

Mr. Carlos M. Santoyo
United States Department of Agriculture
North Atlantic Area
Plum Island Animal Disease Center
P.O. Box 848
Greenport, New York. 11944-0848

Dear Mr. Santoyo,

Subject: Proposed Database Structure and Risk Screening Standards Applicable to CERCLA Program Decision-Making at the Plum Island Animal Disease Center (PIADC)

The risk based criteria (RBC) proposals outlined in your January 13, 2000 letter are not acceptable under the current New York State Department of Environmental Conservation (NYSDEC) Superfund program. NYSDEC rejects the notion that RBC should be the factor in determining future actions at a Superfund site. Instead, NYSDEC requires that Superfund remedial or other actions should meet the New York State Standards, Criteria and Guidelines (SCG's), a.k.a. Applicable, Relevant and Appropriate and Requirements (ARAR's and To Be Considered (TBC)).

Standards and Criteria (or ARAR's) are the various New York State Laws, their enacting regulations or other applicable promulgated regulations, some of which you have identified in you letter; Guidelines (or TBC) are found in technical guidance usually of long standing and application in the State's (and federal's) Superfund program, e.g., NYSDEC, Division of Environmental Remediation's Technical and Administrative Guidance Memorandum (TAGM) HWR-94-4046, Determination of Soil Cleanup Objectives and Cleanup Levels.

Should the environmental investigation uncover contaminant levels in excess of minima established in the SCG's, depending on the degree of contravention, NYSDEC may require the investigating entity or facility owner to further assess the contamination through a risk assessment. Clean up of contaminants to appropriate levels may be done as a function of the provisions of the SCG's or risk assessment. Under the foregoing description of the State's Superfund hierarchy of SCG's and use of risk assessments, application of RBC's to the Plum Island clean up is unacceptable.

It might be worthwhile if we could discuss this item at greater length, and the proposed visit by Suffolk County and NYSDEC's staffs to your facility would provide an opportunity.

Please contact Jon Greco or me at 518-457-3976 if you have any questions.

Sincerely

Marsden Chen

Marsden Chen

cc: Ray Cowen - NYSDEC R1
Walter Parish - NYSDEC R1
Bob Wing - USEPA R2
Alida Karas - USEPA R2
Helen Shannon - USEPA R2
Jim Pim - SCDHS
Jon Greco - NYSDEC

File

John P. Cahill
Commissioner

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action, Room 242
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-4349 • **FAX:** (518) 457-4198
Website: www.dec.state.ny.us

February 7, 2000

Mr. George Malosh
U. S. Department of Energy
Brookhaven National Laboratory
Building 464
P. O. Box 5000
Upton New York. 11973

Dear Mr. Malosh

Subject: BNL's BGRR Decommissioning
Independent Verification Contractor

I wish to document discussions between the U.S. Department of Energy (USDOE), the U. S. Environmental Protection Agency (USEPA) and the New York State Departments of Health and Environmental Conservation (NYSDOH and NYSDEC) regarding the need for an independent verification contractor after the BGRR remedial actions have been completed.

During a telephone conference call on February 1, 2000 the USDOE indicated that it had planned to share split samples with the USEPA and NYSDEC to confirm that the clean up levels have been attained. The New York State Department of Environmental Conservation will share split samples only to the extent that they provide spot checks that clean up is proceeding satisfactorily; verification of the entire decommissioning and clean up of the BGRR must be done by other means.

NYSDOH and NYSDEC informed the USDOE that the standard practice in New York is to require a reactor decommissioning project to obtain the services of an independent Verification Contractor (IVC), who will confirm that decommissioning and clean up of the facility and surrounding environment has met the conditions agreed to by the agencies mentioned above. Please note that an IVC does not repeat the final survey completed by the decommissioning entity, but makes independent determinations on the locations, methods and systems for its confirmation study. NYSDEC's position was transmitted to the USDOE in an autumn 1999 comment letter regarding the scope of work for these

activities (NYSDEC has not yet received a final work plan, although significant field work has been accomplished).

It is important that this issue be resolved prior to backfilling remedied areas to avoid the need for additional excavation. If you have any questions, please contact Jim Lister or me at 518-457-3976.

Sincerely

Marsden Chen

Marsden Chen

cc: A. Carlson/J.Crua/A. Salame-Alfie - NYSDOH
R. Wing/M. Logan - USEPA
B. Youngberg/R. Rommel - NYSDEC
J. Pim - SCDHS
J. Goodenough/S. Pulsford - USDOE, BNL
G. Penny - USDOE, BNL
J. Lister - NYSDEC

Chem

GEORGE E. PATAKI
GOVERNOR

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-1010

JOHN P. CAHILL
COMMISSIONER

FEB 8 2000

Mr. Albert F. Lowas, Jr.
Director
AFBCA/LD
Department of the Air Force
1700 North Moore St., Suite 2300
Arlington, VA 22209-2802

Dear Mr. Lowas:

I am responding on behalf of Governor Pataki to your proposal regarding the early transfer of property, parcel F-2, at the Former Griffiss Air Force Base, Rome, New York. The State of New York is committed to the redevelopment of closed military bases, and recognizes the importance of your proposal to the economic vitality of the local communities.

I am pleased to report that the United States Environmental Protection Agency (USEPA) has completed its review of the Covenant Deferral Request and its supporting documentation. Upon completion of its review, the USEPA submitted a letter entitled "Findings of the Regional Administrator, EPA" to this Department in late December 1999, for our review. As you are aware, it is this document that must ultimately be concurred with by the Governor of New York and the Regional Administrator in order for the requested transfer to take place.

The "Findings of the Regional Administrator, EPA" has been reviewed by Department staff, and a recommendation is now being forwarded to the Governor. As the Governor's Office is aware of the importance of this transfer, I have every confidence that a final decision will be rendered shortly.

Sincerely,

John P. Cahill

NEW YORK STATE CENSUS 2000
BE PART OF THE COUNT
SEA PARTE DE LA CUENTA!

bcc: M. O'Toole
T. Quinn
S. Ervolina
M. Chen
J. Greco

CCU: 200000179

00179
Due 1/19

O'Toole thru Austin
JPC

RECEIVED BY COMMISSIONER N.Y.S.D.E.C.
JAN -6 PM 3:51

IMPORTANT DO NOT DETACH TRACKSHEET FROM ORIGINAL DOCUMENT(S)

TRACKSHEET

GOVERNOR'S CORRESPONDENCE OFFICE
Executive Chamber - State Capitol
Albany, New York 12224
(518) 474-3612 / Fax (518) 474-3767

State of New York
Executive Chamber

Mr. Albert F. Lowas, Jr.
Director
Department of the Air Force
USAF-Pentagon
1947 USAF DASAA, Room 4B1064
Washington, DC 20330

Corr Num: 1198253A
Date of Corr: 09/20/99
Issue Code: 20140 Base /Facilities Closures
Subject: **seeks approval of property transfer**

DELIVER TO	DATE	INSTRUCTIONS	ROUTED BY
ENCON	01/03/2000	Per Jenifer Fitzpatrick- they never received.	Tricia Curley

Routing History:

01/03/2000 01:24 PM (Routed By --> Tricia Curley) (Routed to --> ENCON) Per Jenifer Fitzpatrick- they never received.

11/23/99 10:22 AM (Routed By --> Helen Racicot) (Routed to --> ENCON) Per ESDC this was sent to DEC for ack. Mike O'Toole is the contact person.

09/30/99 02:08 PM (CC'd By --> Tara Scully) (CC'd to --> Kimberly Lamay) F.Y.I. -- NO ACTION NECESSARY

09/22/99 02:51 PM (CC'd By --> Gco Entry1) (CC'd to --> William Howard,Brad Race,Lynette Stark,Tricia Curley)

09/22/99 02:51 PM (Routed By --> Gco Entry1) (Routed to --> ESDC/Catalfamo) The attached correspondence has not been acknowledged. Please send letter from Commissioner on behalf of the Governor within 10 days. **FORWARD COPY OF FINAL RESPONSE TO GCO FOR SCANNING** -- Please respond to Cindy Connors--Dave-The Governor has not seen this. Can you please make sure that it gets to the appropriate person to review immediately. Thanks Tricia

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

SEP 2 0 1999

AFBCA/DR
1700 North Moore Street, Suite 2300
Arlington, VA 22209-2802

The Honorable George Pataki
Governor, State of New York
Executive Chamber
State Capitol
Albany, NY 12224

Dear Governor Pataki

We respectfully request your review and approval of the attached package for Parcel F-2 developed under the provisions § 9620(h)(3)(C) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), for the "early transfer" of real property at the former Griffiss Air Force Base (AFB), New York, a Federal facility listed on the National Priorities List (NPL).

Our staff engaged in a cooperative effort with the staffs of the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Environmental Protection Agency - Region II (EPA) in using this authority to develop the required documents to support the Oneida County Industrial Development Agency (OCIDA) request for the early transfer of approximately ninety-five (95) acres of land it is used purchasing as part of the Economic Development Conveyance (EDC) on the former Griffiss AFB. Under the provisions of 42 U.S.C. § 9620(h)(3)(C)(i), the EPA Regional Administrator, with your concurrence, may defer the requirement of subparagraph § 9620(h)(3)(A)(ii)(I) which requires the Federal deed for a land transfer to include the covenant that all remedial action necessary to protect human health and the environment with respect to hazardous substances remaining on the property has been taken before the date of such transfer. The deferral allows the Air Force to deed this property before it completes all remedial action. The Air Force shall execute and deliver the required warranty in an appropriate document when all response action necessary to protect human health and the environment with respect to any hazardous substance remaining on the property on the date of transfer has been taken.

Author: "Jennifer Fitzpatrick" <jafitzpa@gw.dec.state.ny.us> at Internet-Gateway
Date: 12/30/99 1:09 PM
Normal

TO: Tricia Curley at EC1, <matt.turnell@chamber.state.ny.us> at Internet-Gateway
Subject: Overdues
---------- Message Contents

The following correspondence was never received. Can you please forward to us. Thanks.

Lowas, Albert 1198253A

COMMISSIONER'S CORRESPONDENCE CONTROL SYSTEM
APPROVAL SHEET FOR USE WITH EMAIL SYSTEM

CONTROL NUMBER: 200000179
CORRESPONDENT'S NAME: Lowas, Albert
DUE DATE: 1/19/00
FILE NAME: 200000179.wpd
SUBJECT: Need Approval for Property Transfer

PREPARED BY: M.Chen/J. Greco DATE: 1/19/00

REGION/DIVISION/LOCATION: Central Office/Env'l Remediation/7010-Rm. 242

APPROVED BY:	INITIAL / DATE:
S. Ervolina	SE - 1/18/00
T. Quinn	TQ - 1/21/00
M. O'Toole, Jr.	MJOT - 1/21/00
D. Desnoyers	DD - 1/24/00

ADDITIONAL APPROVALS NEEDED:	INITIAL / DATE	CHECK FOR A BC
J. Austin	JA 1/26	
A. Smith	as 1-27	
G. Donohue	GD	
L. Frick	LMF	

ARE SUPPORTING DOCUMENTS BEING FORWARDED? No
(If yes, please specify what)

SUGGESTED ADDITIONAL (NON-STANDARD) BCC'S:

TRANSMITTED BY: Karen K. Quinn DATE: 1/25/00 @ 11:30 a.m.

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

APR 0 6 2000

MEMORANDUM FOR SEE DISTRIBUTION LIST

FROM: AFBCA/DA - Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Interim Remedial Action Report - Site T-9, Area of Concern SS-25

1. The attached document is provided for your review and comment and was developed as a result of recent work performed at Griffiss AFB by PEER Consultants, P.C., under Contract Number F41624-94-D-8067, Delivery Order 006. Request that written comments be provided not later than 01 May 2000.

2. Questions that you may have pertaining to the information provided may be directed to Mark Rabe of my environmental staff at (315) 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment
Interim Remedial Action Report -
Site T-9, Area of Concern SS-25

DISTRIBUTION

Mr. Jonathan Greco
New York State Department of
Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010 (2 copies)

Mr. Douglas Pocze
USEPA - Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866 (2 copies)

New York State Department of
Environmental Conservation
207 Genesee Street
Utica, NY 13501-2885
Attn: Mr. Neal Carrier (1 copy)

AFBCA/DA - Griffiss
153 Brooks Road
Rome, NY 13441-4105
Attn: Mark Rabe (4 copies)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

APR 0 3 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
Environmental Section
153 Brooks Road
Griffiss Air Force Base, NY 13441-4105

Re: *Draft Closeout Report for Interim Remedial Action at the Electrical Power Substation*

Dear Mr. McDermott:

I have reviewed the *Draft Closeout Report for Interim Remedial Action at the Electrical Power Substation,* and based upon this report, I have provided the following comments:

I. GENERAL COMMENTS

1. The closure report describes the interim remedial actions taken at the Electrical Substation (EPS) Area of Concern (AOC) to address surface and subsurface soil contamination that was identified during the Remedial Investigation (RI) of this AOC. The cleanup target levels for total PCBs were <25 ppm for the area inside the EPS, and <1 ppm for surface soil and <10 ppm PCBs for subsurface soil (> 10 inches below ground surface; bgs) outside the fenced EPS area. These cleanup levels meet the Toxic Substance Control Act (TSCA) cleanup levels for surface and subsurface soils (CFR §761.125).

2. Previous discussions have indicated that storm water drainage from the EPS could be a continuing source of contamination into Three Mile Creek. However, the closeout report did not address this concern. Please note, without sufficient information indicating that Three Mile Creek will not be impacted from the EPS, closeout of the EPS is impossible.

II. SPECIFIC COMMENTS

3. **Section 1.1, page 1-2, 3rd ¶**. Three Mile Creek flows into the New York State Barge Canal, not into Six Mile Creek. Also, revise and include the information that the west and east branches of Three Mile Creek are located to the south and east of the EPS area, respectively.

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4. **Section 1.6, page 1-4**. The report includes photo documentation for two out of four excavation areas only. All available photos for the excavation areas should be provided.

5. **Section 2.2, page 2-2, 1st ¶**. The lateral extent of excavation at the EPS AOC, as defined in the USACE Scope of Work was based on contamination documented in the RI report. One localized area of PCB contamination was detected during the RI to the east of the EPS, near the east branch of Three Mile Creek. This isolated area was not included in the EPS remedial action, but this report should discuss this PCB hot spot and indicate whether and how the Air Force plans to address this particular area.

6. **Section 2.2, page 2-2, 3rd ¶**. Based on the PCB levels in the confirmation samples, additional hand-excavation beyond the initial excavation limits was performed. The report should identify these areas, the depths of additional excavation and whether additional confirmation samples were collected. Areas of additional excavation and additional confirmation samples (if any) should be identified in Figure 2.

7. **Section 2.3, page 2-3¶**. Revise the first sentence in this section to include the goal of verifying the attainment of the subsurface soil cleanup criterion.

8. **Section 2.3, page 2-3, 3rd ¶**. The collection depth of confirmation samples is given as 0 to 6 inches below ground surface for sidewall samples, and 0-6 inches below the excavation floor for excavation bottom samples. However, some of the sampling depths in the table in Figure 2 and several sampling logs in Appendix A do not reflect these standard depths. Review and reconcile as necessary.

9. **Section 2.4, page 2-3¶**. The information in the sampling log indicates that the disposal sampling did not follow the procedures in TSCA (§761, Subpart R). This should be indicated in the text.

10. **Section 2.4, page 2-4, 1st ¶**. Revise the listing of analytical methods to indicate that PCBs were analyzed using USEPA method 8082. The Pesticide/PCBs analysis method number in Table 3.2-1, Appendix E, should also revised.

11. **Section 2.4, page 2-4¶**. The analytical data for the non-hazardous stockpile materials should be included as a reference (Table 3.2-2, Appendix E).

12. **Section 2.5, page 2-4¶**. The text maintains that clean and acceptable backfill and topsoil as defined in the USACE Scope of Work (SOW) were obtained from a local borrow source, and that a representative sample had been collected as part of Delivery Order 003 (the Coal Yard Storage Area Intermediate Remedial Action). Backfill and topsoil samples from the borrow source were analyzed in September 1997, during the restoration of the Coal Yard Storage Area. As indicated by the last EPS sampling logs, however, backfilling at the EPS area was not completed before mid-August 1998, almost a year

after the sample from the borrow source was analyzed. The text should better explain how this sample result establishes the representativeness and suitability of recently obtained borrow materials from this source.

13. **Figure 2.** In the PCBs sampling results table, the units *mg/kg* should be replaced with *µg/kg*. The sampling depths for several sidewall samples in this table deviate from the standard sampling depths for sidewall samples of 0 to 6 inches below ground surface, as well as sampling log information (Appendix A). Several sample identifiers for locations depicted as sidewall samples in the map are missing the sidewall-sample identifier suffix in the table. Following the standard sampling depth for confirmation samples from the excavation bottom, all excavation bottom samples should be listed for an interval, not a fixed depth. Review these discrepancies and correct as appropriate.

Should you have any questions, please contact me at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Project Manager

cc: J. Greco, NYSDEC
C. Jerrard, AFBCA/OL-X

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

MEMORANDUM FOR: SEE ATTACHED DISTRIBUTION LIST

FROM: Michael F. McDermott
BRAC Environmental Coordinator
Co-Chairman, Restoration Advisory Board
AFBCA/DA-Griffiss
153 BROOKS ROAD
ROME, NEW YORK 13441-4105

SUBJECT: Minutes: Restoration Advisory Board Meeting – 16 November 1999

1. Attached are minutes of the Restoration Advisory Board Meeting of 16 November 1999.

2. If you have nay questions or concerns, please feel free to contact me at 330-2275.

MICHAEL F. MC DERMOTT
BRAC Environmental Coordinator
RAB Co-Chairman

ATTACHMENTS: 1. Distribution List
2. List of Acronyms
3. Presentation Packet

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MINUTES OF THE MEETING
OF THE
RESTORATION ADVISORY BOARD

1. Date/Time: 16 November 99 - 5:00 PM
2. Location: Base Chapel - Griffiss Air Force Base, Rome, NY
3. Attendees: Michael McDermott - RAB Co-Chairman, BRAC Environmental Coordinator, AFBCA/DA-Griffiss
   Mark Reynolds - RAB Co-Chairman, Director of Planning & Development, Griffiss Local Development Corporation
   Patricia Anken, Oneida County Legislator
   Anna Lemaire, AFBCA/DA-Griffiss
   Catherine Jerrard, AFBCA/DA-Griffiss
   Michael Wojnas, AFBCA/DA-Griffiss
   Mark Rabe, AFBCA/DA-Griffiss
   Carl Sahre, AFBCA/DA-Griffiss
   Barbara Moore, USACE, Kansas City
   Douglas Pocze, USEPA
   Jonathan Greco, NYSDEC
   Randy Vaas, NYSDEC, Region 6, Watertown
   John F. Buczek, Supervisor, Town of Floyd
   Malcolm Didio, Town of Floyd
   Joe Wojnas, USACE, NY District
   J. C. McCrory, Corps of Engineers – Fort Drum
   Rich Hamlin, Metcalf & Eddy, Inc
   Rich Stapleton, Metcalf & Eddy, Inc
   Mike Blackmon, PEER Consultants
   Yvonne Walseman, UNITEC
   Chris Yzaguirre, UNITEC
   David Forse, Fanning, Phillips & Molnar
   Barbara Pratt, Fanning, Phillips & Molnar
   Angela Petty, Third Ward Councilor, Rome, NY
   Donna Pekola, City of Rome
   Roger C. Sabia, Rome Fire Department
   Carmen S. Malagisi, Rome Floyd Resident's Assoc., Rome, NY
   Freda Melkum, Rome, NY
   Joe Sallustio, Rome, NY
   Pat Corbett, Observer Dispatch
   J. Ocuto, Ocuto Construction, Rome, NY

4. Mr. McDermott, BRAC Environmental Coordinator for the Griffiss Air Force Base Conversion Agency (AFBCA), opened the meeting at 5:00 PM. He welcomed the group and noted that everyone should have received an informational packet at the sign-in table that could be used to follow the presentation. Mr. McDermott introduced members of the AFBCA staff to the audience.

5. Mr. McDermott noted that the Supplemental Environmental Impact Statement on the Airfield is available at the office of the Air Force Base Conversion Agency, and anyone wishing to obtain a copy should contact that office. He then introduced Mark Rabe, Environmental Engineer.

6. Mr. Rabe began his presentation with a discussion of the progress made-to-date on the remediation project at the Small Arms Range (SAR) site, a former Air Force Firing Range. To date approximately 12,000 tons of lead contaminated soil has been removed, a berm has been rebuilt and the area has been hydroseeded. The parcel is now ready for transfer. Mr. Rabe displayed an aerial photograph of the SAR, pointing out the area which had been hydro-seeded. The photo also showed the SAR's proximity to Hardfill 49A, located to the east of the SAR. Remedial work on Hardfill 49A is scheduled to begin in the Spring of 2000. Hardfill 49A was used primarily as a dumping site for construction and demolition debris.

7. Mr. Rabe next presented the current status of projects associated with the Airfield Environmental Program, which includes the Barge Canal Facility, the Fire Protection Training Area and the Base Gas Station.

(a) The Barge Canal Facility, located on Route 49, was used by the Air Force as a fuel storage facility. At that site, three (3) Aboveground Storage Tanks (ASTs) have been cleaned and closed in place. The underground pipelines between the ASTs have been cleaned and two Underground Storage Tanks (USTs) have been removed. Mr. Rabe displayed an aerial photo of the Barge Canal Facility site. The soil and groundwater contamination at the site is mainly from the fuel tank drainage systems. The drainage system was used to draw off water caused by condensation when the tanks were only partially full. No contamination goes beyond the boundaries of the Air Force property.

(b) Phase II remediation at the Fire Protection Training Area is scheduled for the Spring of 2000. This will involve remediation of subsurface contamination; surface contamination was remediated during Phase I, which occurred last summer prior to the Woodstock Festival and was reviewed at the May, 1999 RAB meeting.

(c) The Base Gas station, Buiiding 43, will remain operational using ASTs. It will be used for fueling vehicles used by the base caretakers. The USTs at this site are scheduled to be removed in the Spring of 2000.

8. Mr. Rabe reviewed the current status of the Petroleum Program.

(a) At the Pumphouse #5 site, a total of 34,000 tons of contaminated soil has been removed and sent to the Apron #1 Landfarm. Mr. Rabe displayed an aerial photo showing the Apron #1 Landfarm and its proximity to Pumphouse #5, and pointed out the biocells. After the soil has been remediated, it will be used as clean fill at sites where contaminated soil is being removed.

(b) To date, a total of 36,000 tons of soil has been remediated at the Landfarm sites; 27,000 tons at the Apron #1 site, 5,000 tons at the Alert Apron and 4,000 tons at the Weapons Storage Area. An estimated $750,000 in savings has been realized (the difference between the cost of landfarming the contaminated soil as opposed to trucking the soil to an offsite disposal facility and purchasing clean fill to replace it.)

9. Following his presentation, Mr. Rabe asked if there were any questions or comments.

Jon Greco of the New York State Department of Environment Conservation (NYSDEC) noted that it appears that the area being remediated at Pumphouse #5 is the same area that was dug up before. Mr. Rabe replied that this is correct, but that during this operation the area being dug up is deeper and wider than during the previous project.

Mr. Malagisi asked to what group or agency the Small Arms Range would be transferred? Mr. Rabe replied that it is still going to the Department of the Interior to be used by the Bureau of Indian Affairs.

Mr. Reynolds of the GLDC asked a question concerning the contamination in the area of the Barge Canal Facility. He noted that there have been some stories in the local newspapers about contamination on non-federal property near that site. Mr. Rabe replied that they know that the contamination is not jet fuel. The NYSDEC Spills Program is investigating the site now.

Mr. Reynolds also asked a question regarding the time schedule for the landfarming project. Mr. Rabe replied that it takes 14 to 18 months to clean a biocell; therefore since the landfarming project is now approximately 1/3 complete, it will be finished in two and one-half to three years.

There being no more questions, Mr. Rabe turned the program over to Michael Wojnas, Environmental Engineer.

10. Mr. Wojnas reviewed the status of current and proposed projects at several Areas of Concern (AOCs).

(a) Three Mile Creek and Six Mile Creek: a Feasibility Study is being conducted for these sites. During the week of November 8th, some additional off-base sampling was done at the Three Mile Creek pond, north of Route 49.

The final Feasibility Study for these sites is scheduled to be completed by April of 2000. Proposed Plans (PPs) are scheduled to be issued for public review by August, 2000 and public meetings on the PPs will be held in September, 2000. A Record of Decision (ROD) for Three Mile and Six Mile Creeks is expected to be issued in November, 2000.

(b) Final Records of Decision have been issued for five sites. A No Further Action ROD was issued for the Suspected Fire Training Area. No Further Action with Land Use Restrictions RODs have been issued for the Building 219 Drywell, Building 214 and the Fire Demonstration Area. A ROD for No Further Action with Institutional Controls (Land and Groundwater Use Restrictions) was issued for the Building 301 Drywell. These RODs were signed by both NYSDEC and the USEPA in September, 1999, and a Public Notice on these RODs will be issued in December of 1999.

11. Mr. Wojnas next reviewed the plans for remediation of various Landfills on the former Base. Landfill #1 is the largest landfill on the base. A Proposed Plan was issued on July 16, 1999, which proposed a presumptive remedy of a Membrane Cap and Groundwater/Leachate Treatment system. A public comment period ran from July 20 through August 19; a public meeting was held on August 10th to explain the PP and receive public comment and questions. The Draft Record of Decision was issued to NYSDEC and the USEPA on October 21. The Record of Decision is scheduled to be implemented in the Spring of 2000, and it is expected that remedial action at Landfill #1 will be completed by the Fall, 2001.

Mr. Wojnas displayed several maps showing the Landfill #1 AOC. This is a 19.6 Acre site that was operated primarily as a trench-and-cover landfill from 1960 to 1973. Mr. Wojnas pointed out the location of the groundwater leachate system which is being installed to treat the leachate before it enters Six Mile Creek, and also showed the location of the Landfill in relation to other areas of the Base.

12. Mr. Wojnas then discussed the current status of Landfills 2/3, 4, 5, 6, and 7. Draft Proposed Plans for all Landfills are currently under review. He displayed a map showing the location of each of these landfills.

Proposed Plans for Landfills #2/3, #4, #5 and #7 are expected to be issued to the public in December of 1999, with public meetings to be held in January, 2000, and Records of Decision to be issued in March, 2000.

The Proposed Plan for Landfill #6 is expected to be issued to the public in May of 2000, a public meeting will be held in June, 2000, and the Record of Decision is expected to be issued in July, 2000. Mr. Wojnas displayed a map of the Base showing the location of all Landfills. He noted that Landfill #4 , the smallest landfill on Base, and was that site of the Interim Remedial Action (IRA) that was completed in the summer of 1998. That project, which included the removal of a small amount of radioactive material, was the subject of a presentation at a prior RAB meeting.

Mr. Wojnas next discussed the Interim Remedial Actions at four AOCs. These AOCs are: Building 20 (Locomotive Roundhouse), Building 112 (PCB Spills), Building 222 (Battery Acid Disposal Pit), and Building 255 (Drywells). These IRAs were completed late in the summer of 1999. A Closure Report is currently being drafted and Proposed Plans will be issued by March of 2000 based on regulatory acceptance of the IRA Closure Report. A public comment period will be held in April, 2000 and a ROD will be issued in June, 2000. Mr. Wojnas displayed a map showing the location of these AOC sites

13. Mr. Wojnas called for questions or comments from the group. A member of the audience asked a question regarding the policy on the awarding of contracts for landfill remediation work. Will these be competitively bid?? Mr. Wojnas replied that Landfill #1 work would be awarded based on a performance specification approved by the US Army Corps of Engineers. Landfill #1 was not easy to design because of complexities involved at the site, including wetlands and proximity to Six Mile Creek. Landfills #2/3 and #7 will be put out to bid. No decision on the method of award has been made on Landfills #5 and #6.

Mark Reynolds asked for an explanation of the presumptive remedies for the Landfills. Mr. Wojnas explained that a two-foot soil cap will be placed on Landfills #2/3, #5, and #7. Landfill #1 will have a Membrane Cap and Groundwater/Leachate Treatment System installed, as discussed earlier in the meeting. On Landfill #6 it has been decided to go with a full RCRA cap, a two-foot soil cap and impermeable membrane. At Landfill #4, where the IRA was performed two years ago, there is a slight question on the groundwater and which may require monitoring. All of these remedial actions still have a long way to go through the CERCLA approval process.

14. There being no further questions, Mr. Wojnas introduced Cathy Jerrard, Environmental Engineer.

15. Mrs. Jerrard reviewed the current status of planned transfers of various parcels of property within the former Griffiss Air Force Base. She displayed a map of the former Base showing the location of the parcels, and explained that environmental documents are now being prepared to support the transfer of these parcels to the Griffiss Local Development Corporation (GLDC). The parcels are F-1, F-2, F-3, F-5, F-8 and F-9. The environmental documents are in various stages of completion, and the AFBCA is giving priority to the parcels for which GLDC has a current planned use. Mrs. Jerrard noted that the Airfield is not included in these transfers at this time and referred to Mr. McDermott's earlier statement regarding the Supplemental Environmental Impact Statement.

Mrs. Jerrard pointed out parcels F-9A and F-9B which are the future site of the Rome High School. The AFBCA conducted further sampling to collect additional data at 9 Areas of Interest (AOIs) within the F-9B site this summer. Those sampling results have come back and been evaluated, and show that the areas are suitable for educational purposes. The regulatory agencies have concurred and transfer documents are now being prepared. Parcels F-9A and F-9B will be transferred to GLDC and then transferred from GLDC to the Rome City School District for the construction of the new High School.

Other transfer documents which are nearly complete include those for the Central Heat Plant, the Small Arms Range, the Credit Union, and a Steam Line Easement (being done in conjunction with the Central Heat Plant). The documents for F-8, Woodhaven Housing, are nearly complete, however this area is not a priority at this time.

16. Mrs. Jerrard next reviewed the status of Areas of Interest. She noted that originally there were over 400 AOIs that were evaluated. It has been determined that most of those sites are not in need of remedial action or further investigation. Screening is being finalized at various Archeological sites, Environmental Baseline Survey sites and Explosive Ordnance Disposal sites. These results will be evaluated by the regulatory agencies.

Eleven of the original AOI sites will undergo further sampling, and work plans are now being prepared for those actions.

Interim Remedial Actions will be conducted at eight of the original AOI sites.

Mrs. Jerrard asked if there were any questions or comments. A member of the audience, Mr. Sallustio, stated that he wanted to thank the New York State Department of Environmental Conservation (NYSDEC) for recognizing that parcel F-9 was not as pristine as some people thought and appreciated their effort in assuring the public that it is a safe area for a school. There was discussion between Mr. Sallustio, Mr. Malagisi, and Jonathan Greco of the NYSDEC regarding the decision to split Parcel F-9 into two parts, Parcels F-9A and F-9B, and conduct further sampling to check on the environmental condition at the F-9B site. Mr. Malagisi also

17. (cont'd) expressed his appreciation for the further investigation that took place, and asked if the AFBCA had placed a public notice in the newspapers regarding that site. It was stated that the notice was published in July, 1999. Mr. Malagisi requested that a copy of the Public Notice be sent to him for his files (copies of the Public Notice and Affidavit of Publication were mailed to Mr. Malagisi on November 17, 1999).

Mrs. Jerrard then introduced Mark Reynolds, Director of Planning and Development for the Griffiss Local Development Corporation.

18. Mr. Reynolds presented an update on GLDC activities.

As of October 1, 1999, GLDC signed a caretaker contract for both the Landside and Airside sections of Griffiss. This is the 4th year for the Landside contract, and the 2nd year for the Airside contract. Mr. Reynolds stated that if anyone had questions on the specific details of those contracts he would be happy to share the information after the meeting, but would not give a detailed explanation during this presentation.

Mr. Reynolds next addressed the Phase III Capital Improvement Program, funded jointly by the Federal Economic Development Administration and the NYS Dormitory Authority. The Capital Improvement Program includes development of the Tech Park Drive site, renovations to SAC Hill buildings, the Hangar Road Extension and the construction of a Shell Building.

At the Tech Park Drive area, the first tenant is scheduled to break ground in the spring and the site has been shown to two other prospective tenants.

Interior renovations have begun on the SAC Hill buildings; two buildings are complete, and three additional buildings will be renovated. The renovations are being done to enhance marketability.

The Hangar Road Extension is on the drawing board, but construction may not start until late next year due to other priorities.

Construction has just commenced on a 55,000 sq. ft. Shell Building, which was discussed in detail at the May 1999 RAB meeting.

Mr. Reynolds stated that if anyone was interested in seeing the designs for any of the above projects, they could give him a call and he would be happy to have them come into the office to see the designs and discuss them.

19. Plans for the Parkway, which is the main state highway between the Skyline and Chestnut Street entrances to Griffiss Business and Technology Park, are progressing. GLDC will have engineers design the road improvements, and should be able to deliver biddable documents to the

19 (cont'd). New York State Department of Transportation (NYSDOT) by December of 2000. There will be several public meetings during this process so that people can review the scope of the project. If everything goes according to schedule, the DOT will let the contract for the work by the Spring of 2001, and the project should be complete by the Fall of 2002. GLDC has been working closely with the Rome City School District and the NYSDOT to insure that this project is complete by the time the new school is ready for occupancy.

20. Mr. Reynolds then reviewed GLDC's plans for the utilities on the former Base. GLDC intends to operate the electric, telephone and steam systems. The water and sewer systems will be transferred to the City of Rome; Mr. Reynolds noted that the water and sewer services are paid for by user fees, and the taxpayers of Rome will bear no increased tax burden as a result of this transfer.

Mr. Reynolds explained that he had spent much of his time over the past year working on the utility systems' takeover. He reviewed the application process, and the regulatory requirements of state and federal agencies for both the steam and electric utility systems. GLDC's intent is to be able to provide less expensive heat and electric power in the interest of attracting tenants to the Business and Technology Park. Applications have been submitted and it is hoped that GLDC will receive approval by the end of the year.

GLDC issued a Request for Proposal (RFP) for maintenance of the telephone lines and equipment; four proposals were received. Adelphia Business Solutions, the fourth largest telephone company in the United States, was the successful bidder. They have a five year agreement to maintain the telephone system, and will also install fiber optic cable. They will not have an exclusive right to provide all telephone service at Griffiss. Griffiss Business and Technology Park tenants will be able to chose their own telephone service, however, Adelphia will be the preferred provider.

21. Mr. Reynolds then asked if there were any questions or comments from the audience. He answered several questions from the audience regarding the utility systems. He noted that in the future GLDC would be making improvements to the underground utility infrastructure.

Mrs. Melkum asked if the plans for the new High School had a negative impact on the GLDC's ability to attract business tenants. Mr. Reynolds responded that GLDC was not involved in the decision-making process regarding location of the new school, but that the Business and Technology Park is zoned for educational institutions. However, it is his impression that prospective tenants feel that the school will be a positive addition.

22. Michael McDermott, BRAC Environmental Coordinator, stated that although he had reviewed the status of the environmental projects at previous meetings, he felt it would be helpful if the Restoration Advisory Board had a general overview which showed the amount of progress made-to-date and the amount of work still left to be done. Mr. McDermott displayed a series of photographs and graphs that illustrated the current status of the program.

23. Soil Remediation and Removal: At this point, a total of 101,815 tons of soil have been remediated or removed. This includes:

> 100,000 tons of contaminated soil that have been taken to the Landfarm sites; of this total, 36,000 tons of petroleum-contaminated soil have been remediated.
>
> 54,000 tons of PCB contaminated soil and 11,785 tons of lead contaminated soil have been removed.

24. Federal Facilities Agreement Sites: There are a total of 43 of these sites: 31 of these are Hazardous Waste (CERCLA) sites, two (2) are Areas of Interest, nine (9) are petroleum sites and there is also the Small Arms Range. All of these sites have to go through the Proposed Plan and Record of Decision process. Of the 43 site total, six (6) have completed the Proposed Plan stage and Records of Decision have been completed for five (5). Therefore, the majority of these sites still have to go through the Proposed Plan and Record of Decision process.

25. Areas of Interest: There was a total of 235 AOIs (excluding the screened miscellaneous Environmental Baseline Survey factors or those AOIs covered under other programs). Of the 235 AOIs, 215 have been closed. Proposed action is pending at eight (8) AOIs, and action has been completed at one (1) AOI. Eleven (11) AOIs will have additional sampling (as explained earlier in the program by Cathy Jerrard).

26. Petroleum Sites: There were a total of 368 Underground Storage Tanks: 330 of these tanks have been removed, leaving 38 tanks awaiting removal or transfer. There was a total of 137 petroleum spills (mostly from underground tanks); 73 spills have been cleaned and closed, leaving a total of 64 open spill sites that require remediation.

27. Hazardous Waste/ Material Storage Facilities: There was a total of 83 Hazardous Waste/Material Storage Facilities. Of these, 76 have been closed and seven (7) remain open.

28. Following his presentation, Mr. McDermott asked for questions or comments from the group. A member of the audience asked what the total cost of the Environmental Program was to-date. Mr. McDermott replied that he did not have those figures with him, and did not want to provide a figure without checking his records, but would make sure that the figure was included in the minutes of the meeting. Mr. McDermott has reported that $92 Million dollars has been spent to-date.

29. There being no further questions or comments, Mr. McDermott thanked the group for their interest and attendance and adjourned the meeting at 6:00 PM.

Respectfully submitted,

Barbara H. Pratt
Community Relations Specialist
Restoration Advisory Board

Attachment(s): 1. Distribution List
2. Program Presentation Packet
3. Meeting Handout: List of Acronyms

Distribution List
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ACRONYMS

AFBCA	Air Force Base Conversion Agency
AOC	Area of Concern
AOI	Area of Interest
AR	Administrative Record
AST	Aboveground Storage Tank
BCP	BRAC Cleanup Plan
BCT	BRAC Cleanup Team
BRAC	Base Realignment and Closure Commission
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980; known as "Superfund"
CDR	Covenant Deferral Request
CRP	Community Relations Plan
DD	Decision Document
DERA	Defense Environmental Restoration Account
DERP	Defense Environmental Restoration Program
DFAS	Defense Finance and Accounting Services
DoD	Department of Defense
EBS	Environmental Baseline Survey
EDGE	Economic Development Growth Enterprises, Inc.
EE/CA	Engineering Evaluation/Cost Analysis
EIS	Environmental Impact Statement
ESI	Expanded Site Investigation
FFA	Federal Facilities Agreement
FOSET	Finding of Suitability for Early Transfer
FOSL	Finding of Suitability to Lease
FOST	Finding of Suitability to Transfer
FS	Feasibility Study
GAFB	Griffiss Air Force Base
GLDC	Griffiss Local Development Corporation
IR	Information Repository
IRA	Interim Remedial Action
IRP	Installation Restoration Plan
NCP	National Oil and Hazardous Substances Pollution Contingency Plan of 1980
NEADS	Northeast Air Defense Sector
NFA	No Further Action
NPL	National Priorities List
NYANG	New York Air National Guard
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OWS	Oil/Water Separator
PP	Proposed Plan

ACRONYMS

RAB	Restoration Advisory Board
RCRA	Resource Conservation and Recovery Act of 1976
ROD	Record of Decision
SAC	Strategic Air Command
SAR	Small Arms Range
SARA	Superfund Amendments and Reauthorization Act of 1986
SEBS	Supplemental Environmental Baseline Statement
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank

Griffiss Environmental Program



Restoration Advisory Board (RAB)

NOVEMBER 16, 1999

AFBCA PERSONNEL

Site Manager 315-330-4092/DSN 587-4092

Anna Lemaire

Gail Waxler, Secretary

Real Estate/Real Property

Sandi Ziankoski

Correen Pounds

Quality Assurance Evaluators

Dick Petkovsek

John Decharo

Public Affairs

Carl Sahre

Environmental 315-330-2275/DSN 587-2275

Mike McDermott, BRAC Environmental Coordinator

Cathy Jerrard, Environmental Engineer

Mark Rabe, Environmental Engineer

Mike Wojnas, Environmental Engineer

Kathy Freebern, Secretary

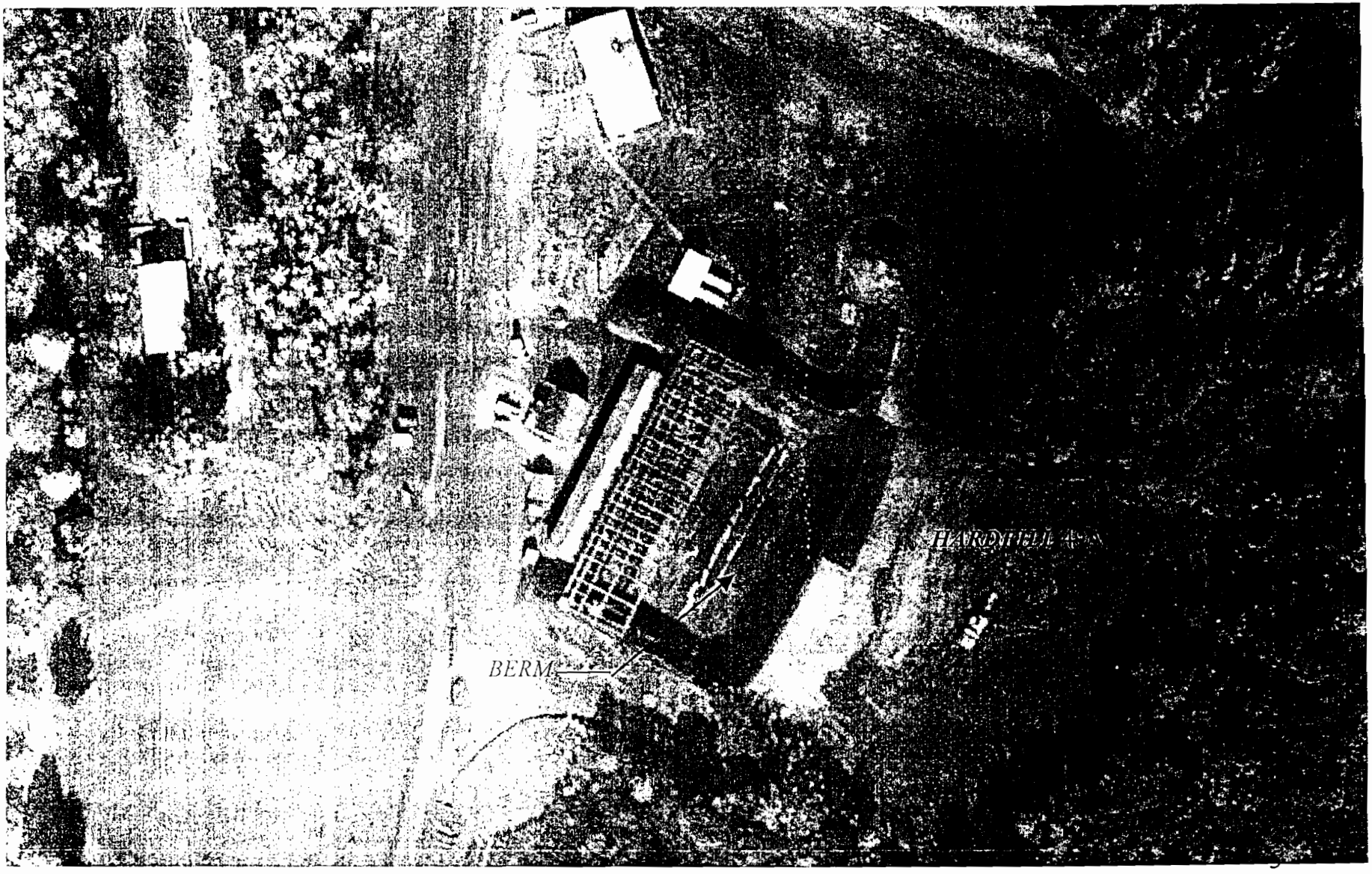
RAB MEETING AGENDA

- **Introduction & Welcome - Michael McDermott, BRAC Environmental Coordinator**
- **Small Arms Range - Mark Rabe, Environmental Engineer**
- **Airfield Environmental Program - Mark Rabe**
- **Petroleum Program - Mark Rabe**
- Current and Proposed Projects - Michael Wojnas, Environmental Engineer
  - Three Mile Creek and Six Mile Creek Feasibility Study
  - 5 Records of Decisions (RODs)
  - Landfill 1
  - Landfills 2/3, 4, 5, 6, 7
  - 4 Areas of Concern (AOCs)
- Property Transactions - Cathy Jerrard, Environmental Engineer
- Areas of Interest - Cathy Jerrard
- Griffiss Local Development Corporation (GLDC) Update - Mark Reynolds, Director of Planning & Development, Oneida County EDGE
- Summary of Environmental Program - Michael McDermott
- Questions and Comments

SMALL ARMS RANGE

- **Former Air Force Firing Range (Lead Contamination)**
  - Approximately 12,000 tons of soil
  - Berm rebuilt
  - Ready for transfer
- **Hardfill 49A Project - Spring 2000**
  - Located east of the Small Arms Range

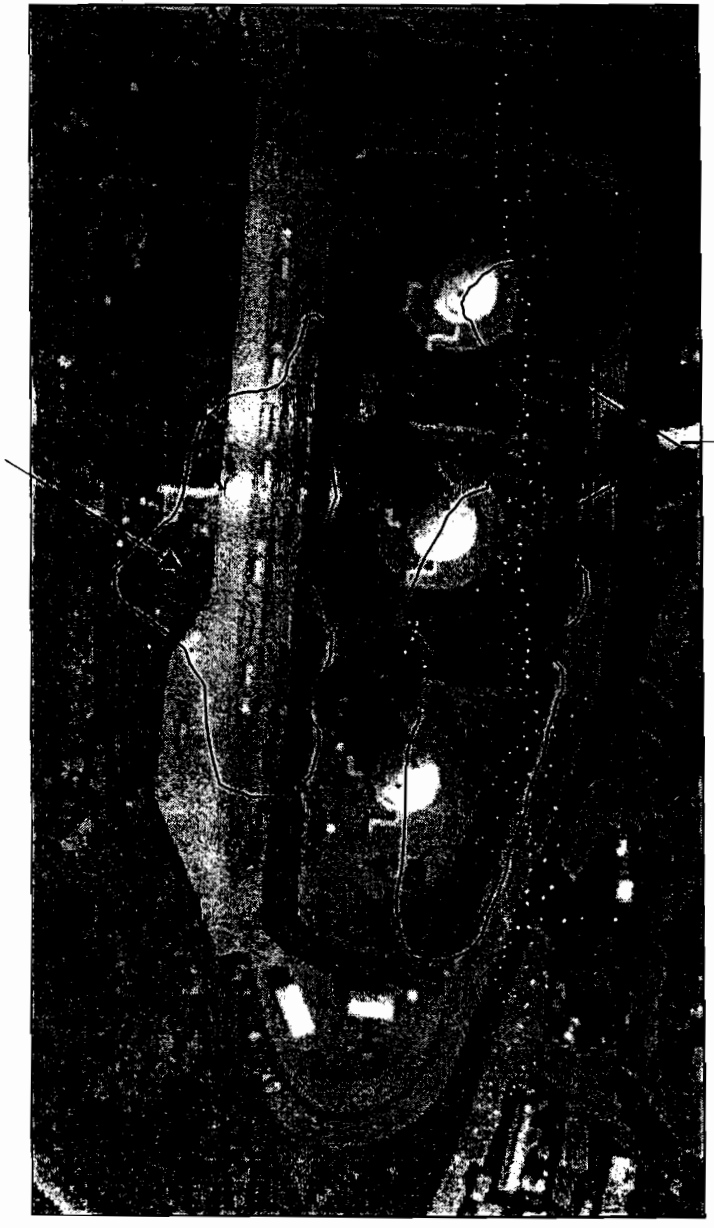
SMALL ARMS RANGE



AIRFIELD ENVIRONMENTAL PROGAM

- **Barge Canal Facility - Route 49**
  - Three Aboveground Storage Tanks (ASTs) cleaned and closed in place
  - Pipelines cleaned, two Underground Storage Tanks (USTs) removed
  - Soil and Groundwater Contamination (mainly from equipment drainage systems)

BARGE CANAL FACILITY



AIRFIELD ENVIRONMENTAL PROGAM

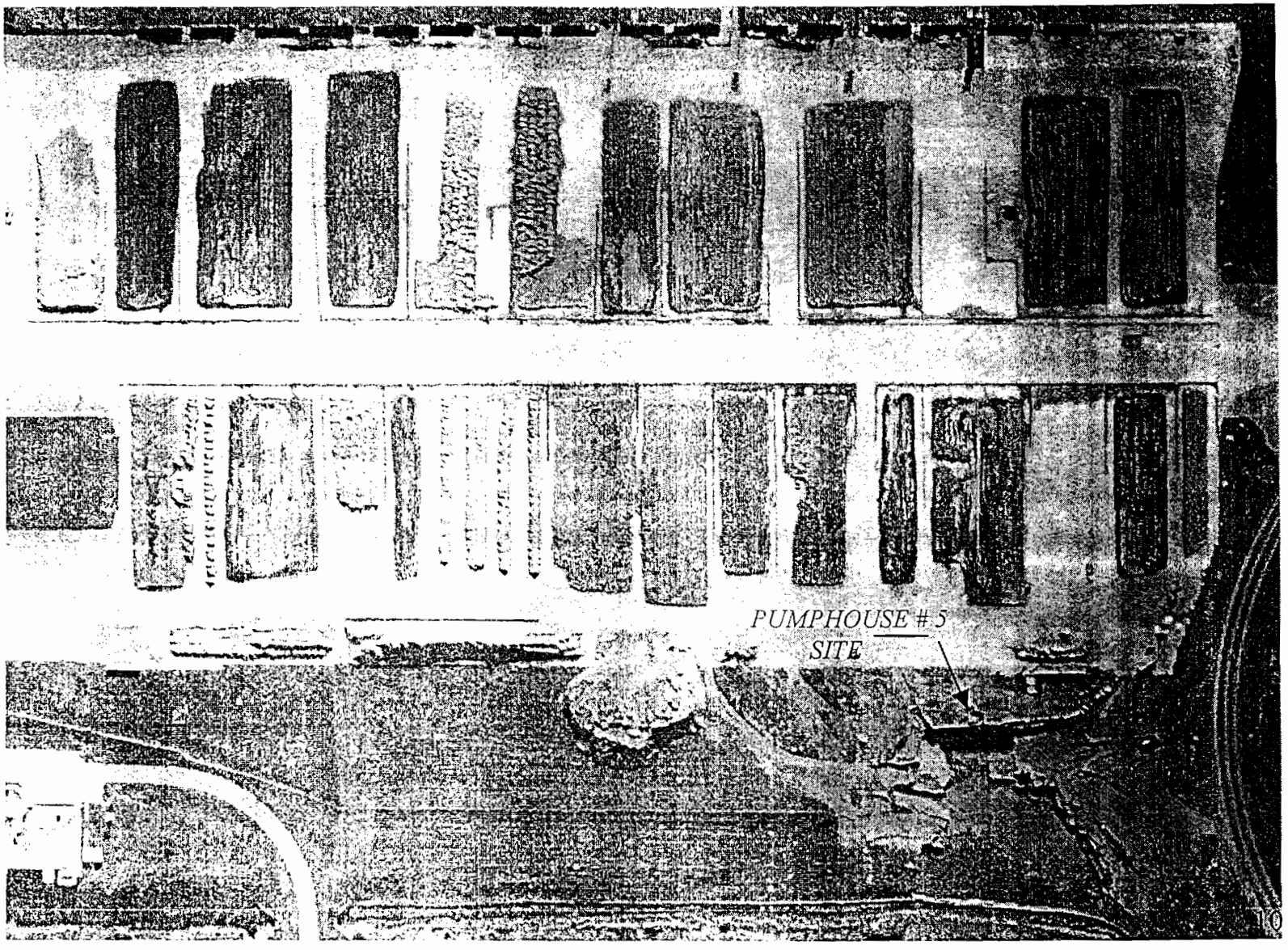
- **Fire Protection Training Area**
  - Phase II Remediation scheduled for Spring 2000

- **Base Gas Station (B/43)**
  - Gas Station to remain operational with aboveground storage tanks
  - Underground storage tanks to be removed; scheduled for Spring 2000

PETROLEUM PROGRAM

- **Pumphouse #5**
  - Removal of residual soil contamination
  - 34,000 tons to Landfarm
- **Landfarm Status**
  - Apron #1 - 27,000 tons remediated
  - Alert Apron - 5,000 tons remediated
  - Weapons Storage Area - 4,000 tons remediated
  - $750,000 savings

APRON 1 LANDFARM/PUMPHOUSE # 5



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THREE MILE CREEK AND SIX MILE CREEK
FEASIBILITY STUDY

- Additional Off-Base sampling of Three Mile Creek Pond, north of Route 49, was performed last week (Nov. 8-10)
- Issue final Feasibility Study - April 2000
- Issue Proposed Plans for public review - August 2000
- Public Meeting on Proposed Plans - September 2000
- Issue Record of Decision (ROD) - November 2000

5 RECORDS OF DECISION (RODs)

- **FINAL RECORDS OF DECISION:**

  - No Further Action (NFA)
    - Suspected Fire Training Area

  - NFA with Land Use Restrictions
    - Building 219 Drywell
    - Building 214
    - Fire Demonstration Area

  - Institutional Controls (Land/Groundwater Use Restrictions)
    - Building 301 Drywell

5 RECORDS OF DECISION (RODs)

- **FINAL RECORDS OF DECISION:** (cont'd)

  - Final RODs issued to the Regulators (USEPA & NYSDEC)* on September 14, 1999
  - NYSDEC concurred with the RODs on September 16, 1999
  - USEPA signed the RODs on September 30, 1999
  - Public Notice to be issued - December 1999

* USEPA - United States Environmental Protection Agency
NYSDEC - New York State Department of Environmental Conservation

LANDFILL #1

- **Presumptive Remedy to install a Membrane Cap and Groundwater/Leachate Treatment System**

  – Proposed Plan issued on July 16, 1999

  – Public Comment Period from July 20 through August 19, 1999

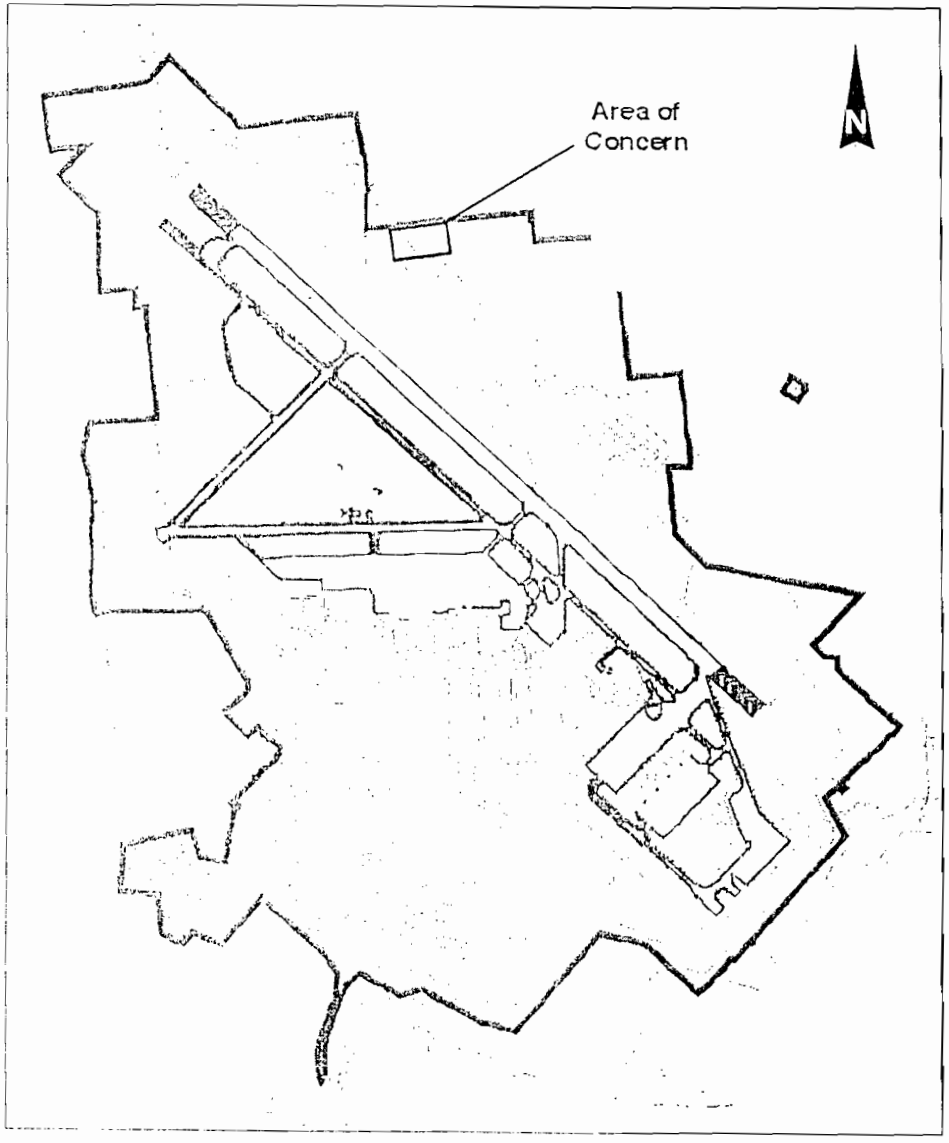
  – Public Meeting held on August 10, 1999

  – Draft Record of Decision issued to NYSDEC and USEPA on October 21, 1999

  – Implementation of Record of Decision - Spring 2000

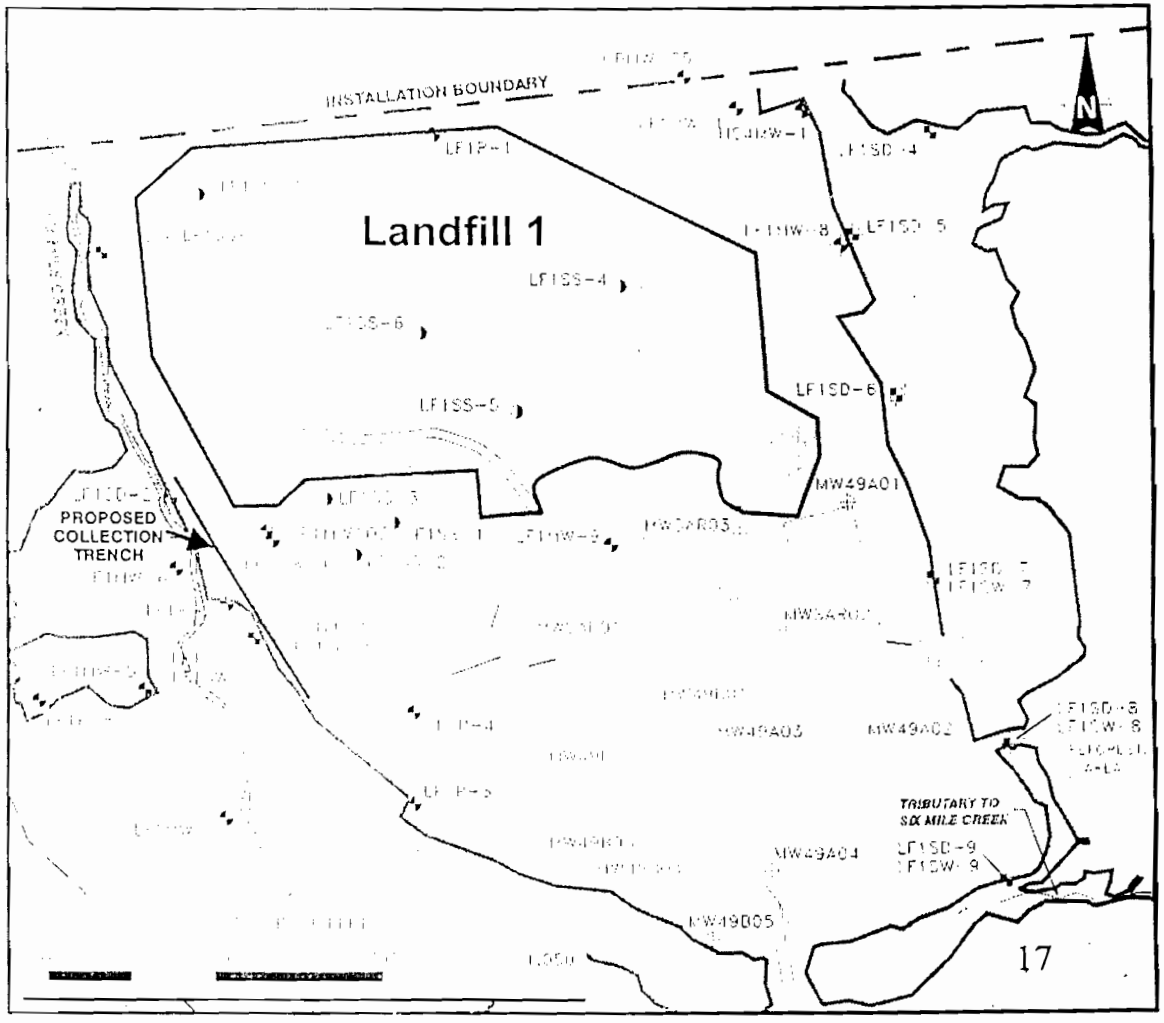
  – Completion of Remedial Action - Fall 2001

Landfill 1 AOC



Landfill 1 AOC

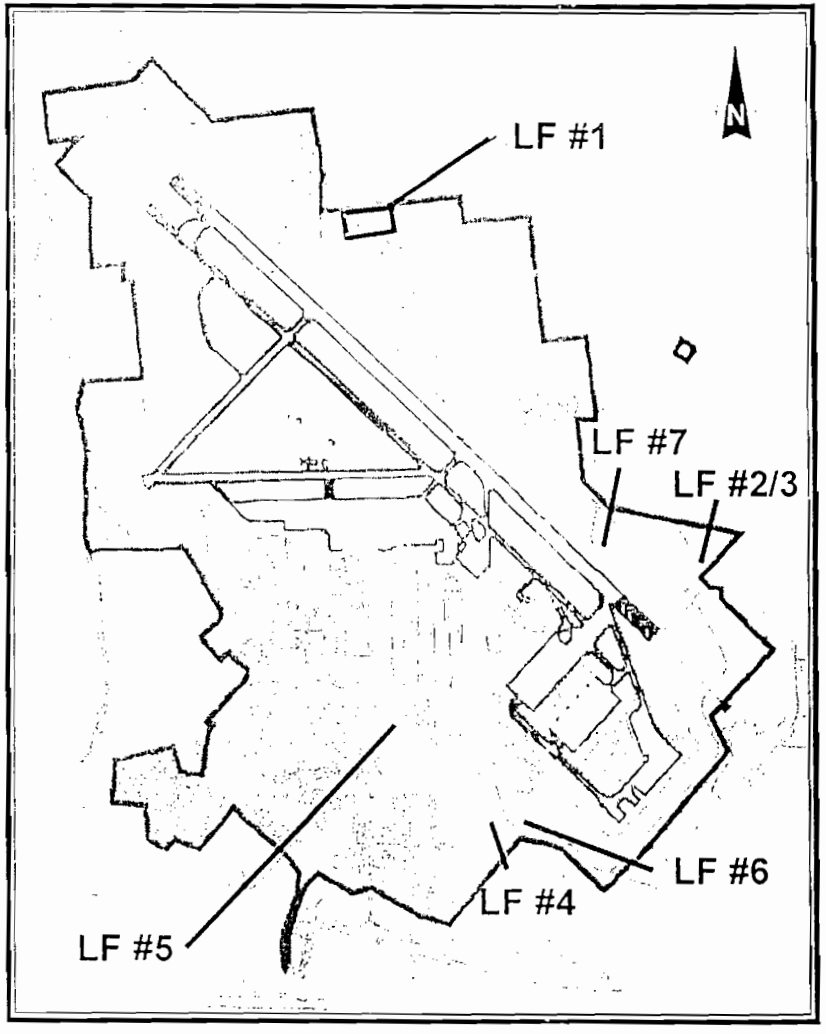
19.6-acre site operated primarily as a trench-and-cover landfill from 1960 to 1973



LANDFILLS 2/3, 4, 5, 6, 7

- Landfill Draft Proposed Plans under Review
  - Issue Proposed Plans (Presumptive Remedy) to public
    - Landfills 2/3, 4, 5, & 7 - December 1999
    - Landfill 6 - May 2000
  - Hold Public Meeting on Proposed Plans
    - Landfills 2/3, 4, 5, & 7 - January 2000
    - Landfill 6 - June 2000
  - Issue Record of Decision
    - Landfills 2/3, 4, 5, & 7 - March 2000
    - Landfill 6 - July 2000

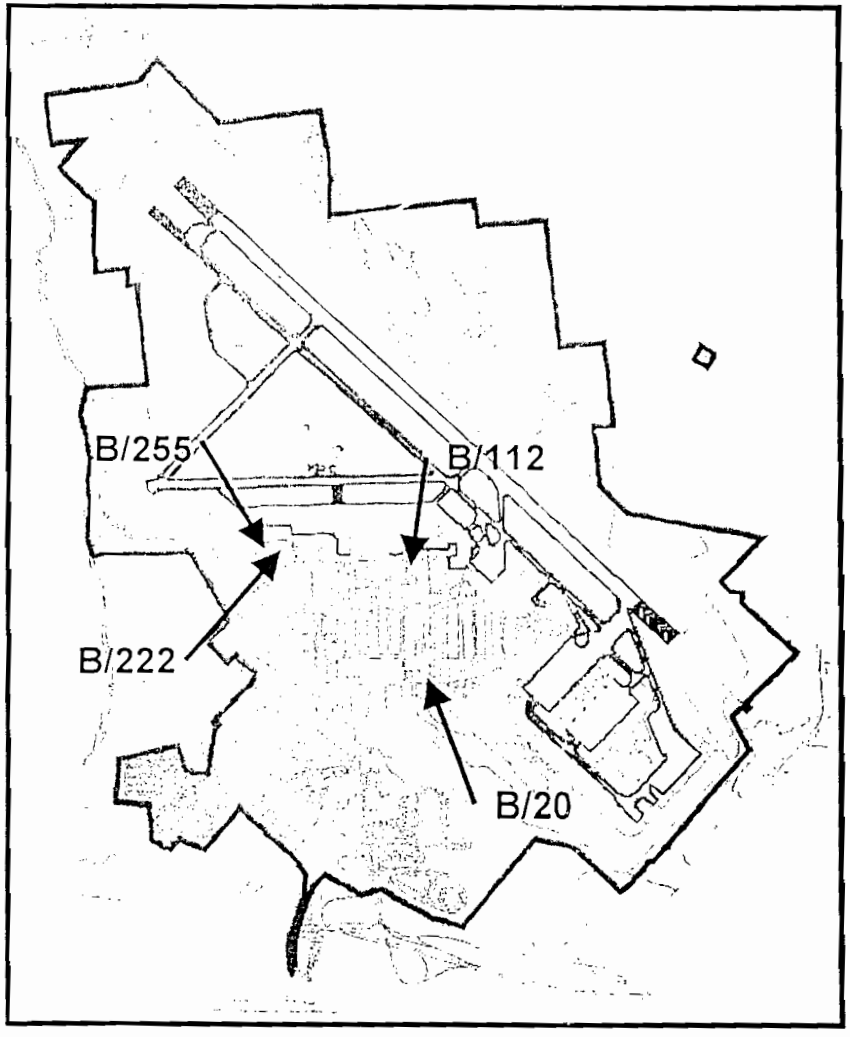
LANDFILLS 2/3, 4, 5, 6, 7



4 AREAS OF CONCERN (AOCs)

- **Interim Remedial Actions (IRAs) completed late Summer 1999**
  - Building 20 - Locomotive Roundhouse
  - Building 112 - PCB Spills
  - Building 222 - Battery Acid Disposal Pit
  - Building 255 - Drywells
- Closure Report being drafted
- Proposed Plans to be issued by March 2000 based on regulator acceptance of IRA Closure Report
- Public Meeting - April 2000
- Record of Decision - June 2000

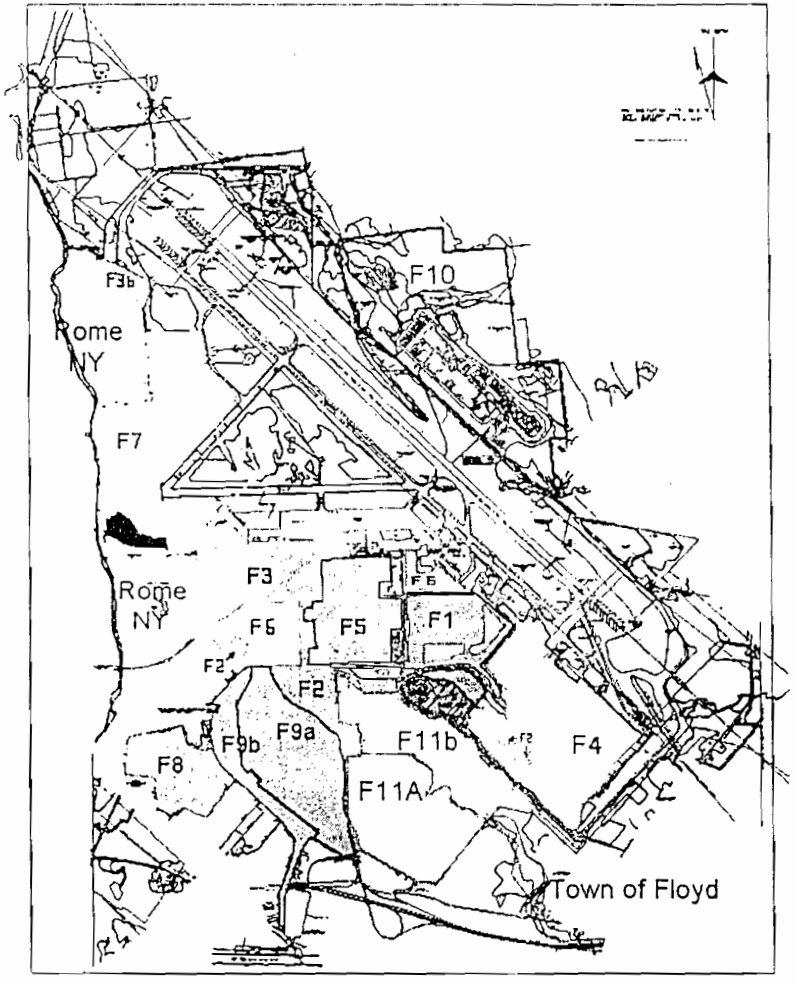
4 AREAS OF CONCERN (AOCs)



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- Questions and Comments

PROPERTY TRANSACTIONS



PROPERTY TRANSACTIONS

- **Environmental Documents in process to support Property Transfer for the following properties:**
  - Parcels F-1, F-2, F-3, F-5, F-8, F-9
  - Central Heat Plant
  - Small Arms Range
  - Credit Union
  - Steam Line Easement

AREAS OF INTEREST

- **Parcel F-9: Rome High School Site**
  - 9 AOI sites sampled
  - Regulators concurred that property is suitable for educational purposes
  - Transfer documents now being prepared

AREAS OF INTEREST

- **Active Areas of Interest (AOIs)**
  - PCI, OTH, EOD Sites - screening being finalized
  - 11 sites to undergo further sampling
  - 8 sites to undergo interim remedial actions

PCI - Panamerican Consultants (Archeological)
OTH - Other Environmental Factor (Environmental Baseline Survey)
EOD - Explosive Ordnance Disposal

RAB MEETING AGENDA

- Introduction & Welcome - Michael McDermott, BRAC Environmental Coordinator
- Small Arms Range - Mark Rabe, Environmental Engineer
- Airfield Environmental Program - Mark Rabe
- Petroleum Program - Mark Rabe
- Current and Proposed Projects - Michael Wojnas, Environmental Engineer
  - Three Mile Creek and Six Mile Creek Feasibility Study
  - 5 Records of Decisions (RODs)
  - Landfill 1
  - Landfills 2/3, 4, 5, 6, 7
  - 4 Areas of Concern (AOCs)
- Property Transactions - Cathy Jerrard, Environmental Engineer
- Areas of Interest - Cathy Jerrard
- **Griffiss Local Development Corporation (GLDC) Update - Mark Reynolds, Director of Planning & Development, Oneida County EDGE**
- Summary of Environmental Program - Michael McDermott
- Questions and Comments

GLDC UPDATE

- **Caretaker: Fiscal Year 2000**
  - Continue Landside & Airside Caretaker Contracts
    October 1, 1999 - September 30, 2000

- **EDA/ESDC* Phase III Capital Improvement Program**
  - Tech Park Drive
  - SAC Hill building renovations
  - Hangar Road Extension
  - Shell Building

* Federal Economic Development Agency
NYS Empire State Development Corporation

GLDC UPDATE

- **Parkway Design Status**
  - Design December 2000
  - Construction June 2002

- **Utilities Status**
  - Electric
  - Telephone
  - Steam
  - Water/Sewer

RAB MEETING AGENDA

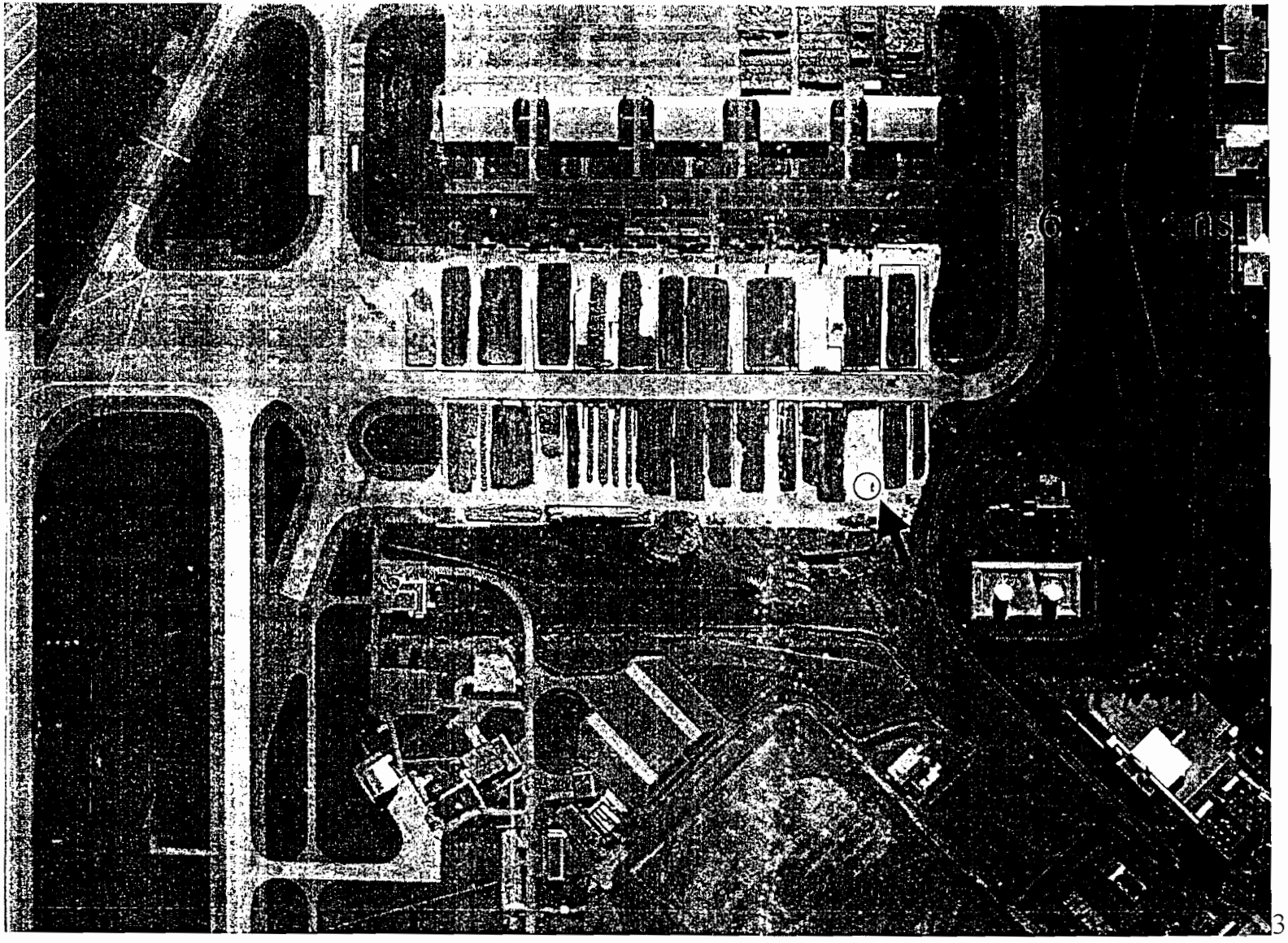
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- Questions and Comments

SUMMARY OF ENVIRONMENTAL PROGRAM

MAJOR INTERIM REMEDIAL ACTIONS (Basewide)

- **Soil Remediation**
  - 100,000 tons - Total Landfarm loading to date
  - Petroleum contaminated soil remediated to date - 36,000 tons
- **Soil Removal**
  - PCB contaminated soil removed to date - 54,030 tons
  - Lead contaminated soil removed to date - 11,785 tons
- **Total Soil Remediated or Removed to date: 101,815 tons**

SUMMARY OF ENVIRONMENTAL PROGRAM



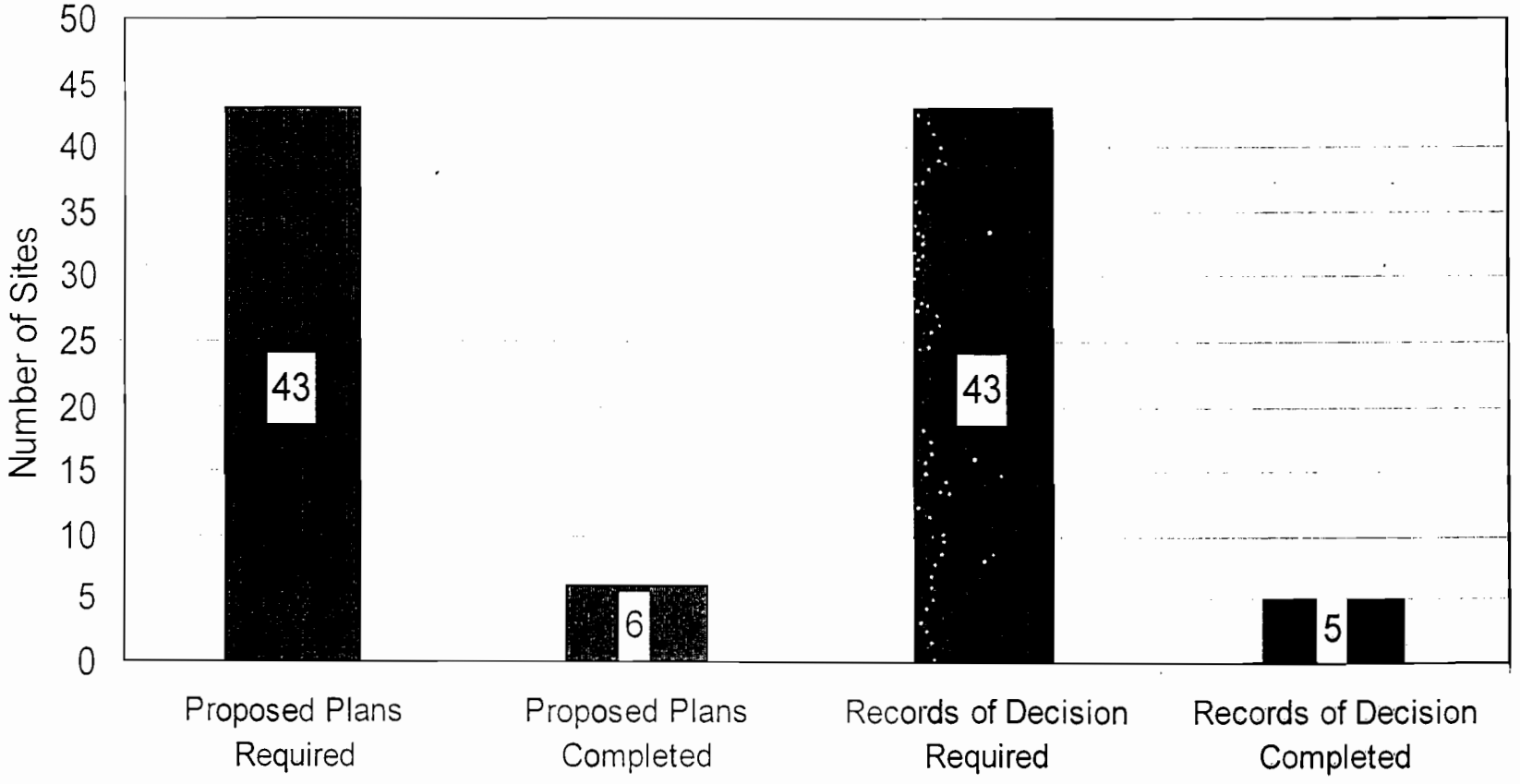
SUMMARY OF ENVIRONMENTAL PROGRAM

FEDERAL FACILITIES AGREEMENT SITES - 43

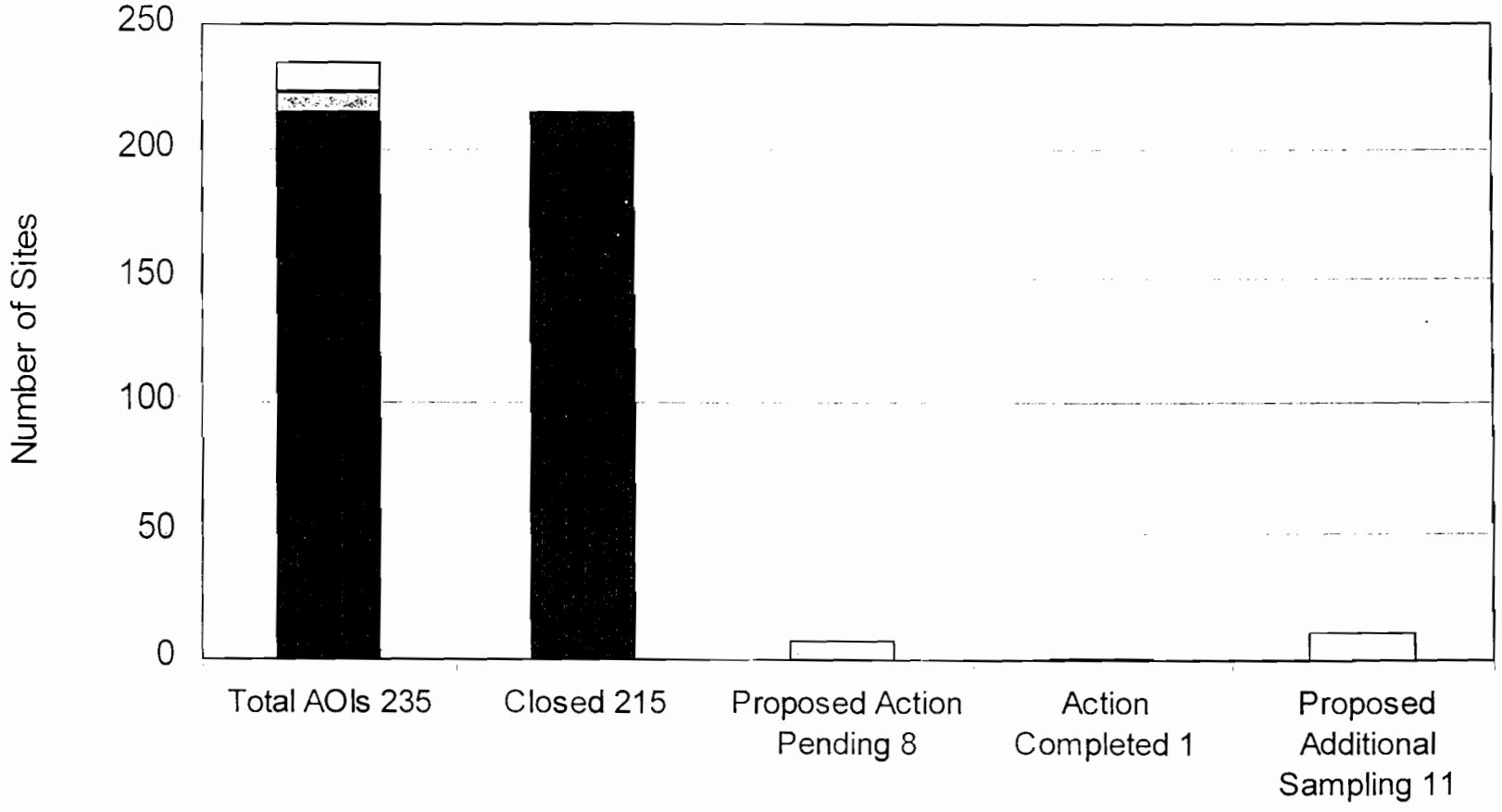
- CERCLA (Hazardous Waste Sites) - 31
- Areas of Interest - 2
- Petroleum Sites - 9
- Small Arms Range -1
- Total - 43

SUMMARY OF ENVIRONMENTAL PROGRAM

Federal Facilities Agreement Sites - 43



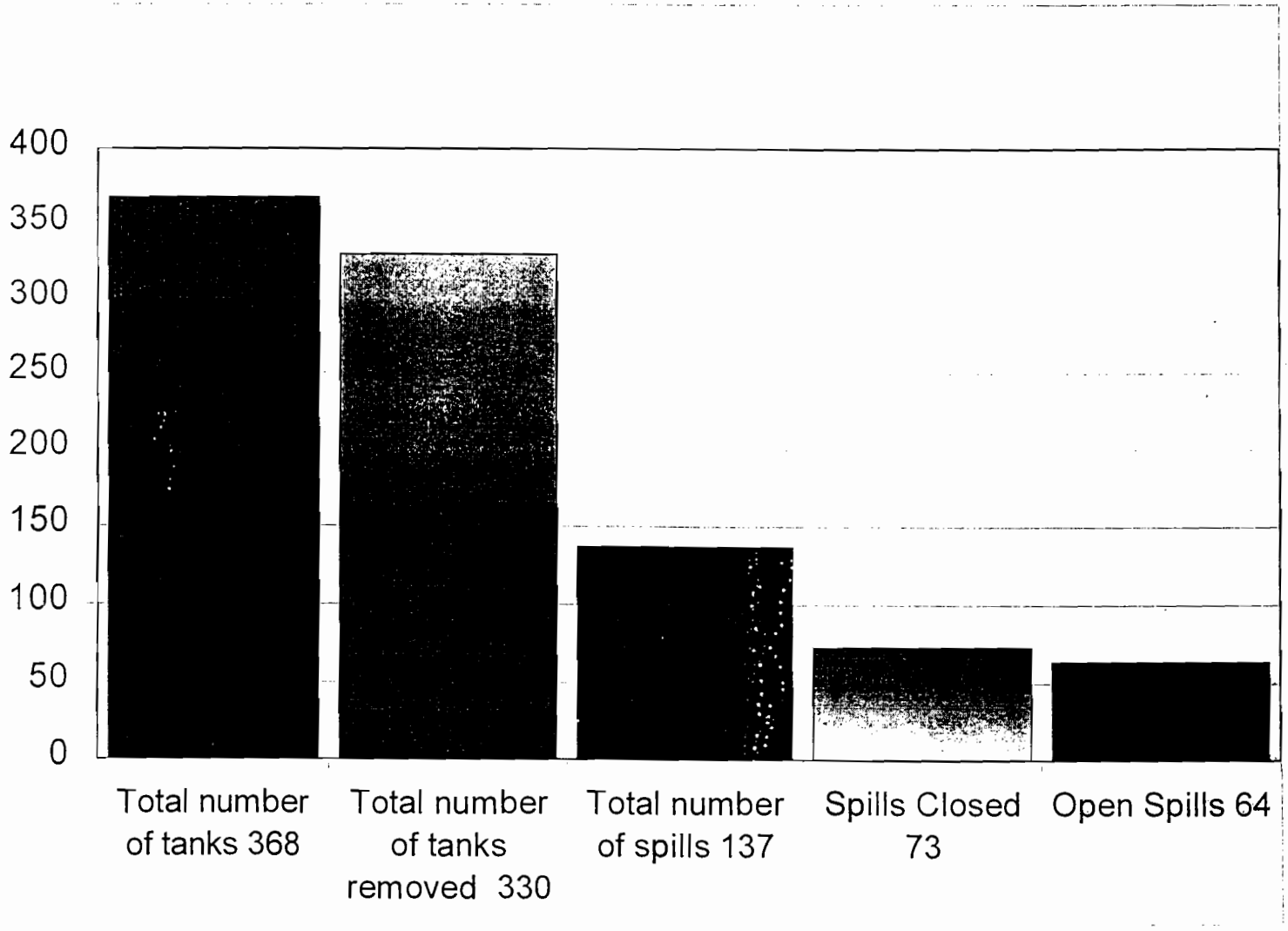
SUMMARY OF ENVIRONMENTAL PROGRAM
Areas of Interest



Total does not include screened miscellaneous Environmental Baseline Survey Factors or AOIs covered under other programs

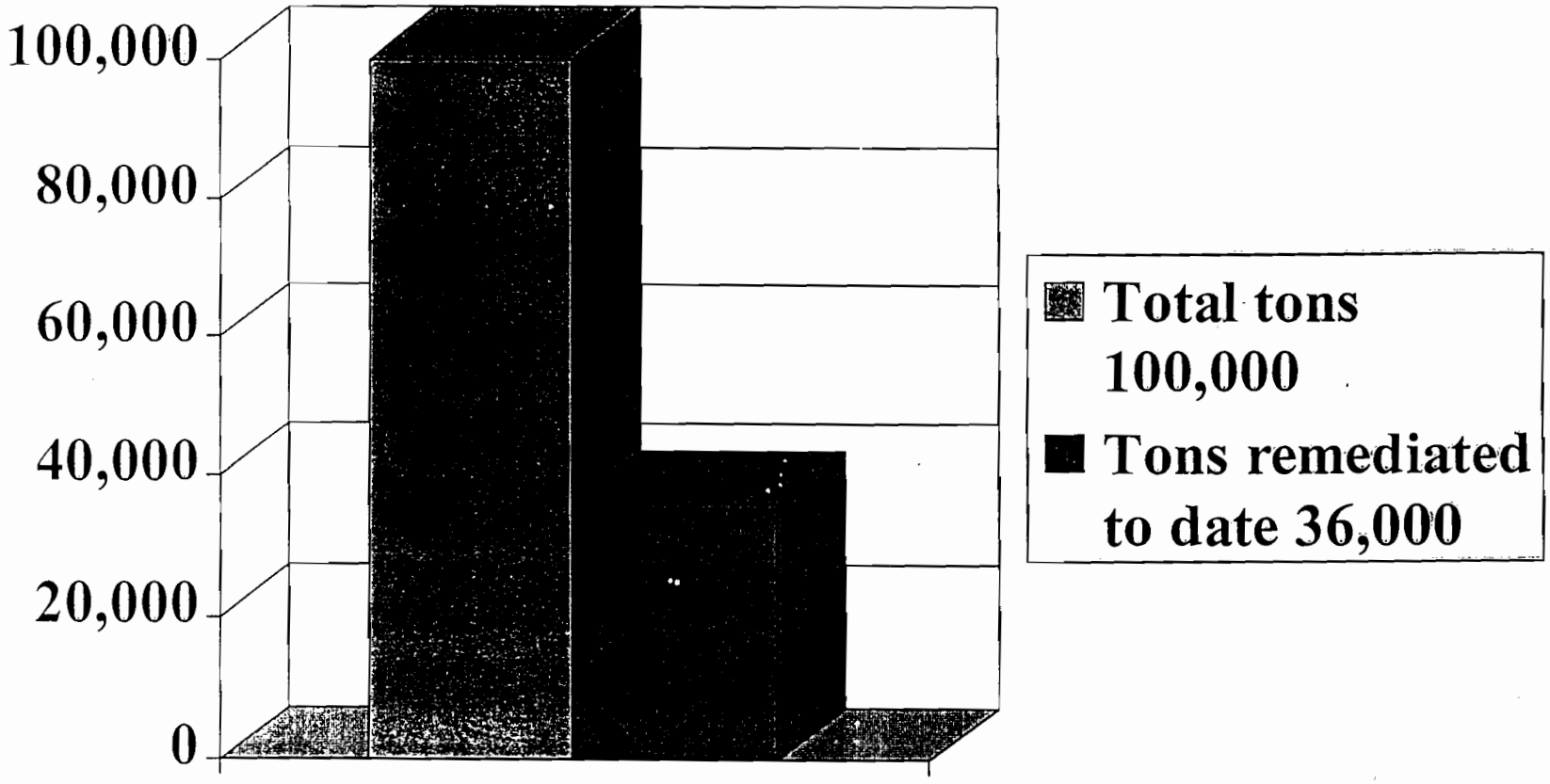
SUMMARY OF ENVIRONMENTAL PROGRAM

Petroleum Sites



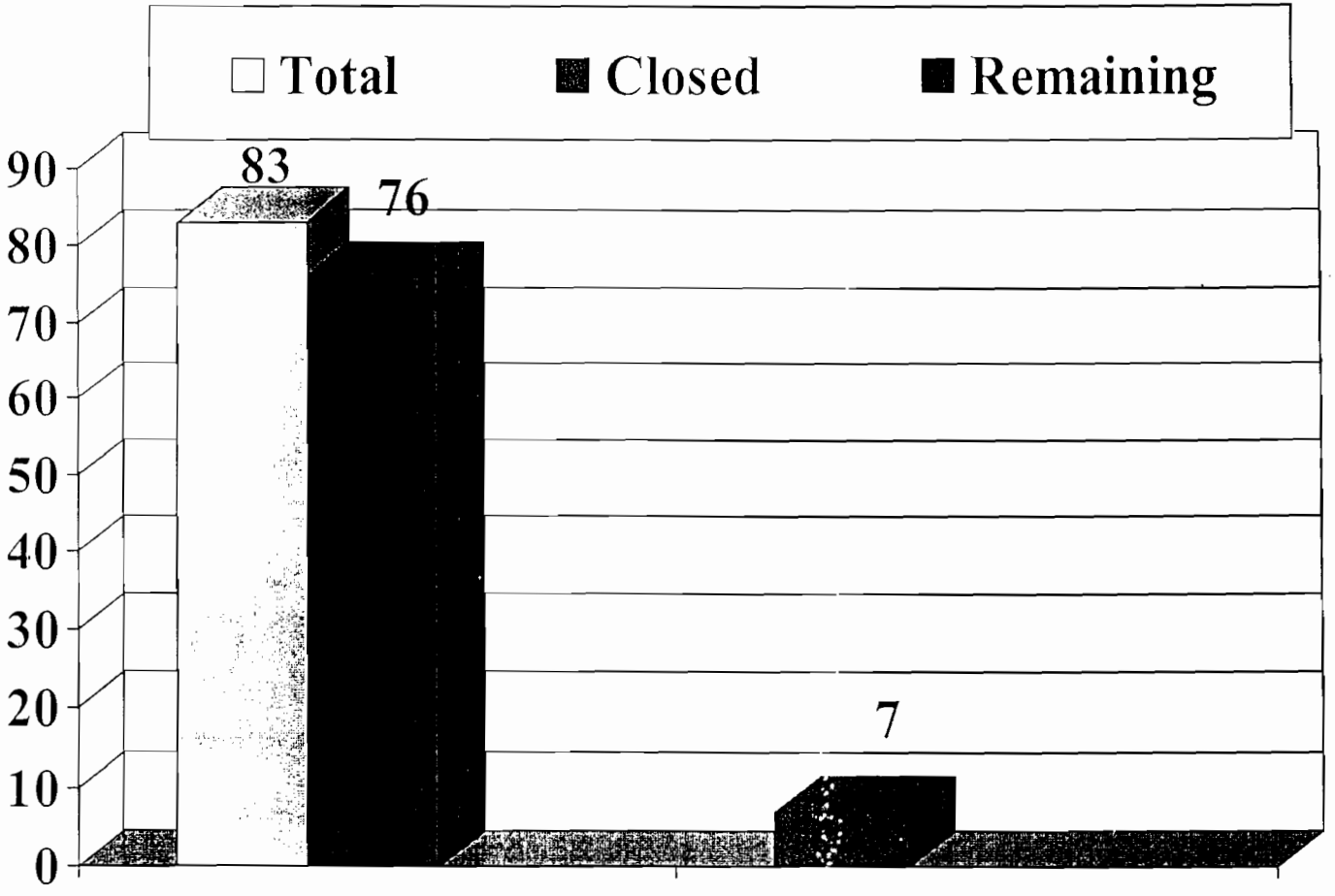
SUMMARY OF ENVIRONMENTAL PROGRAM

Landfarming

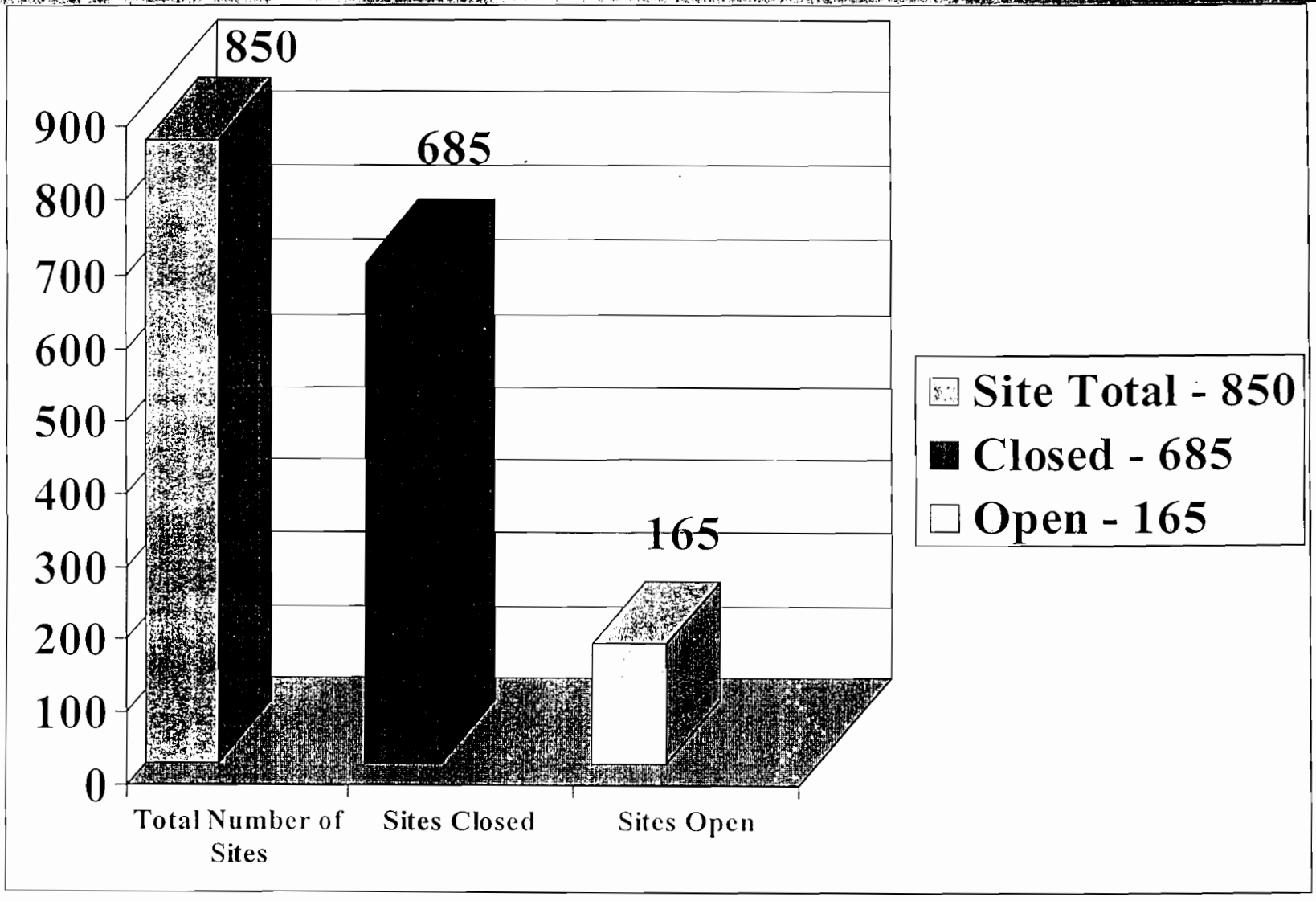


SUMMARY OF ENVIRONMENTAL PROGRAM

Hazardous Waste/Material Storage Facilities



SUMMARY OF ENVIRONMENTAL PROGRAM



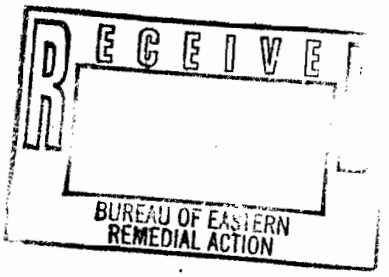
Total does not include screened miscellaneous Environmental Baseline Survey Factors.

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- Summary of Environmental Program - Michael McDermott
- **Questions and Comments**

J. Greco, NYSDEC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866



MAR 3 0 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Rome, NY 13441-4105

Re: Draft Finding of Suitability to Transfer (FOST) F-4A and Draft Finding of Suitability to Lease (FOSL) F-12A

Dear Mr. McDermott:

EPA has reviewed the Draft Finding of Suitability to Transfer ("FOST") and Supplemental Environmental Baseline Survey ("SEBS") for Parcel F-4A, dated January 2000, as well as the Draft Finding of Suitability to Lease ("FOSL") and Supplemental Environmental Baseline Survey ("SEBS") for Parcel F-12A, dated January 2000. Please note these comments were informally provided to you; however, a formal comment letter was never issued because you had indicated that the transfer was withdrawn.

It is now my understanding that the reuse authority still wishes to obtain the transfer of Parcel F-4A and the lease of Parcel F-12A and therefore, I have now formalized my comments. Please review these comments and provide within the draft-final documents a "Response to Regulator Comments" for both the F-4A FOST and the F-12A FOSL.

General Comments

1. The documents indicate that the area is to be used as a steel manufacturing facility. However, because this reuse is no longer applicable, please revise the documents to indicate the intended reuse for each parcel.

2. When the FOST or FOSL references that a cleanup is "Covered Under Another Program" or "Covered Under Project JREZ...", please included the specific regulatory program which is overseeing and approving the cleanup.

3. Since ACM or LBP has been noted on the properties and since the transferee/lessee may be performing construction/ renovation activities, the Air Force should ensure that ACM and LBP management plans are submitted prior to beginning these activities. I also recommend the FOST and FOSL specify where such plans are to be sent prior to the transferee/lessee beginning any construction/renovation activities.

4. Within both figures, the area north of Building 789 contains subsurface soil and groundwater restrictions due to petroleum interim remedial actions. However, the figure has different shaded areas indicating different restrictions are applicable. Please clarify.

FOST F-4A

5) The FOST indicates that there is a reforestation area on the southern end of the property. Please note, I do not consider this area as an area to be used for similar reuse and therefore, it does not qualify for a CATEX exclusion. Should the intended transferee wish to construct in this area, approval should first be obtained from NEPA. Otherwise, the FOST should stipulate with deed restrictions that construction will not occur in this reforestation area.

FOSL 12-A

6) Other than the general comments noted above, I have no other comments for this parcel.

Sincerely,

Douglas M. Pocze
Project Manager
Federal Facilities Section

cc: L. Hancsak, AFBCA/NE
S. DiMeo, Executive Director (GLDC)
M. Rabe, GAFB

JG

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

RECEIVED
MAR
BUREAU OF EASTERN REMEDIAL ACTION
29 MAR 2000

MEMORANDUM FOR Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

Douglas Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

FROM: AFBCA/DA – Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: DRMO Closeout Report

1. Attached are the following documents:

   a. Response to USEPA comments on DRMO Closeout Report and QCSR.

   b. Revised DRMO Closeout Report text.

   c. DRMO QCSR revised pages.

2. If you have any questions, please contact Cathy Jerrard at (315) 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachments: As noted.

cc: Mr. Brett Gorham, USACE NY District

IT Corporation
2790 Mosside Boulevard
Monroeville, PA 15146-2792
Tel. 412.372.7701
Fax. 412.373.7135

A Member of The IT Group

March 23, 2000

773216-ITCHO-0092

William G. Ebersbach, P.E.
U.S. Army Corps of Engineers
Fort Drum Resident Office
4895 Nininger Street
Fort Drum, NY 13602

Contract: DACW41-94-D-9013 Delivery Order 003 ; DRMO Interim Remedial Action, Former Griffiss Air Force Base; Rome, New York

Subject: Submission of Response to USEPA Comments on DRMO Closeout Report and QCSR

Dear Mr. Ebersbach:

IT Corporation (IT) is submitting for your review the response to USEPA Comments on the DRMO Closeout Report and QCSR. The revised DRMO Closeout Report text and 3 revised pages from the QCSR are also included with this submittal. To aid in your review of the response to comments, IT has included the regulator's comments followed by IT's responses.

If you have any questions or comments regarding this submission, please contact me at 412-372-7701 to discuss.

Sincerely:

IT CORPORATION
Jim Samuels for

David C. Stahl, P. E.
Project Manager

DCS:lmk
Enclosure

cc: J. Wojnas C. Jerrard
K. Boese S. Green

General Comments

1. The report indicates that previous investigations detected the presence of PCB, semivolatile organics, and metals contamination at the DRMO site; however, the sources of this information are not included. Previous investigations should be referenced.

IT Response:

The primary source of information for the DRMO area was taken from the following report: Addendum to Results and Recommendations, Pre-closure Site Sampling Analysis: (Delineation of Building 35 and the Defense Reutilization and Marketing Office Area) Hazardous Waste/Hazardous Material Storage Area Closures at the Former Griffiss Air Force Base, Rome, New York, Parsons Engineering Science, Inc., Liverpool, New York and OHM Remediation Services Corp., Trenton, New Jersey, April 1997. This reference has been included in Section 1.2, page 1-4.

2. Throughout the text and the appendices, the DRMO area is identified repeatedly as the Building 35 area, and once as the Coal Yard Storage area (Appendix E, Section 4.0). This change in area designation is confusing and should be avoided, since the Building 35 area, the DRMO area, and Coal Yard Storage area are identified in Figure 1 as distinct and separate areas. All references should be converted to DRMO, where applicable. If excavated soils from both the Building 35 and DRMO areas were staged on the Alert Apron at the same time, and disposed of simultaneously, this should be mentioned, along with the respective individual soil volumes.

IT Response:

Section 2.5 has been edited to discuss DRMO stockpiles only and includes DRMO area soil quantities in tons. Appendix E, Section 4.0 has been revised accordingly.

Specific Comments

1. Section 1.2, page 1-4. This section should include the sources of the site-specific cleanup goals and the state-recommended cleanup criteria that were driving the interim remedial action.

IT Response:

IT has included a reference in Section 1.2 to the New York Department of Environmental Conservation, January 24, 1994, "Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels," HWR-94-4046 (TAGM 4046) and the "Remedial Alternatives Development and Screening Report," Ecology and Environment, Inc. 1996, as a sources of state-recommended and site-specific cleanup criteria for the DRMO area IRA.

2. Section 2.4, page 2-5. The laboratory method used throughout the removal action for PCB analysis (USEPA Method SW-846 8081) is not a current method. PCB analysis should now be conducted using Method 8082. In a deviation from the general use of Method 8081, the logs for samples collected on the Alert Apron (Appendix A) indicate that these samples were analyzed using Method 8082. This should be noted in Section 2.4.

IT Response:

The EPA promulgated Update III to SW-846 methods in June of 1997 which included replacement of Method 8081 with 8082 and 8081. IT's subcontracted laboratory, Kemron Environmental Services, required 6 months to begin using the new method in order to purchase new equipment, develop SOPs, etc. In the meantime, the DRMO sampling program was completed in 1997 using 8081. In 1998, IT was directed to sample the alert apron in association with the DRMO project and all samples were analyzed by Kemron using Method 8082. IT will note the method change in Section 2.8, "Alert Apron Sampling and Cleanup."

3. Section 2.4, page 2-6. Contrary to the statement in this section, excavation depths are not included in Figure 2. Revise Figure 2 accordingly.

IT Response:

Excavation depths are shown in tables in the upper right hand corner of Figures 3 and 4. Since all excavation bottom samples were collected at the base of the excavation, excavation depths are the same as sample depths shown in the tables titled "Confirmatory Soil Sample Information, PCB Results" in Figures 3 and 4. Figure 6 presents final excavation lateral limits. The text in Section 2.4.1, page 2-6, has been revised accordingly.

4. Section 2.5, page 2-6. The information in this section conflicts with information provided in other sections of the report. Several inconsistencies (number of soil stockpiles varies within this section, and the volume/weight given in earlier sections) indicate that the information regarding the volume of excavated soil does not pertain to the DRMO area, but possibly to the Building 35 area, or the combination of both areas. The section should be revised.

IT Response:

Section 2.5 has been revised accordingly.

5. Section 2.5.1, page 2-7. Since all soil excavated at the DRMO site appears to have been non-hazardous, the sample hazardous waste manifest is not necessary and should be removed from Appendix D.

IT Response:

The sample hazardous waste manifest has been removed from Appendix D.

6. Section 2.6.1, page 2-7 and 2-8. The text breaks from page 2-7 to 2-8 and should be revised/replaced as appropriate. In the reference to the topsoil analytical results the word 'results' should be replaced by 'analysis'.

IT Response:

Section 2.6.1 has been removed from the text and grouped into Section 2.6, "Site Restoration."

7. Section 3.1, page 3-1. The number of borings indicated in this section is in disagreement with the number given in the executive summary (page ES-2). Please correct this discrepancy.

IT Response:

The Executive Summary has been corrected.

8. Section 3.1, page 3-1. The description of the intrusive investigation of the DRMO area should be revised to indicate the fact that at several locations, samples were collected using an excavator (Appendix A, DRMO Area Exploratory Borings Sample Collection Logs). As indicated by the visual classification logs (Appendix A), the backhoe samples were collected two and three days before the Geoprobe samples. This information should be included in the report.

IT Response:

The Section 3.1 text has been revised to include this additional information.

9. Section 3.1, page 3-1. In the last paragraph on page 3-1, the report states that the analytical results for all borings were below the site-specific cleanup goals established for the DRMO area. While this is correct, several samples (borings EB-47, -51, -53) greatly exceeded the State-Recommended Soil Cleanup Objectives for PAH compounds. These results should be discussed in the report especially since the contamination appears to increase with the depth and was highest at seven feet below ground surface, closest to the level of groundwater. The report should explain why these results were not evaluated against the State-Recommended cleanup objectives and whether additional actions are/were considered for this part of the DRMO area. The sampling logs and boring classification sheets do not include any

observations of groundwater level or observed contamination. Any available information regarding groundwater level, observed contamination (e.g., PID screening results), etc., should be included in the report.

The report should also discuss potential or confirmed up gradient sources of PAH contamination. Investigations conducted during the Interim Remedial Action at the nearby Coal Yard Storage Area (IT 1998) documented widespread PAH contamination of Rainbow Creek sediments that may be related to the PAH contamination detected during the Geoprobe investigation at the DRMO area. Potential up gradient sources of contamination in the area are indicated in the T-9 Storage Area AOC (Law 1996).

IT Response:

IT reviewed PAH contamination from the 27 DRMO area borings by evaluating benzo(a) pyrene since it was the parameter that most frequently exceeded state cleanup goals. Benzo(a) pyrene exceeded the state cleanup level in 40 out of 128 samples. While the concentration of benzo(a) pyrene increased with depth in boring 47, this trend was not repeated in the remaining 26 borings throughout the DRMO. Generally, benzo(a) pyrene (PAH) contamination was scattered throughout the DRMO with the most exceedences of the state cleanup level occurring within the upper 3 feet of soil. Similar PAH contamination was found in the sites adjacent to the DRMO Area including the Coal Storage Yard and Building 35 Areas.

Table 3.2-2 in Appendix E provides a side-by-side comparison of soil boring results with state-recommended cleanup levels. Section 3.1 of the text has been revised to list which results exceeded state-recommended cleanup levels for both PAHs and metals.

Exploratory boring result tables and associated sample locations were sent to federal and state regulatory agencies in November 1997 and January 1998 after completion of borings. These tables were then combined, edited, and formatted by IT to create the various tables in the final closeout report (Appendix E). Cleanup standards listed in Table 3.2-2 under column heading "State Recommended Cleanup Level" (TAGMs) were used for screening purposes to flag contaminants requiring further evaluation of their need for cleanup. Further evaluation included comparison to site-specific cleanup goals, regional background levels, and an evaluation of a contaminant's pervasiveness. Following evaluation of the soil boring data by the USEPA, New York State Department of Environmental Conservation (NYSDEC), United States Army Corps of Engineers (USACE), and Air Force Base Conversion Agency (AFBCA), it was agreed that no excavation was required in the DRMO exploratory boring area.

As reported in the Sample Collection Logs and Visual Classification of Soils Logs included in Appendix E, no visible contamination was encountered during exploratory boring sample collection activities.

10. Section 3.1, page 3-1. The report should include a discussion of the metals results that exceeded the site-specific cleanup goals to allow for an evaluation of the significance of the inorganic exceedences.

IT Response:

Table 3.2-2 in Appendix E provides a side-by-side comparison of soil boring results with state-recommended cleanup levels. Section 3.1 of the text has been revised to discuss which results exceeded state-recommended cleanup levels.

11. Appendix B The caption of Photo No. 1, which presents pre-existing conditions at the DRMO site, appears to give the wrong date since Photo No. 2, with an earlier date, presents excavated ordnance items. Please correct as appropriate.

IT Response:

The ordnance items shown in Photo 2 were discovered by IT's UXO technicians during a surface sweep of the proposed excavation areas prior to initiating any intrusive activities. The dates shown in the photos are correct.

12. Appendix E, all results tables. Providing a complete reference, identify the documents that contain the site-specific cleanup levels and the New York State-Recommended Cleanup Objectives.

IT Response:

The "Table Notes and Qualifier Definitions" page at the end of each table provides a complete reference for documents containing site-specific cleanup levels and the New York State Recommended Cleanup Levels.

FINAL CLOSEOUT REPORT

INTERIM REMEDIAL ACTION
DRMO AREA
FORMER GRIFFISS AIR FORCE BASE
ONEIDA COUNTY, NEW YORK

CONTRACT NO. DACW41-94-D-9013
DELIVERY ORDER NO. 003 mod

PREPARED FOR:

DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
KANSAS CITY, MISSOURI

PREPARED BY:

IT CORPORATION
2790 MOSSIDE BOULEVARD
MONROEVILLE, PENNSYLVANIA 15146-2792

MAY 1999

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A	Field Documentation
B	Site Photographs
C	Safety and Health Phase Out Report
D	Waste Manifest, Certificate of Disposal, and Land Disposal Restriction Form (Example)
E	Quality Control Summary Report

List of Acronyms

Acronym	Title
AASHTO	American Association of State Highway and Transportation Officials
AFBCA	Air Force Base Conversion Agency
BGS	below ground surface
CFR	Code of Federal Regulations
Chemwaste	Chemical Waste Management, Inc.
CQC	Construction Quality Control
CQCP	Contractor Quality Control Plan
CQCSR	Chemical Quality Control Summary Report
CRZ	Contamination Reduction Zone
CSYA	Coal Storage Yard Area
DRMO	Defense Reutilization Marketing Office
EZ	Exclusion Zone
GLDC	Griffiss Local Development Corporation
gpm	gallon(s) per minute
Griffiss	Griffiss Air Force Base
IT	IT Corporation
mg/kg	milligram(s) per kilogram
NYSDEC	New York State Department of Environmental Conservation
OSHA	Occupational Safety and Health Administration
PAH	polynuclear aromatic hydrocarbons
PCB	polychlorinated biphenyl
ppm	part(s) per million
POTW	Publicly Owned Treatment Works
RA	Remedial Action
RAO	remedial action objectives
RC	Rainbow Creek
SAP	Sampling and Analysis Plan
SOW	Scope of Work
SSHO	Site Safety and Health Officer

List of Acronyms *(continued)*

Acronym	Title
SSHP	Site Safety and Health Plan
SVOC	semivolatile organic compound
TAL	Target Analyte List
TCLP	Toxicity Characteristic Leaching Procedure
µg/wipe	microgram(s) per wipe
µg/100 cm^2	microgram(s) per 100 square centimeters
UXO	Unexploded Ordnance
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

List of Photographs

Photograph	Title
1	Pre-existing Site Conditions, DRMO Area
2	Selected Ordnance Items, DRMO Area
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6	DRMO Area Backfilling
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Executive Summary

This Final Closeout Report details the interim remedial action (RA) activities performed by IT Corporation (IT) at the Defense Reutilization Marketing Office (DRMO) Area located on the former Griffiss Air Force Base (Griffiss), Oneida County, New York. The activities were performed under a modification to Contract No. DACW41-94-D-9013, Delivery Order No. 003 during the period of October 1997 through June 1998.

IT executed this interim RA which included excavation, transportation, and disposal of contaminated soil and debris; unexploded ordnance recovery and disposal; the collection and analysis of confirmatory soil and other environmental samples; the sampling and analysis of exploratory borings within the eastern portion of the DRMO Area; and site restoration compatible with the projected future land use. The following section provides a summary of activities.

In addition to the hazards associated with contaminated soil, historical documentation revealed the potential for another hazard within the DRMO. Unexploded ordnance (UXO) may have been buried within this area in the past. IT utilized two trained UXO technicians to oversee excavation activities within the DRMO. One technician was posted at the excavation inspecting each excavated bucket of soil. If any suspect UXO was identified, the area was cleared and the UXO technician identified the object and determined if the object was active or inert. A second UXO technician was posted at the stockpile area to inspect soils as they were deposited into the stockpiles. Surface and subsurface soil within the DRMO Area containing polychlorinated biphenyls (PCBs) at concentrations greater than the site-specific cleanup goals were excavated, and loaded onto tarped trucks. These soils were stockpiled at the alert apron until the ultimate disposal method, nonhazardous landfilling, was selected based on waste characterization sample results. 5,318 tons of soils were characterized as nonhazardous and transported to Seneca Meadows Inc.'s nonhazardous landfill located in Waterloo, New York. The UXO encountered was drummed and transported to Fort Drum's UXO personnel for ultimate disposal. Post excavation confirmatory soil samples were collected and the results were compared to Air Force cleanup goals and applicable state and federal guidelines. IT submitted the results to the USACE and AFBCA. The AFBCA reviewed confirmatory sample results on a case-by-case basis with the federal and state regulatory agencies. The AFBCA received concurrence from both agencies

before requesting the USACE to direct IT to backfill the excavation. Pre-excavation and post excavation topographic surveys were conducted to record the lateral extent and depth of the final excavation. Clean backfill material, approved by the U.S. Army Corps of Engineers (USACE), was placed in the excavation and compacted to bring the excavations back to approximate preconstruction grades. The eastern portion of the DRMO site was not previously characterized, therefore IT conducted an intrusive investigation by completing 27 borings and sampling selected subsurface intervals at each boring. The PCB results were below the site cleanup goals for all intervals.

1 Introduction

This Final Closeout Report has been prepared by IT Corporation (IT) for the U.S. Army Corps of Engineers (USACE), Kansas City District. This report presents a summary of the activities completed at the DRMO Area located on the former Griffiss Air Force Base (Griffiss), in Oneida County, New York. This work was performed under a modification to the Preplaced Remedial Action Contract No. DACW41-94-D-9013, Delivery Order No. 003 from October 1997 to June 1998. The report has been prepared using a chronological format that spans the project from mobilization to demobilization. The report includes a description of the following activities or phases of work:

- Mobilization
- Site preparation
- DRMO remediation
- Water collection, treatment, and discharge
- Post excavation confirmatory sampling
- Waste characterization and disposal
- Site restoration
- Heavy equipment decontamination
- Investigative sampling and analysis
- Topographic survey and as-built drawing preparation
- Final inspection and demobilization.

Section 2.0 of this Final Closeout Report provides a chronological overview of the interim remedial action (RA) performed. Section 3.0 describes the investigative sampling performed in the DRMO Area. Section 4.0 describes the results of the final inspection and the demobilization activities. Section 5.0 summarizes the topographic survey documentation of the initial site grade, extent of excavation, and restoration of grade. Section 6.0 summarizes health and safety practices which were followed and any incidents which were recorded. Section 7.0 presents conclusions and recommendations pertaining to this interim RA and remedial investigation. The appendices to the Final Closeout Report contain the field work documentation, photographs, analytical data, and examples of waste manifests generated during the project.

1.1 Site Description and Background

Griffiss is located in Oneida County in central New York State approximately 50 miles northeast of Syracuse in the city of Rome. The DRMO Area is located in the southern industrial portion of the base and is presented in Figure 1. The DRMO site is located just to the east of Building 35 and is bordered to the north, west and south by Rainbow Creek.

The topography is generally flat with approximately 3 to 4 feet of relief over the sites. The surface water drainage from this area enters Rainbow Creek, which flows to the northeast ultimately draining into Six Mile Creek.

The DRMO Area was used as a salvage/storage yard. Various contaminants were present with the primary contaminant of concern being polychlorinated biphenyls (PCBs). Semivolatile organics and metals contamination were also present.

1.2 Remedial Action Objectives

Previous investigations of the DRMO Area (Pre-closure Site Sampling and Analysis Program) conducted by Parsons Engineering Science, Inc. and OHM Remediation Services Corp. in 1997, revealed high concentrations of contaminants in surface soil compared to state cleanup levels as published in the New York Department of Environmental Conservation, Jan. 24, 1994, (TAGM)"Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels," HWR-94-4046 and site specific cleanup goals established in the "Remedial Alternatives Development and Screening Report" Ecology and Environment, inc. 1996.

A historical document search also revealed the possibility that the DRMO Area stored unexploded ordnance (UXO). The removal action objective for this area was to reduce the potential exposure to contaminants by removing and disposing of contaminated soils and any UXO encountered to a predetermined depth.

1.3 Scope of Work

The SOW for the interim RA was comprised of the following components:

- Initial survey
- Preconstruction conference
- Mobilization

- Site preparation
- Excavation of contaminated soils and debris
- Stockpiling of contaminated soils
- Removal of UXO at the DRMO
- Confirmatory sampling and analysis of the excavation
- Post excavation survey
- Characterization sampling of stockpiled contaminated soils
- Backfill of excavated areas
- Transportation and disposal of contaminated soils/debris
- Final survey
- Control, collection, treatment, and disposal of accumulated water
- Transportation and disposal of stockpiled contaminated soils
- Intrusive investigation of the DRMO
- Site restoration
- Demobilization
- Preparation of Final Closeout Report
- Project closeout.

IT provided all labor, supervision, equipment, materials, and transportation necessary to perform this interim RA.

1.4 Health and Safety

All work activities completed during this interim RA were performed in accordance with the Site Safety and Health Plan Addendum (SSHP). The SSHP was written to conform with current Occupational Safety and Health Administration (OSHA) guidelines as specified in 29 CFR 1910.120, contract requirements, and IT policies and procedures. The SSHP was prepared specific to the site conditions and to conform with the USACE Safety and Health Requirements Manual, EM385-1-1. The SSHP defined the health and safety requirements and described the protocols to be followed during all work activities and the hazards involved. Upon mobilization and prior to initiating work activities, field personnel read and signed the SSHP and received site-specific field training. All field operations were performed in accordance with the SSHP. The SSHP was developed and enforced by the Safety and Health Manager and implemented by the IT Site Safety and Health Officer (SSHO) for daily operations. A summary of the project in

terms of health and safety practices and incidents is included in the Safety and Health Phase Out Report contained in Appendix C of this document.

1.5 Contractor Quality Control Plan

The Contractor Quality Control Plan (CQCP) presented the overall quality program developed for the interim RA. The program verified, through a system of inspections and tests using scientific and engineering principles and practices, that the interim RA met or exceeded the criteria outlined in the specifications. The program of three phase - Preparatory, Initial, and Follow-up Inspections was developed and implemented to verify that the quality of work was performed in compliance with the specification requirements for all definable features of work. Daily Construction Quality Control reports (CQC) were prepared to document on-going activities including tests performed and test results. The CQCP was implemented by the Quality Control Representative, who was on site during the interim RA to address quality-related issues.

1.6 Field Documentation

The following field documentation was completed, as required, during the interim RA and will presented in Appendix A of the Final Report:

- Inspection Forms (Preparatory, Initial, Final)
- Field Work Variance Forms
- Nonconformance Reports
- Sample Collection Logs
- Visual Classification of Soils
- Geotechnical Sample Results

2 Interim Remedial Action

The interim RA included all activities which were conducted to prepare the site and complete the Remedial Action Objectives (RAO) for the DRMO Area. This section provides a chronological discussion of all activities.

2.1 Site Mobilization and Setup

On 7 October 1997, the IT crew arrived to begin remedial action activities. The support area including the office, break, and decontamination trailers was previously erected during the coal storage yard project. A pre-work conference was held with representatives from the Air Force Base Conversion Agency (AFBCA), USACE, and IT.

The first work activity performed as part of the interim RA was site setup. The primary purpose of site setup was to establish the field facilities necessary to accomplish the interim RA. Site setup activities included:

- Delineating and erecting a temporary perimeter fence around the designated work areas.
- Identifying and designating the exclusion, contamination reduction, and support zones.
- Performing an inventory and inspection of equipment and materials, including health and safety related items, to verify readiness to perform the interim RA.

2.1.1 Erosion and Sedimentation Control Structure Installation

Erosion and sedimentation controls included installation of silt fencing, hay bales, mulching, and seeding.

Silt fence was installed as required, down gradient of all areas to be disturbed prior to any earth moving activities.

The gradual slope of the areas and the self-containing nature of the excavation eliminated the need for erosion control until the site restoration phase. During the backfilling and topsoil application phase, hay was used as mulch until grass seed germinated in the disturbed areas.

2.1.2 Protection of Site Features and Utility Markout

A utility markout was performed by both the base caretaker and representatives of Niagara Mohawk Power to locate known buried utilities prior to excavation. Digging permits or "Work Clearance Requests" were completed by the AFBCA and provided to IT for review prior to excavation. Utilities identified included steam lines, sanitary and storm sewer lines, water lines, and live electrical lines. Utility locations were marked on the ground surface with fluorescent paint.

Excavation around monitoring wells, building foundations, roadways, and storm sewer manholes was done to maintain the structural integrity of these features. Well heads and manholes were marked out with caution tape.

Equipment operators were briefed daily on the locations of known site features which needed to be protected and excavation plans were designed to maintain their integrity.

2.1.3 Construction of Equipment Decontamination Pads

IT utilized equipment decontamination pads which were constructed as part of the CSYA project. One decontamination pad was located along Ellsworth Avenue between the Building 35 and DRMO Areas while the other was located at the stockpile management area. Decontamination was accomplished using a high pressure washer with water from the Griffiss public water supply.

2.1.4 Dust Control

Water was applied as needed to prevent dust from generating from the excavation area. The pavement was swept as often as necessary to control the spread of dust/debris.

2.2 DRMO Area Remediation

The RAO for the DRMO Area was met by removing contaminated soils and UXO using a mass excavator and backfilling the excavations with clean fill. The USACE SOW included drawings showing the lateral limits of excavation and defined the groundwater table as the maximum vertical limit of excavation. The soils were excavated by a tracked mass excavator. IT subcontracted on-site trucking to transfer soil from the DRMO Area to the soil staging area located on the alert apron. Initially, the soils were excavated to the lines and grades required in the SOW.

Confirmatory samples were collected on 50-foot grid centers (Figure 2), after the area had been excavated to the required depth. Once confirmatory sample results were reviewed and it was determined that a sample had contaminant concentrations (primarily PCBs) that exceeded the cleanup levels, or as directed by the USACE, additional material was removed. Several variances from this SOW were initiated by the USACE directing IT to excavate beyond the limits defined in the SOW. These variances are described in the following sections.

A total of 5,318 tons of soil were excavated and removed from the DRMO Area excavation.

2.2.1 Initial Soil Excavation (Round 1) and Confirmatory Sampling Results

The initial round of excavation removed surface soils up to a maximum depth of 7 feet BGS across the area.

Confirmatory sampling was performed as the excavation activities were completed. The initial round of 30 soil samples (including QA samples) was submitted to the laboratory and analyzed for confirmatory soil parameters listed in Section 2.5. The analytical results were received from the contract laboratory and were reviewed, formatted, and forwarded by IT to the AFBCA, and USACE.

Review of confirmatory sampling results indicated PCB concentrations exceeded site-specific cleanup goals in 2 out of 18 grid locations. The USACE directed IT to perform additional excavation in these locations based on the sample results. Figure 3 presents sampling and additional excavation areas. Analytical results including positive detects for all parameters are included in the table of Appendix E.

2.2.2 Additional Excavation (Round 2) and Confirmatory Sampling Results

Excavation beyond initial limits occurred in one additional round. The round consisted of excavation, confirmatory sampling, review of analytical results, and receipt of directive from the USACE.

After review of Round 1 data the USACE directed IT to expand Grid 2 to the southern fenceline and Grid 28 the north due to elevated PCB concentrations in the sidewalls. Areas of additional excavation are presented in Figure 4.

After additional excavation, 2 samples were taken in Round 2. The results indicated that Grid 2 and Grid 28 in-situ soils were below the site specific cleanup goals. At this time, all in-situ soils in the DRMO Area were below the site specific cleanup goals for PCBs and the USACE directed IT to backfill the excavation.

2.2.3 UXO Removal

IT had two trained UXO technicians oversee all excavation activities in the DRMO Area. As required by the SOW, both technicians were graduates of the U.S. Naval School of Explosive Ordnance Disposal in Indian Head, Maryland. One technician was stationed at the excavation area at a location which allowed him to inspect each excavator bucket of soil during load out activities. The other technician was stationed at the stockpile area to inspect each truck load of soil as it was deposited in the stockpiles.

If either technician suspected any debris of being UXO, the technician notified all personnel in the vicinity by radio to clear the area. At that time, the technician would identify the debris and determine if it was in fact UXO. If UXO was detected, the technician would determine if the material was armed. No armed UXO was discovered during the excavation activities. However, the following UXO was recovered:

(4) - 30mm cartridges
(188) - impulse cartridges
(4) - 30mm projectile casings
(1) - 105mm projectile casing
(2) - 30mm TP projectiles
(1) - 50-caliber cartridge
(1) - pop flare casing
(1) - 40mm projectile casing
(2) - 308 caliber cartridges
(1) - BOU -33 tail section

The above listed UXO was placed in a 55-gallon drum and transported to the Fort Drum UXO detachment for disposal.

2.3 Water Collection, Treatment, and Discharge

All water generated during the DRMO Area excavations, dewatering, and decontamination activities was collected in a 20,000 gallon storage tank. Because approximately 3,000 gallons of water were collected, IT was permitted to store this water to be combined with water that will be generated during the implementation of Delivery Order 008.

2.4 Post Excavation Confirmatory Sampling

The objective of the post excavation confirmatory sampling in the DRMO Area was to collect sufficient data to verify and document that cleanup criteria in remaining surface soil had been met. Field sampling activities were performed to achieve this objective as described in the SAP. All confirmatory samples were labeled with a uniform sample identification number. An example of an identification number follows:

- DRMO-CS-01-SWA (DRMO-Confirmatory Sample Grid 01, excavation sidewall, Round 1).

The suffix EB1 was revised to EB2 and SWA was revised to SWB for round two samples.

All confirmatory samples were analyzed for the following parameters:

- Volatile Organic Compounds (VOCs) (U.S. Environmental Protection Agency [USEPA] Method 8260A)
- Semivolatile Organic Compounds (SVOCs) (USEPA Method 8270B)
- Polynuclear Aromatic Hydrocarbons (PAHs) (USEPA Method 8310)
- Pesticides/PCBs (USEPA Method 8081)
- Target Analyte List (TAL) Metals (USEPA Method 6000/7000 Series)
- Percent Solids.

A Chemical Quality Control Summary Report (CQCSR) is provided in Appendix E. This report summarizes analytical results and discusses the data quality evaluation of all confirmatory soil sampling results.

2.4.1 DRMO Area Sampling

Confirmatory samples were collected from the uniform 50-foot grid centers noted in Figure 2. Sidewall samples were collected 0 to 6 inches BGS from the top of the sidewall where the grids intersected the excavation perimeter. Bottom samples were collected from 0 to 6 inches below the excavation bottom.

Additional excavation and confirmatory sampling were required after initial post excavation sample results were reviewed. Sample locations and post excavation PCB results for each additional excavation are presented in Figures 2 through 4. Final limits of excavation are shown on Figure 6. Appendix E presents all sampling results.

2.5 Waste Characterization and Disposal

A total of 19 soil stockpiles (approximately 250 cubic yards of material per pile) were accumulated during the interim RA. To determine disposal requirements, composite sampling of each stockpile was performed in the staging areas. A representative sample of the material in each stockpile was obtained utilizing a clean stainless steel trowel. Sampling equipment was decontaminated between stockpiles to minimize the potential for cross contamination. Each of the soil stockpiles was analyzed for the following parameters:

- VOCs (USEPA Method 8260A)
- SVOCs (USEPA Method 8270A)
- PCBs/Pesticides (USEPA Method 8081)
- TAL Metals (USEPA Method 6000/7000 Series)
- PAHs (USEPA Method 8310)
- Herbicides (USEPA Method 8150).

In addition to the above listed parameters, the following suite of parameters was required by the landfill for disposal, but at a reduced frequency:

- Ignitability (USEPA Method 1010)
- Corrosivity (USEPA Method 1110)
- Reactivity (Method 8.3 of USEPA SW-846)

- Toxicity Characteristic Leaching Procedure (TCLP) (SW-846 Method 1311)
- Lead (Method 6010A/3050A).

All of the stockpiles sampled were characterized as non-hazardous waste, non-DOT regulated material. IT procured the services of Capitol Environmental, Inc. to perform the transportation and disposal of nonhazardous soils/concrete contaminated with PCBs. All nonhazardous soil/concrete was profiled and trucked to Seneca Meadows Inc.'s Waterloo, New York landfill for disposal. A total of 5,318 tons of nonhazardous soil was disposed. An example nonhazardous waste manifest is located in Appendix D.

2.6 Site Restoration

IT began site restoration activities by direction from the USACE after the post excavation surveys had been completed. Restoration included placement of clean backfill, topsoil, and revegetation. Lanz Construction, a local borrow source, was selected to provide clean and acceptable backfill material as defined in the USACE SOW. Backfill suitability was verified by chemical and geotechnical analysis results. A representative sample named "Borrow-01" was collected from Lanz Construction's borrow pit located on Rickmeyer Road and submitted during Delivery Order 003 activities. "Borrow-01" Geotechnical Results are included in Appendix A to this report while chemical analysis results are presented in Appendix E under "Miscellaneous Sample Results."

Backfill was spread and compacted in 12-inch lifts to restore the excavation to 4 inches below final grade. Compaction tests were performed throughout the area at a frequency of 1 test per 25,000 square feet per lift. All compaction test results were acceptable (greater than 90 percent Standard Proctor) and are presented in Appendix A.

The USACE SOW indicated that only disturbed areas be topsoiled and reseeded. IT was directed to place topsoil and reseed the entire unexcavated portion of the DRMO Area. Prior to topsoil placement, IT was directed to remove all surface debris to a depth of 4 inches from the entire DRMO Area. IT scarified the entire unexcavated area to a depth of 4 inches and then manually removed and disposed of any debris encountered. IT then placed 4 inches of topsoil over the DRMO Area, seeded, fertilized and mulched the area. Topsoil composition was verified by chemical analysis of sample "Topsoil-01" during Delivery Order 003 activities. Results are presented in the appendices to the QCSR under "Miscellaneous Sample Results."

2.7 Heavy Equipment Decontamination and Sampling Results

All heavy equipment exiting the Exclusion Zone (EZ) was decontaminated if there was a possibility that the equipment was in contact with contaminated soil or sediment. Dump truck beds were decontaminated and wooden side boards removed and replaced if necessary at the end of the day. Decontamination water was collected and transferred to 20,000-gallon frac tanks. Decontamination inspections were performed and documented by the Health and Safety Officer (Appendix C). Post-decontamination equipment wipe samples (Appendix E) were collected from heavy equipment being returned to the vendor if the equipment had potentially been in contact with contaminated soil or sediment. Wipe samples were analyzed for PCBs and results were reported in micrograms per wipe (µg/wipe) (Appendix E). The PCB screening criteria of 10 micrograms per 100 square centimeters (µg/100 cm^2) was used for all equipment sampled. No equipment wipe samples exceeded screening criteria. Decontamination certificates for all equipment are included in the Safety and Health Phase Out Report, Appendix C.

2.8 Alert Apron Sampling and Cleanup

After all activities at the alert apron ceased, the USACE directed IT to sample the sediment within the catch basins to determine if any soils had entered the structures. IT sampled the 4 catch basins at the apron. All samples were analyzed for PCBs by the new SW-846 method 8082 which recently replaced method 8081. The results indicated PCB concentrations above 1 ppm. At the USACE's direction, IT subcontracted a vacuum truck to remove all sediments from the catch basins and drains. Approximately 9 cubic yards of material were removed from the structures and stockpiled. The waste characterization sample WC-79 confirmed that the material is nonhazardous. The material was shipped offsite with non hazardous soils accumulated during Delivery Order 008 activities. The oil water separator connected to the catch basins was pumped out and cleaned by another contractor during October 1998. Sample results, provided to IT by the USACE, for the material removed are included in the Appendices to the QCSR under "Miscellaneous Sample Results."

3 Investigative Sampling

Investigative sampling was performed in the eastern portion of the DRMO Area as defined in the SOW.

3.1 Intrusive Investigation of the DRMO Area

A total of 27 soil borings were placed in the eastern portion of the DRMO as shown on Figure 5. All borings were advanced to the groundwater table using air rotary techniques. Because of the potential for encountering UXO and large cobbles in the surface soils, the initial 3 foot depth was sampled prior to geoprobe activities with an excavator with a UXO technician present. Samples were collected at the following intervals:

- 0 - 1 ft bgs (backhoe)
- 1 - 2 ft bgs (backhoe)
- 2 - 3 ft bgs (backhoe)
- 3 - 5 ft bgs (geoprobe)
- 5 - 7 ft bgs (geoprobe)

Sample Collection Logs and Visual Classification of Soils were completed for each boring (Appendix A). All boreholes were backfilled with drill cuttings upon completion.

Samples were submitted to Kemron for the following analyses:

- VOCs - USEPA Method 8260A
- SVOCs - USEPA Method 8270B
- PAHs - USEPA Method 8310
- Pesticides/PCBs - USEPA Method 8081
- TAL Metals - USEPA Method 6000/7000 Series.

Soil boring analytical results (Appendix E) indicated that all borings were below the site specific cleanup goals established for the DRMO for PCBs and other organic compounds including VOCs, SVOCs, PAHs, and Pesticides. The following metals exceeded site specific cleanup goals including Antimony, Arsenic, Barium, Calcium, and Selenium. The following analytes exceeded state recommended cleanup goals (TAGM 4046) in one or more boring samples:

metals) antimony, arsenic, barium, cadmium, calcium, copper, selenium, and zinc; PAHs) benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene as shown in Table 3.2-2 of Appendix E. While the concentration of PAHs (ie. benzo(a) pyrene) increased with depth in boring 47, this trend was not repeated in the remaining 26 borings throughout the DRMO Area. Generally PAH contamination was scattered throughout the DRMO Area with the most exceedences of the state cleanup level occurring within the upper 3 feet of soil. Simular PAH contamination was found in the sites adjacent to the DRMO Area including the Coal Storage Yard and Building 35 Areas.

Cleanup standards listed in table 3.2-2 under column heading "State recommended Cleanup Level" (TAGMs), were used for screening purposes to flag contaminants requiring further evaluation of their need for cleanup. Further evaluation included comparison to site specific cleanup goals, regional background levels, and an evaluation of a contaminants's pervasiveness. Following evaluation of the soil boring data by the United States Environmental Protection Agency (USEPA), New York State Department of Environmental Conservation (NYSDEC), United States Army Corps of Engineers (USACE), and Air Force Base Conversion Agency (AFBCA), it was agreed that no excavation was required in the DRMO exploratory boring Area.

4 Final Inspection

A final site walk inspection was conducted on 6 August 1998, and was attended by the following individuals:

- William Ebersbach, Resident Engineer
- Brett Gorham (USACE, Quality Assurance Representative)
- Champak Shah (USACE, On-Site Representative)
- Catherine Jerrard (AFBCA, On-Base Environmental Contact)
- Mike McDermott (BRAC Environmental Coordinator)
- Walt Weick (IT, Site Superintendent)

The USACE accepted the DRMO Area as complete at this time.

5 Surveys and As-Built Drawings

Modi Engineering performed three topographic surveys to document existing site conditions, limits of excavation, and final grade. IT prepared three drawings incorporating data collected in these topographic surveys including:.

- Figure 1, Original Site Conditions
- Figure 6, Final Limits of Excavation
- Figure 7, Final Grading

6 Health and Safety Requirements

The health and safety requirements for the project followed the guidelines set forth in the project SSHP. There were no lost time accidents on this project. Documentation of safety and health practices conducted during the project are located in Appendix C in the Safety and Health Phase Out Report.

7 Conclusions

All work was completed under authorized funding, and without a lost time accident, in accordance with the RAO, specifications, and work plans. The site-specific PCB cleanup goals of 10 ppm for subsurface soil and 1 ppm for surface soil were met throughout the site. The site specific cleanup goals were also met for all other organics including: VOCs, SVOCs, Pesticides, and PAHs. The following metals concentrations exceeded Site Specific Cleanup Goals (site background concentrations) including Antimony, Arsenic, Barium, Calcium, Chromium, and Selenium in several locations throughout the site.

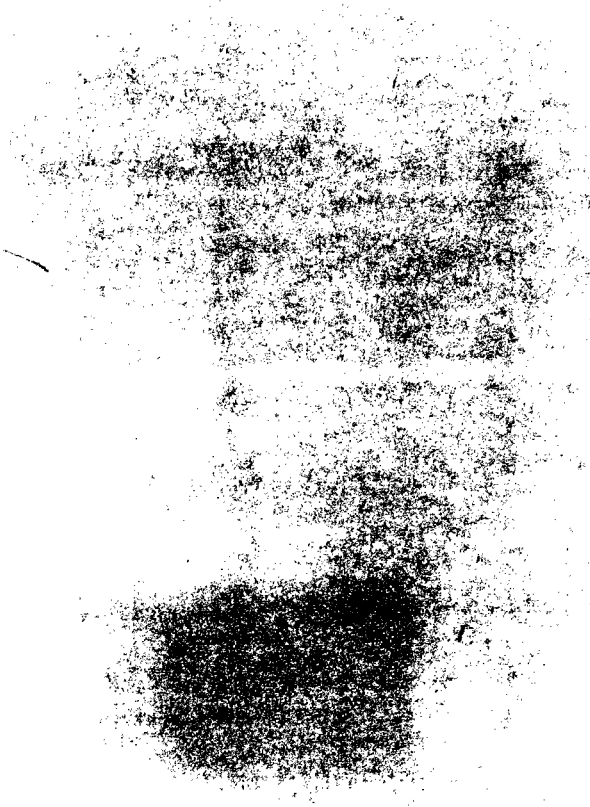


Table 3.4-1
Miscellaneous Sample Listing and QA/QC Cross Reference

Sampling Date	Sample Ids	Matrix	Lab	USACE QA Split Sample ID	Blind Duplicate QC Sample ID	VOCs (8260a)	SVOCs(8270b)	PAHs(8310)	PEST/PCBs(8081)	TAL METALS (6000/7000)	Total lead, TCLP Lead	Rome POTW Discharge Parameters	PEST/PCBs(8080)	PCBs Only 8081	PCBs Only 8082	Herbicides
7/8/97	Borrow-01	Soil	Quanterra			√	√									
7/8/97	Borrow-01 Dup	Soil	Quanterra													√
8/25/97	Topsoil-01	Soil	Kemron			√	√	√	√	√						√
11/17/97	CASE 821B	Wipe	Kemron											√		
11/18/97	CASE 9040B	Wipe	Kemron											√		
11/21/97	Kobelco TLK760	Wipe	Kemron											√		
11/24/97	FRAC-04, Trip Blank	Water	Kemron									√				
12/15/97	SAMSUNG SL150A	Wipe	Kemron											√		
1/29/98	BLD35-RB1	Water	Kemron			√	√		√	√						
2/1/98	SAMSUNG SL150-2	Wipe	Kemron												√	
2/1/98	Komatsu WA380	Wipe	Kemron												√	
2/1/98	Kato HD-900	Wipe	Kemron												√	
5/11/98	CBAA-01	Soil	Kemron												√	
5/11/98	CBAA-03	Soil	Kemron												√	
6/17/98	APRON-01	Soil	Kemron												√	
6/17/98	APRON-02	Soil	Kemron												√	
6/17/98	APRON-03	Soil	Kemron												√	
6/17/98	APRON-04	Soil	Kemron												√	
6/17/98	APRON-05	Soil	Kemron												√	
6/17/98	APRON-06	Soil	Kemron												√	
6/17/98	APRON-07	Soil	Kemron												√	
6/17/98	APRON-08	Soil	Kemron												√	
6/17/98	APRON-09	Soil	Kemron												√	
6/17/98	APRON-10	Soil	Kemron												√	
6/22/98	CBAA-04	Soil	Kemron												√	
6/22/98	CBAA-05	Soil	Kemron												√	
8/6/98	WC-79	Soil	Kemron			√	√	√		√	√		√			
10/6/98	GLD63894OW	Water	LabNet							√			√			
10/27/98	GSC63894SP	Sludge	LabNet							√			√			

DRMO Area Topsoil Analytical Results
(Sampled During Delivery Order 003 Activities)

Alert Apron Residual Soil PCB Sampling Results

~~Corrected~~
JG

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

24 MAR 2000

MEMORANDUM FOR Mr. Bob Wing
United States Environmental Protection Agency
Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

Mr. Sal Ervolina
New York State Department of Environmental Conservation
Division of Hazardous Waste Remedial Action
50 Wolf Road
Albany, NY 12233-7010

FROM Michael F. McDermott
AFBCA/DA – Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Parcel F1 schedule

1. Attached is the revised schedule for the sites located in Parcel F-1.

2. Please advise if you have any comments or concerns.

Michael F. McDermott
BRAC Environmental Coordinator

RECEIVED
BUREAU OF EASTERN
REMEDIAL ACTION

6. PROJECTED SCHEDULE FOR RESPONSE/CORRECTIVE ACTION AND OPERATION AND MAINTENANCE REQUIREMENTS (F1 FOSET)

REVISED 15 March, 2000

6.1 Schedule for AOI Site 16:

- 6.1.1 Draft Expanded Site Investigation Report completed - March 1998
- 6.1.2 Regulator concurrence on site closure – September 1998

6.2 Schedule for AOC Site SS-17:

- 6.2.1 Remedial Investigation completed - December 1996
- 6.2.2 Final Supplemental Investigations Report - March 1998
- 6.2.3 Draft Proposed Plan Issued - September 2000
- 6.2.4 Final Proposed Plan Issued - February 2001
- 6.2.5 Public Notice on Proposed Plan - March 2001
- 6.2.6 Records of Decision Completed - April 2001

6.3 Schedule for AOC Site SS-23:

- 6.3.1 Remedial Investigation completed - December 1996
- 6.3.2 Interim Removal Action completed – December 1999
- 6.3.3 Draft Proposed Plan Issued – April 2001
- 6.3.4 Final Proposed Plan Issued – August 2001
- 6.3.5 Public Notice on Proposed Plan – September 2001
- 6.3.6 Records of Decision Completed – October 2001

6.4 Schedule for AOC Site SS-25:

- 6.4.1 Remedial Investigation completed - December 1996
- 6.4.2 Interim Removal Action completed – December 1999
- 6.4.3 Draft Proposed Plan Issued – April 2001
- 6.4.4 Final Proposed Plan Issued – August 2001
- 6.4.5 Public Notice on Proposed Plan – September 2001
- 6.4.6 Records of Decision Completed – October 2001

6.5 Schedule for AOC Site SS-33:

- 6.5.1 Remedial Investigation completed - December 1996
- 6.5.2 Interim Removal Action completed – August 1999
- 6.5.3 Draft Proposed Plan Issued – April 2001
- 6.5.4 Final Proposed Plan Issued – August 2001
- 6.5.5 Public Notice on Proposed Plan – September 2001
- 6.5.6 Records of Decision Completed – October 2001

6.6 Schedule for AOC Site SD-52:

- 6.6.1 Remedial Investigation completed - December 1996
- 6.6.2 Feasibility Study Complete - July 2001
- 6.6.3 Draft Proposed Plan Issued - October 2001
- 6.6.4 Final Proposed Plan Issued - January 2002
- 6.6.5 Public Notice on Proposed Plan - February 2002

6.6.6 Records of Decision Completed - April 2002
6.6.7 Start Remedial Actions - May 2002
6.6.8 Final Remediation In-Place - September 2003

JG

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

22 MAR 2000

This is a replacement letter for the letter that was issued on march 20, 2000.

Subject: Small Arms Range Hardfill (LF-49A)

ı Greco
rk State Department of Environmental Conservation
ıf Eastern Remedial Action
Road
NY 12233-7010

'ocze
tes Environmental Protection Agency
cilities Section
vay, 18th Floor
NY 10007-1866

Rome, NY 13441-4105

SUBJECT: OTH-661 at the Barge Canal Facility

1. The attached memorandum for record was issued on 11 February 2000 to summarize information regarding a portion of the Barge Canal Facility known as OTH-661. Based on requests from the NYSDEC and the USEPA, the site was scheduled for debris removal and confirmatory sampling under the Area of Interest program. The attached background information was presented after the site was proposed for sampling. Additional clarification has been provided by AFBCA concerning the transformer referenced in the memorandum for record. The transformer was an active transformer that was installed and subsequently removed by the Air Force. The oil was tested for PCBs and the results were 6.4 mg/kg for PCB 1260. There was no evidence of leakage from the transformer.

2. AFBCA Real Estate has verified that the lease between New York State and the Air Force is still in effect. The date for lease termination is unknown. When a date for lease termination is set, the Air Force Caretaker contractor will remove any debris present.

3. Since the site has been sampled for pipeline closure and there is no evidence of any environmental release, AFBCA proposes to delete the site from the environmental program. The status will be modified to Covered Under Other Programs, and New York State will specify any requirements that the Air Force must meet for lease termination.

RECEIVED
MAR 2 3 2000
BUREAU OF EASTERN
REMEDIAL ACTION

4. If you have any questions or further concerns regarding this site, please contact Cathy Jerrard at 315-330-2275.

Michael F. McDermott
BRAC Environmental Coordinator

Atch:
Memorandum for Record OTH-661
Location figure, OTH-661

cc: Robert Pender, USACE – Kansas City
Thomas Ferraro, Ecology and Environment

OTH-661 Memorandum for Record

Background Information
C. Jerrard
2/11/00
Air Force Base Conversion Agency

The property associated with OTH-661 is owned by New York State and leased to the Air Force. The lease is still in force with an expiration date of June 2010.

The area was used as an unauthorized dump site by area residents and identified as a problem by the Air Force in 1994. A cleanup was performed in 1995 in anticipation of lease termination, due to the realignment of Griffiss Air Force Base. Debris was removed and the area was regraded by Air Force Civil Engineering personnel. *Keep Out* signs were posted, and barricades were placed on the access routes. An inspection was performed by Robert Edic and Frederick Sololowski, New York State Canal Corporation. At the request of the New York State Canal Corporation personnel, additional barricades were brought in to prevent access, and a transformer was removed and tested.

In addition to the debris cleanup, pipeline closure was required and consisted of the removal of 1200 feet of 12" jet fuel pipeline, soil sampling along the pipeline and subsequent backfill and regrading of the area. NYSDEC Spill number 9609346 was primarily associated with the removal of the Barge Canal Pipeline and was conditionally closed on December 22, 1997 by the NYSDEC Spills program. A construction permit was obtained from the New York State Barge Canal Authority for the construction activities performed during pipeline closure.

The debris that has been dumped in the area since the previous projects were completed will be removed by the AFBCA caretaker contractor prior to termination of the lease.

CK1S030A

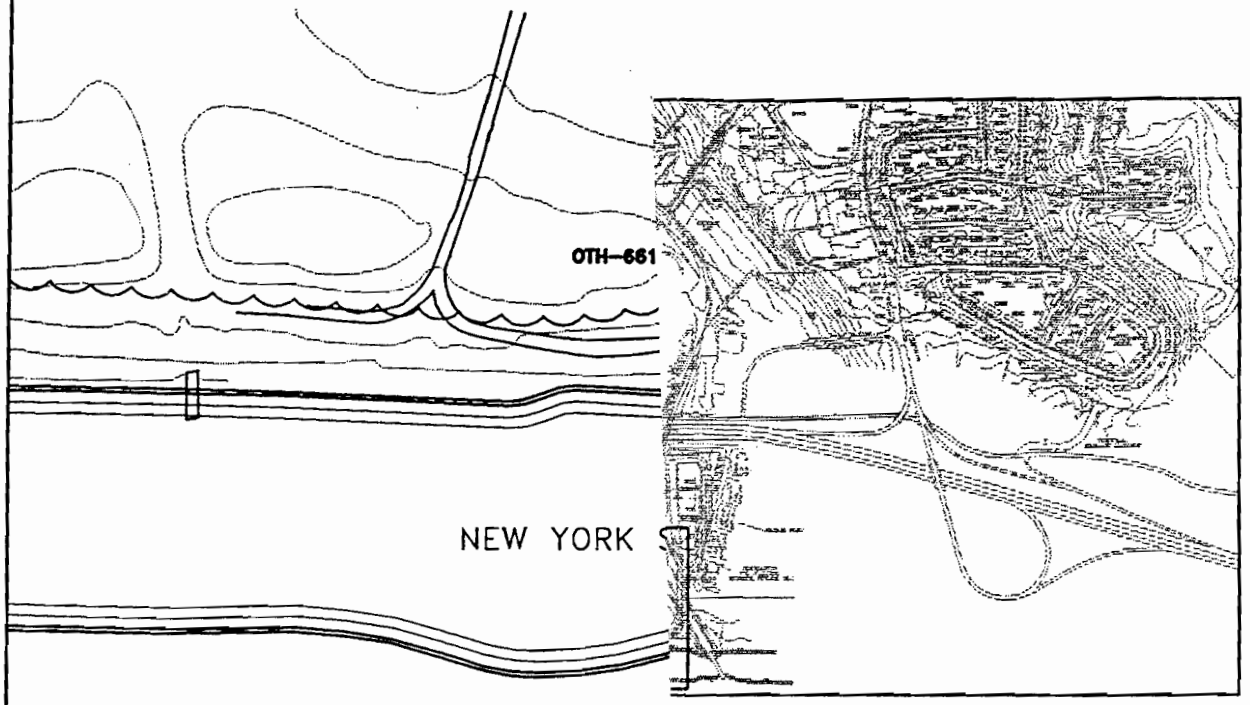


LEGEND

ESI ADDENDUM PROPOSED NEAR-SURFACE SOIL SAMPLE LOCATION (SEE NOTE)

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

TOPOGRAPHIC CONTOUR LINE



SITE LOCATION

L NEAR-SURFACE SOIL SAMPLE LOCATIONS
ENTIFIED IN THE FIELD PRIOR TO DEBRIS REMOVAL.

SCALE IN FEET

100 200 300

ecology and environment

'RE 3-9 ESI ADDENDUM
PROPOSED SAMPLE LOCATIONS
OTH-661

M. Chen

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518) 485-8404
Website: www.dec.state.ny.us

Environmental Conservation 30 YEARS
John P. Cahill
Commissioner

MAR 21 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Draft Final Records of Decision for Landfills 2/3, 4, 5 & 7;
Griffiss Air Force Base (Site ID No. 633006)

The New York State Department of Environmental Conservation (NYSDEC), in conjunction with the New York State Department of Health (NYSDOH), has reviewed the referenced Records of Decision (RODs) and find each to be acceptable.

The final RODs should include a statement indicating the NYSDEC's acceptance, and signed copies should be sent to the USEPA Region II Administrator for signature.

If you have any questions or comments on this matter, please contact Mr. Sal Ervolina, of my staff, at (518) 457-4349.

Sincerely,

Michael J. O'Toole, Jr.
Director
Division of Environmental Remediation

cc: R. Caspe, USEPA
R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Swedowski, Reg. 6, Watertown
R. Joyner
L. Hansak
S. Dimeo

NEW YORK STATE CENSUS 2000
BE PART OF THE COUNT
SEA PARTE DE LA CUENTA!

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

MAR 20 2000

MEMORANDUM FOR Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

Douglas Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

FROM AFBCA/DA – Griffiss
153 Brooks Road
Rome, NY 13441-4105

RECEIVED
MAR 2
BUREAU OF EASTERN
REMEDIAL ACTION

SUBJECT: Administrative Record

1. The enclosed CDs contain the Griffiss Administrative Record.

2. I have also enclosed a list of items that were evaluated and determined not to be appropriate Administrative Record documents. These documents have been removed and, therefor will not appear on the enclosed CDs.

3. Should you have any questions or concerns, please advise.

Michael F. McDermott
BRAC Environmental Coordinator

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

20 MAR 2000

MEMORANDUM FOR Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

Douglas Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

FROM AFBCA/DA – Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Small Arms Range Hardfill (LF 49A)

1. The attached memorandum for record was issued on 11 February 2000 to summarize information regarding a portion of the Barge Canal Facility known as OTH-661. Based on requests from the NYSDEC and the USEPA, the site was scheduled for debris removal and confirmatory sampling under the Area of Interest program. The attached background information was presented after the site was proposed for sampling. Additional clarification has been provided by AFBCA concerning the transformer referenced in the memorandum for record. The transformer was an active transformer that was installed and subsequently removed by the Air Force. The oil was tested for PCBs and the results were 6.4 mg/kg for PCB 1260. There was no evidence of leakage from the transformer.

2. AFBCA Real Estate has verified that the lease between New York State and the Air Force is still in effect. The date for lease termination is unknown. When a date for lease termination is set, the Air Force Caretaker contractor will remove any debris present.

3. Since the site has been sampled for pipeline closure and there is no evidence of any environmental release, AFBCA proposes to delete the site from the environmental program. The status will be modified to Covered Under Other Programs, and New York State will specify any requirements that the Air Force must meet for lease termination.

4. If you have any questions or further concerns regarding this site, please contact Cathy Jerrard at 315-330-2275.

Michael F. McDermott
BRAC Environmental Coordinator

Atch:
Memorandum for Record OTH-661
Location figure, OTH-661

Cc: Robert Pender
Thomas Ferraro

OTH-661 Memorandum for Record

Background Information
C. Jerrard
2/11/00
Air Force Base Conversion Agency

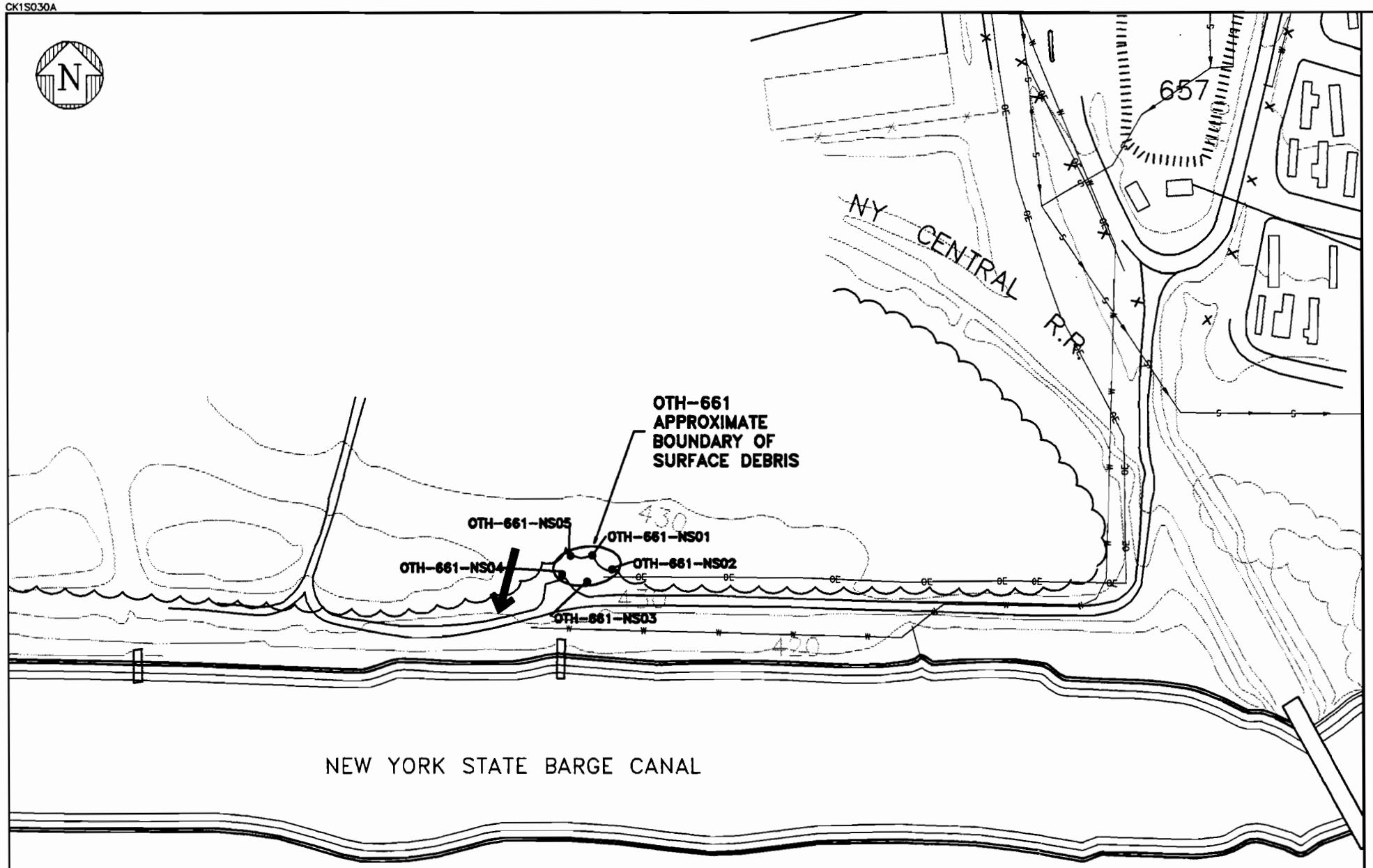
The property associated with OTH-661 is owned by New York State and leased to the Air Force. The lease is still in force with an expiration date of June 2010.

The area was used as an unauthorized dump site by area residents and identified as a problem by the Air Force in 1994. A cleanup was performed in 1995 in anticipation of lease termination, due to the realignment of Griffiss Air Force Base. Debris was removed and the area was regraded by Air Force Civil Engineering personnel. *Keep Out* signs were posted, and barricades were placed on the access routes. An inspection was performed by Robert Edic and Frederick Sololowski, New York State Canal Corporation. At the request of the New York State Canal Corporation personnel, additional barricades were brought in to prevent access, and a transformer was removed and tested.

In addition to the debris cleanup, pipeline closure was required and consisted of the removal of 1200 feet of 12" jet fuel pipeline, soil sampling along the pipeline and subsequent backfill and regrading of the area. NYSDEC Spill number 9609346 was primarily associated with the removal of the Barge Canal Pipeline and was conditionally closed on December 22, 1997 by the NYSDEC Spills program. A construction permit was obtained from the New York State Barge Canal Authority for the construction activities performed during pipeline closure.

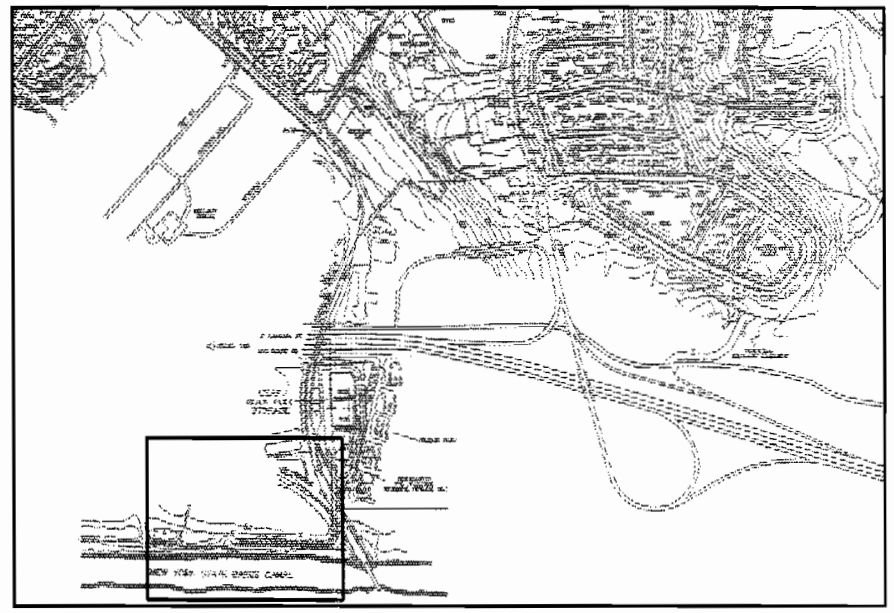
The debris that has been dumped in the area since the previous projects were completed will be removed by the AFBCA caretaker contractor prior to termination of the lease.

CK1S030A



LEGEND

- ESI ADDENDUM PROPOSED NEAR-SURFACE SOIL SAMPLE LOCATION (SEE NOTE)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW
- 420 TOPOGRAPHIC CONTOUR LINE



SITE LOCATION

NOTE:
THE ACTUAL NEAR-SURFACE SOIL SAMPLE LOCATIONS WILL BE IDENTIFIED IN THE FIELD PRIOR TO DEBRIS REMOVAL.

SCALE IN FEET

0 100 200 300

ecology and environment

FIGURE 3-9 ESI ADDENDUM
PROPOSED SAMPLE LOCATIONS
OTH-661

AUTOMATIC CD-ROM LOADING INSTRUCTIONS
Administrative Record

This disk is designed to load automatically. The following instructions are provided to guide you through the autoload process. *(Note: If the autoload procedure does not work, you may load the CD manually, using the instructions found on the inside front cover of the CD-ROM case.)*

1. Place CD in Drive D. (Note: Drive D is assumed to be your CD drive for these instructions.) Wait for on-screen instructions to appear.
2. On the "AR Setup" screen, select **Full**.
3. On the "CD Image Retrieval" screen, select **Continue**.
4. On the "Set Windows Path" screen, select **Continue**.
5. On the "Set Destination" screen, select **Install**.
   — Install to **C:\CDIMAGE**
   — Options: **Install application and system files on local disk**.
6. On the "Set CD-ROM Drive" screen, click "continue" if your CD drive is D:, or type in CD drive letter and select **Continue**.
7. On the "Setup Successful!" screen, select **OK**.
8. On the "CD Image Retrieval" screen, close file box by clicking X in upper right corner.
9. Program will load.
10. Setup is complete. Select **OK**.
11. Double click the icon "DB search" and the DB/Textworks software starts.
12. The InMagic installation will be in progress. If you have an existing C:\adminrec directory, click "yes" to use the existing folder. The installation will write over the existing adminrec directory. If you have an existing base directory with the same name, it will also be overwritten. A base folder with a different name, if present, will be left as is.
13. Click "OK" when the InMagic installation is complete.
14. Go to "File" and select "User Preferences." Go to "Imaging," select "Drive D" (or your CD drive, if other than D) and then click "OK."

Refer to the User Manual or the Readme2 file on this disk for INMAGIC® DB/TextWorks™ searching instructions.

CD-ROM LOADING INSTRUCTIONS
Administrative Record

1. Introduction

These instructions are for the installation and use of the CD-ROM disk set containing the Administrative Record (AR) for your installation, which will be referred to as "Basename." Your disk set will contain at least two disks, with additional disks (2 through *n*) for bases with large ARs.

If you do not have a printed Users Manual, the Readme2.doc (MS Word) or Readme2.txt file on this disk will provide details on searching and sorting documents in the AR file using INMAGIC® DB/TextWorks™. You can access the Readme2.txt file using Notepad.

These instructions should be following in the order presented.

2. Disk Composition

The disk set contains four items: a database, images of all AR documents, and two software viewing systems. The database contains fields of information on all documents in the AR. The image can be found using one of the two software search engines. The primary search engine for the disks is INMAGIC® DB/TextWorks™. This software is loaded at an installation and will be used to update the AR file as documents are added. The CD-ROM disks contain a "run-time" version of the software that is license free with no restrictions on distribution or computer installation. KODAK® OPTISTAR™ is the secondary search engine loaded on the image disks. This software is also license free and can be used at no charge.

3. INMAGIC® DB/TextWorks™ Software

This software is loaded on the first disk and is the primary search engine for finding and viewing documents in the AR file, which documents the cleanup efforts at the installation. The database contains records with multiple fields that provide information on each document in the AR. The data fields are extensive and any search using these fields is designed to find the desired records. (See Readme2 for a listing and description of the fields.) The images of the documents are not searchable; they can only be viewed and printed.

4. KODAK® OPTISTAR™ Software

This software is loaded on the image disks (2 through *n*) and is the secondary search engine. After selecting the desired records, the user views the records without conducting a search sequence with the primary search software. Additionally, if the primary software is not loaded onto the local hard drive (this process is explained in Section 5.2), then this search engine will be used to view all documents.

5. Loading the Software

There are two options to load the disk system for viewing, based on the user's equipment configuration. The recommended process, given adequate hard drive space, is to install the information from "Disk 1" to a hard drive and then place the image disk(s) ("Disk 2 through *n*") into the CD drive. The second option would involve minimal use of hard drive space, but will require extensive use of the CD-drive.

5.1 First Option (recommended)

5.1.1 Windows 3.1 users

The process involves placing the database, table of contents, and the first record (EPA Index) on the hard drive. The following instructions assume that the hard drive is "C," and the CD drive is "D." The instructions would need to be adjusted if the computer setup is different.

Install the KODAK® OPTISTAR™ search software and icons as follows:

1. Insert Disk 2 into the CD drive.
2. Go to Program Manager and then File Manager.
3. Select your CD drive (drive D for this example) in file manager using the icon.
4. Select the folder "App_spec" and double click on it.
5. Select the folder "Cdimg" and double click on it.
6. Double click on the "Setup.exe" file in "App_spec/cdimg" directory and instructions will prompt you in the installation of the viewing and retrieval software.
7. On the first screen that comes up, select "Continue."
8. On the next screen, it will state that the program will copy some files to your hard drive (example C:\WINDOWS); select "Continue."
9. The next screen is a "set Destination Screen." It will ask where you want to put the data and give you options for installation. In the "install to" window it should say \CDIMAGE. In the "Installation Options" window the first button should be selected (install application and system files on local drive).
10. Press the "Install" button at the bottom of the screen.
11. The next screen asks for the CD-ROM drive. Put in the drive letter for the CD-ROM drive and press "Continue."
12. The CD-ROM Image Retrieval system is now installed onto your computer. The screen should state "Setup successful" and then you should select "OK." If your screen does not have the "Setup successful" indication then you will need to try the installation procedures again.
13. You should now have a Program Group (CD Image Retrieval) with 2 icons in it. Use the program group or drag the icons into another group. Selecting either icon will access the secondary search system.

Perform the following steps to complete the installation.

Install INMAGIC® DB/TextWorks™ software, database, TOC, and EPA index as follows:

1. Go to File Manager and create a subdirectory on C:\ called "adminrec."
2. Insert Disk 1 into the CD drive.
3. Copy all Disk 1 files into the "adminrec" directory on the C drive.
4. Go to the "C:\adminrec\ directory," highlight all the files and then use the menu to select "File," "Properties," "Attributes."
5. Remove the "X" in the "read-only" box.
6. Exit File Manager. In Program Manager, select the Image Retrieval Group.
7. Select "File," "New," "Program Item," and click "OK."
8. On "Description Line" type in "Admin Record."
9. On "Command Line" type in "C:\adminrec\DBSGSRCH.EXE."
10. Select "Change icon," select one of your choice, and click "OK." (Note: the installation process may provide an assigned program icon that overrides your choice.)
11. The icon should be in the program group named Image Retrieval; if it isn't present, then the Group was not selected before proceeding to Step 8. Find the icon and drag it to the correct Group.
12. Double click the icon and INMAGIC starts.
13. Go to "File" and select "User Preferences." Go to "imaging" and select "drive D," and click "OK."
14. Go to "File" and "exit" to quit.

Refer to the User Manual or Readme2 for full searching instructions.

This setup configuration allows a search for records in the AR file on the hard drive, and then allows viewing them (except Record 1, the EPA index, which is on the hard drive) on your CD drive. To see the EPA index printout, change the user preference to "none"; this will change the viewing from the CD drive to the hard drive.

After searching the database and finding a desired record, the record can be viewed and printed. Once a desired record is identified and its number known, subsequent access can be through the use of Disk 2 through *n* and the KODAK image system. Click on the CD Image Retrieval icon to start the software and a box will request selection of a database. Select "OK" as your installation is the only option. Now select the "binoculars." The Find box will appear with the cursor flashing in the AR_Number box (the other two fields don't apply). Put in the desired record number and select "OK." An image of the first page of the desired document will be shown. The software is very user friendly and there is a help window for instructions.

5.1.2 Windows 95 users

The process involves placing the database, table of contents, and the first record (EPA Index) on the hard drive. The following instructions assume that the hard drive is "C," and the CD drive is "D." The instructions would need to be adjusted if the computer setup is different.

Install the KODAK® OPTISTAR™ search software and icons as follows:

1. Insert Disk 2 into the CD drive.

2. Go to Windows Explorer and then My Computer.
3. Select your CD drive (drive D for this example).
4. Select the folder "App_spec" and double click on it.
5. Select the folder "Cdimg" and double click on it.
6. Double click on the "Setup.exe" file in App_spec/cdimg directory and instructions will prompt you in the installation of the viewing and retrieval software.
7. On the first screen that comes up, select "Continue."
8. On the next screen, it will state that the program will copy some files to your hard drive (example C:\WINDOWS); select "Continue."
9. The next screen is a "set Destination Screen." It will ask where you want to put the data and give you options for installation. In the "install to" window it should say \CDIMAGE. In the "Installation Options" window the first button should be selected (install application and system files on local drive).
10. Press the "Install" button at the bottom of the screen.
11. The next screen asks for the CD-ROM drive. Put in the drive letter for the CD-ROM drive and press "Continue."
12. The CD-ROM Image Retrieval system is now installed onto your computer. The screen should state "Setup successful" and then you should select "OK." If your screen does not have the "Setup successful" indication then you will need to try the installation procedures again.
13. You should now have a Program Group (CD Image Retrieval) with 2 icons in it. Select the icon that is labeled "CD Image Retrieval CD."
14. While holding the mouse button down drag the icon to your start up screen.
15. Close the "CD Image Retrieval" group box by selecting the "x" in the top right corner.

Perform the following steps to complete the installation.

Install INMAGIC® DB/TextWorks™ software, database, TOC, and EPA index as follows:

1. Go to Windows Explorer, highlight [C:] under "My Computer"
2. Go to "File," highlight "New," then "Folder" and click one time. In the newly created folder box enter "adminrec" and hit the "enter key."
3. Insert Disk 1 into the CD drive.
4. Select the "D" drive and then copy all Disk 1 files into the "adminrec" directory on the "C" drive.
5. Select "adminrec," and highlight all the files. Select "File," and then "Properties," and click once.
6. Under "attributes" remove the "X" in the "read-only" box and then select "OK."
7. Go to Windows Explorer, and highlight "C:\adminrec\Dbsgsrch.exe."
8. Go to "File" and click one time. Arrow down to "New," and then "Shortcut," and click once.
9. On the "Command line" type "C:\adminrec\Dbsgsrch.exe," and then click "Next."

10. On the "Select a name for the shortcut line" type "Db search," and then select "Finish."
11. Drag the "Db search" icon to your start up screen.
12. Go to "File" and select "Close."
13. Double click the icon "Db search" and INMAGIC starts.
14. Go to "File" and select "User Preferences." Go to "imaging," select "drive D," and then click "OK."
15. To quit, Go to "File" and then select "Exit."

Refer to the User Manual or Readme2 for full searching instructions and use of INMAGIC.

This setup configuration allows a search for records in the AR file on the hard drive, and then allows viewing them (except Record 1, the EPA index, which is on the hard drive) on your CD drive. To see the EPA index printout, change the user preference to "none," this will change the viewing from the CD drive to the hard drive.

After searching the database and finding a desired record, the record can be viewed and printed. Once a desired record is identified and its number known, subsequent access can be through the use of Disk "2 through *n*" and the KODAK image system. Click on the CD Image Retrieval icon to start the software and a box will request selection of a database. Select "OK" as your installation is the only option. Now select the "binoculars." The Find box will appear with the cursor flashing in the AR_Number box (the other two fields don't apply). Put in the desired record number and select "OK." An image of the first page of the desired document will be shown. The software is very user friendly and there is a help window for instructions.

5.2 Second Option

5.2.1 Windows 3.1 users

The second option for loading the disks puts only the setup program and the Program Group on the hard drive.

The following instructions assume that the computer hard drive is "C," and the CD drive is "D." The instructions would need to be adjusted if the computer setup is different.

Install the KODAK® OPTISTAR™ search software and icons as follows:

1. Insert Disk 2 into the CD drive.
2. Go to Program Manager and then File Manager.
3. Select your CD drive (drive D for this example) in file manager using the icon.
4. Select the folder "App_spec" and double click on it.
5. Select the folder "Cdimg" and double click on it.
6. Double click on the "Setup.exe" file in "App_spec/cdimg" directory and instructions will prompt you in the installation of the viewing and retrieval software.
7. On the first screen that comes up, select "Continue."
8. On the next screen, it will state that the program will copy some files to your hard drive (example C:\WINDOWS); select "Continue."

9. The next screen is a "set Destination Screen." It will ask where you want to put the data and give you options for installation. In the "install to" window it should say \CDIMAGE. In the "Installation Options" window the first button should be selected (install application and system files on local drive).
10. Press the "Install" button at the bottom of the screen.
11. The next screen asks for the CD-ROM drive. Put in the drive letter for the CD-ROM drive and press "Continue."
12. The CD-ROM Image Retrieval system is now installed onto your computer. The screen should state "Setup successful" and then you should select "OK." If your screen does not have the "Setup successful" indication then you will need to try the installation procedures again.
13. You should now have a Program Group (CD Image Retrieval) with 2 icons in it. Use the program group or drag the icons into another group. Selecting either icon will access the secondary search system.

Perform the following steps to complete the installation.

1. Insert Disk 1 into the CD drive.
2. Go to Program Manager.
3. Go to File Manager, and CD drive icon.
4. Double click on the "Dbsgsrch.exe" file.
5. You should now have a screen labeled "INMAGIC DB/SearchWorks 2.0a Run-time."
6. Click on "File."
7. Arrow down to "User Preferences" and click once.
8. Arrow down to "imaging" and check that your CD drive designation is correct. If not, change it to the correct CD drive letter.
9. Click "OK" in the upper right corner.
10. Your screen should now say "INMAGIC DB/SearchWorks 2.0a Run-time."
11. Select the word "File" and then arrow down to "Open" and click one time.
12. Your screen should now say "Open INMAGIC DB/TextWorks Textbase" and the cursor should be flashing on "basename.tba."
13. The file "basename.tba" should be visible in the file section. If it is not, check that the path for the file on the screen is D:\ (provided D is your CD drive) Arrow down to "basename.tba" and click it once. If "basename.tba" is not visible, you will need to check your computer's configuration and/or retry the installation process.
14. Check to see that under the drive window at the bottom of the box that it is still reflecting the correct letter for your CD-ROM drive.
15. Now click the "OK" button in the top left corner of the screen one time.
16. You should now have a screen that says "Query by Example" and the cursor should be flashing in the box under the words "AR IR File Number."
17. Put "10" in the box and then click the button one time that says "GO" (below the word Example).

18. You should now have a screen that says the "Query found one record." Press "Yes" to view the record.
19. You are now looking at the database entry for that record. You can not physically view the document since you did not put the database on your hard drive and the images are on the other disk. You can only look at one disk at a time in this configuration (either the database or the images), which is why we recommend the first option for loading.
20. Click the "bar" next to the word "Report" in the title of the screen (Report: Record 1 of 1), arrow down to close and click it one time.
21. You should now be back to the "Query by Example" screen. Click the bar next to the word "Query." Select "Close" and click one time.

After you have finished searching for documents close all reports and close all "Query by Example" screens.

Your screen should now be the "INMAGIC DB/SearchWorks 2.0a Run-time" screen.

1. Select the word "File" on the run-time screen and arrow down to "Close." Click that word one time.
2. Select the word "File" again and then arrow down to "exit" and click that word one time.
3. You are now back to the "File Manager" screen.
4. Remove Disk 1 and put Disk 2 into the CD drive.
5. Go to the "Program Manager" screen and select an icon in the program group. This will start the KODAK program.
6. A screen will come up and you should select "OK." The next screen will come up and it will be titled "Select Database."
7. Select "OK."
8. A double screen should now appear.
9. Arrow to the "binoculars" and click one time. You should now have a screen that is labeled "Find" Type in 10 on the line that is for AR IR File Number. Press "OK" one time. You are now looking at the document.
10. Fill the screen with the document by pressing the proper button in the top right.
11. Magnify the document and make it bigger by pressing the magnify button several times.
12. Press the button under the word Setup and you can page through the document. By selecting the word "Page" in the top row you can go to specific pages.
13. To Quit, Select "File" and then "exit."

Refer to the User Manual or the Readme2 file on this disk for INMAGIC® DB/TextWorks™ searching instructions.

5.2.2 Windows 95 users

The second option for loading the disks puts only the setup program and the Program Group on the hard drive.

The following instructions assume that the computer hard drive is "C," and the CD drive is "D." The instructions would need to be adjusted if the computer setup is different.

Install the KODAK® OPTISTAR™ search software and icons as follows:

1. Insert Disk 2 into the CD drive.
2. Go to Windows Explorer and then My Computer.
3. Select your CD drive (drive D for this example).
4. Select the folder "App_spec" and double click on it.
5. Select the folder "Cdimg" and double click on it.
6. Arrow down to the "Setup.exe" file in App_spec/cdimg directory and double click on it. Instructions will prompt you in the installation of the viewing and retrieval software.
7. On the first screen that comes up, select "Continue."
8. On the next screen, it will state that the program will copy some files to your hard drive (example C:\WINDOWS); select "Continue."
9. The next screen is a "set Destination Screen." It will ask where you want to put the data and give you options for installation. In the "install to" window it should say \CDIMAGE. In the "Installation Options" window the first button should be selected (install application and system files on local drive).
10. Press the "Install" button at the bottom of the screen.
11. The next screen asks for the CD-ROM drive. Put in the drive letter for the CD-ROM drive and press "Continue."
12. The CD-ROM Image Retrieval system is now installed onto your computer. The screen should state "Setup successful" and then you should select "OK." If your screen does not have the "Setup successful" indication then you will need to try the installation procedures again.
13. You should now have a Program Group (CD Image Retrieval) with 2 icons in it. Select the icon that is labeled "CD Image Retrieval CD."
14. While holding the mouse button down drag the icon to your start up screen.
15. Close the "CD Image Retrieval" group box by selecting the "x" in the top right corner.

Perform the following steps to complete the installation.

1. Insert Disk 1 into the CD drive.
2. Go to Windows Explorer.
3. Under "My Computer" arrow down to your CD drive icon and click once.
4. Double click on the "Dbsgsrch.exe" file.
5. You should now have a screen labeled "INMAGIC DB/SearchWorks 2.0a Run-time."
6. Click on "File."
7. Arrow down to "User Preferences" and click once.
8. Arrow down to "imaging" and check that your CD drive designation is correct. If not, change it to the correct CD drive letter.

9. Click "OK" in the upper right corner.
10. Your screen should now say "INMAGIC DB/SearchWorks 2.0a Run-time."
11. Select the word "File" and then arrow down to "Open" and click one time.
12. Your screen should now say "Open INMAGIC DB/TextWorks Textbase" and the cursor should be flashing on "basename.tba."
13. The file "basename.tba" should be visible in the file section. If it is not, check that the path for the file on the screen is D:\ (provided D is your CD drive) Arrow down to "basename.tba" and click it once. If "basename.tba" is not visible, will need to check your computer's configuration and/or retry the installation process.
14. Check to see that under the drive window at the bottom of the box that it is still reflecting the correct letter for your CD-ROM drive.
15. Now click the "OK" button in the top left corner of the screen one time.
16. You should now have a screen that says "Query by Example" and the cursor should be flashing in the box under the words "AR IR File Number."
17. Put "10" in the box and then click the button one time that says "GO" (below the word Example).
18. You should now have a screen that says the "Query found one record." Press "Yes" to view the record.
19. You are now looking at the database entry for that record. You can not physically view the document since you did not put the database on your hard drive and the images are on the other disk. You can only look at one disk at a time in this configuration (either the database or the images), which is why we recommend the first option for loading.
20. Click the "bar" next to the word "Report" in the title of the screen (Report: Record 1 of 1), arrow down to close and click it one time.
21. You should now be back to the "Query by Example" screen. Click the bar next to the word "Query." Select "Close" and click one time.

After you have finished searching for documents close all reports and close all "Query by Example" screens.

Your screen should now be the "INMAGIC DB/SearchWorks 2.0a Run-time" screen.

1. Select the word "File" on the run-time screen and arrow down to "Close." Click that word one time.
2. Select the word "File" again and then arrow down to "exit" and click that word one time.
3. You are now back to the Windows Exploring screen.
4. Remove Disk 1 and put Disk 2 into the CD drive.
5. Go to the start up screen and select "CD Image Retrieval CD." This will start the KODAK program.
6. A screen will come up and you should select "OK." The next screen will come up and it will be titled "Select Database."
7. Select "OK."

8. A double screen should now appear.
9. Arrow to the "binoculars" and click one time. You should now have a screen that is labeled "Find." Type in 10 on the line that is for AR IR File Number. Press "OK" one time. You are now looking at the document.
10. Fill the screen with the document by pressing the proper button in the top right.
11. Magnify the document and make it bigger by pressing the magnify button several times.
12. Press the button to the left of the magnifying glass and you can page through the document. By selecting the word "Page" in the top row you can go to specific pages.

Refer to the User Manual or the Readme2 file on this disk for INMAGIC® DB/TextWorks™ searching instructions.

LABAT-ANDERSON INCORPORATED

USER MANUAL

USING DB/TextWorks™ — The Administrative Record: Searching, Viewing, and Printing

March 1999

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AN INTRODUCTORY NOTE TO USING INMAGIC® DB/TextWorks™ — the Administrative Record

These instructions are provided to assist you in using the INMAGIC® DB/TextWorks™ software to search for items in the AR database, view and print images, and prepare reports. These instructions are customized for Information Repository users, and are intended to be non-technical so that an inexperienced computer user can operate the software successfully.

The INMAGIC® DB/TextWorks™ is a Windows-based, user-friendly software with extensive on-screen help. The version at this Information Repository allows you to search the database, view and print images, and print reports of your search findings. You cannot alter or delete a record or change the operating characteristics of the software.

The instructions assume some familiarity with computer operations and with the Microsoft Windows™ software. If you need assistance in computer or Windows operations, consult the personnel at the Information Repository location.

CONVENTIONS USED IN THIS MANUAL

The following text-highlighting conventions are used in these instructions.

- **Menu choices, keys to be pressed, or comments shown on the screen are shown in bold.**
- ***Information to be typed into a screen is shown in bold italics.***
- Brackets — ***[basename]*** — enclose a "generic" name; the name shown on the screen will be an actual (or abbreviated) installation name or file name.
- *Italics are used for emphasis.*
- **Field Names are shown like this.**

This page intentionally left blank.

USING INMAGIC® DB/TextWorks™ — The Administrative Record

Searching is the process of finding information in the textbase. A search is a request to find all of the records that match specific requirements. INMAGIC® DB/TextWorks™ makes searching easy! You will be able to search the textbase on any field or combination of fields, sort the results by the field of your choice, view the scanned image of one or more documents, and print document pages or a report of your search findings.

1. SEARCHING

1.1 BEFORE YOU START

Before you actually "hit the keyboard," there are a few things you should know about searching the textbase (the DB/TextWorks term for the database).

1.1.1 Understanding What the Textbase *Is* — and Is *Not*

The AR textbase *is* an *index* of the documents in the administrative record. The textbase consists of many *records*, one for each document in the AR. A *record* may contain information in approximately 32 *fields*, or items of information about the document — date, subject or title, author, sites, etc., along with a unique identifying number, the AR/IR File Number. Not all fields will be completed for each record. The textbase fields are described in Appendix A.

The AR textbase is *not* an index of all material in the *IRP files*. Remember that the AR contains only those documents that pertain to the remediation decision and public participation process for the IRP sites.

Finally, the AR textbase is *not* an index of sites, contaminants, etc.

1.1.2 Developing a Search Strategy

The first — and most important — step in any search is to develop a search strategy. To do this, you must identify the objective of your search: What are you looking for, and how do you want the results presented? If you are preparing a report based on the search results, how much data from the index do you want to display?

Use the most logical textbase field for your search. For example, if you are searching for TCE, a contaminant, use the **Contaminant** field for your search, rather than the **Subject or Title** field. If you are searching for site information, use the **Site** field.

1.1.3 Using Boolean Operators — Powerful Search Tools

Before we go any further in our discussion of searching, let's talk about search "theory." You will use tools called *Boolean operators* — **AND, OR, NOT** — to expand and limit searches. These are illustrated in Figure 1-1.

Suppose you are looking for a document that pertains to Site LF-01 and was written by the EPA. The use of the **AND** operator *limits* the search to those documents that are *both* about Site LF-01 *and* from EPA. Documents that are about Site LF-01 but not from EPA, and documents from EPA that do not pertain to Site LF-01, are excluded from the

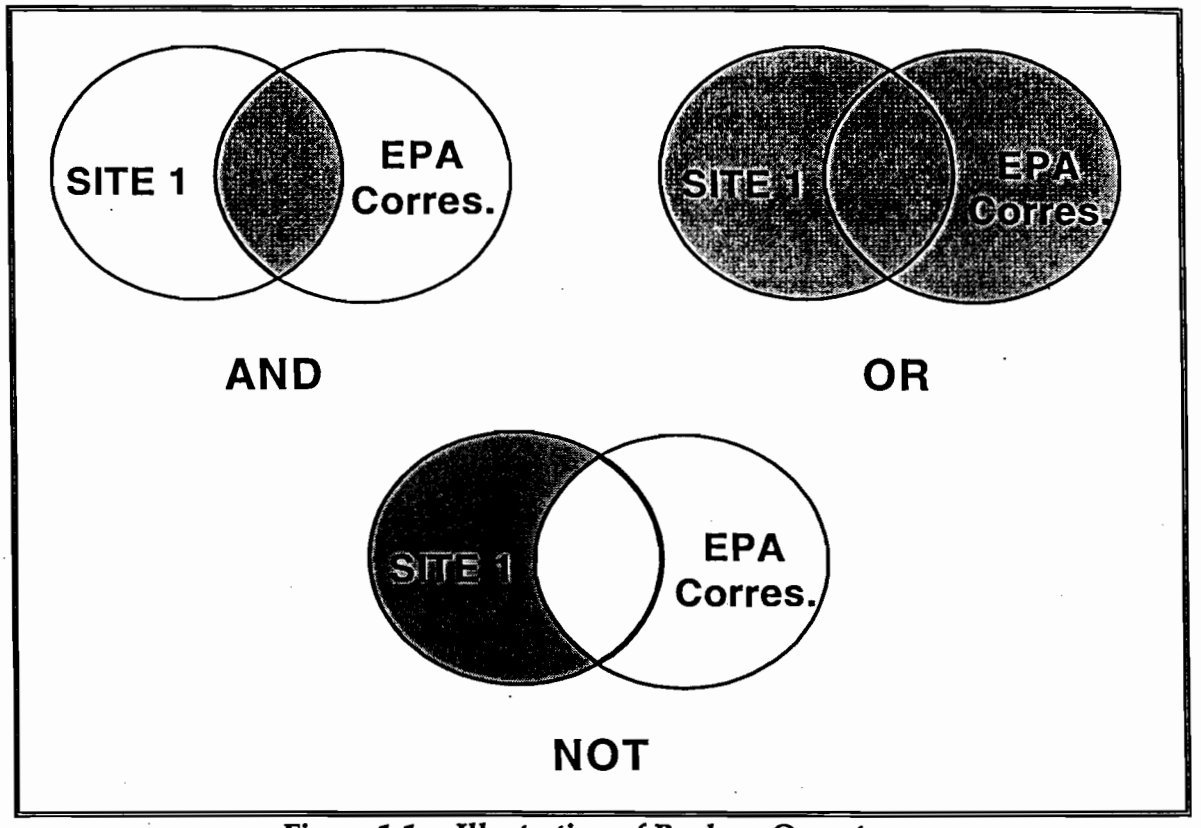


Figure 1-1. Illustration of Boolean Operators

findings. Only documents that meet *both* criteria will be included. This is probably the most common type of search you will use.

Perhaps you need to find all documents that pertain to Site LF-01, from all sources, as well as all other documents from EPA. The use of the **OR** operator *expands* the search. Findings will include all documents that meet *either* criterion. As you can see, this will result in a much larger set of search findings.

Perhaps you need to search for all documents pertaining to Site LF-01 *except* those from EPA. The use of **NOT** *limits* the search in a different way than the use of **AND**. The findings would include only those Site LF-01 documents that meet *both* criteria — about Site LF-01 but *not* from EPA. In other words, the LF-01 documents from EPA would be excluded from the search findings.

1.1.4 Understanding Search Items

Depending on how a field is indexed, you can search for a word, phrase, or term:

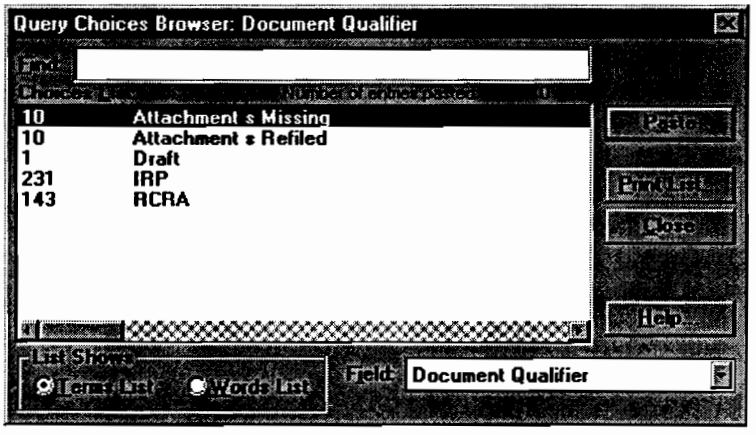
- A *word* is a group of characters that does not contain spaces or punctuation (except a decimal symbol in a number).
- A *phrase* is two or more words separated by spaces, or in some cases, punctuation, such as *surface water* or *LF-01*.
- A *term* is a word or phrase that is also a complete entry in a field. Date and number fields typically are term indexed, as are fields that hold discrete pieces of information, such as the subject/title field.

A *search item* is a single word, phrase, or term that you find in the textbase. You can specify one or more search items in a QBE box. A search item could be a single comparison, range, or proximity search request. For example, *>100,* or *1993:* or *RI Phase 2* are all search items.

1.1.5 Understanding the Browse Feature

The *Browse* function is one of the most useful features of DB/TextWorks, allowing you to examine the actual contents of each indexed field during the search process, thus eliminating guesswork in searching. You can paste items from the lists into the QBE boxes; pasting is often quicker and more accurate than typing. By pasting a word or term, you guarantee that it matches information in the textbase.

While in the QBE form, you can *browse* through the entries in a given field either as *terms* or as *words*. To browse, place the cursor in the box for the field you wish to browse, and click on the **Browse** icon or press **F3**. Terms appear in the Browser dialog box. To see words, click on Words List at the bottom of the screen. The number at the beginning of each line indicates the number of records that contain the word or term shown. You can paste terms or words into the QBE form by double-clicking the selection or clicking **Paste**. A browse screen for the **Document Qualifier** field is illustrated below.



1.1.6 Selecting a Form for the Current Window

- With a Display, Edit, or Report window open and active, click the **Select Form for this Window** button in the window's toolbar.
- Select a form for the current window or click **Revert to Default** to use the textbase default form for this window, then click **OK.**

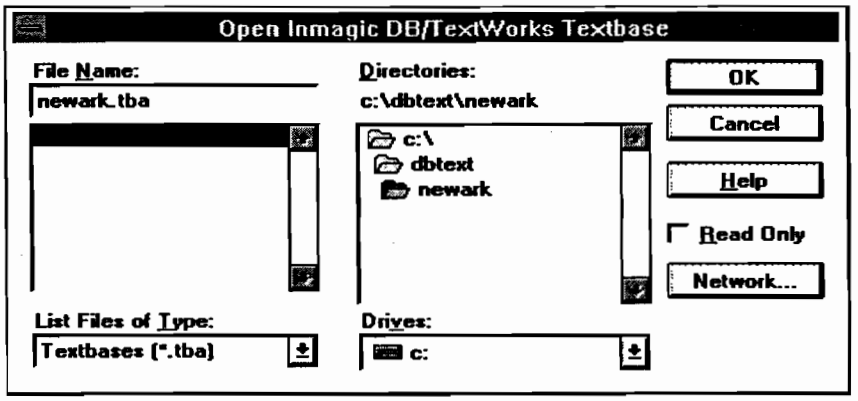
See Sections 3.2.3 and 3.2.4 of these instructions for more information on selecting forms for various activities.

1.2 FINDING RECORDS

After determining your search strategy, you are ready to begin searching the textbase.

1.2.1 Opening the Textbase

Click on the DB/ TextWorks icon on the Windows screen to open the software. Select **File, Open** (or click the **Folder** on the toolbar) to open your AR textbase. The following dialog box appears. Select the *[basename].tba* file and click **OK**.



1.2.2 Searching for Records

When you open your textbase, you see the Query by Example (QBE) Screen. Each box on the screen represents a field that you can search. Unindexed fields cannot be searched, so they do not appear on the QBE screen.

There are two basic techniques that you can use to find records:

- Typing the information required in one or more field boxes — you may type in words, phrases or terms.
- Using the **Browse** feature to select terms or words, as described in Section 1.1.5. Phrases are not available using this technique.

Use of the Browse feature can be combined with typing as needed. You can connect search items using the Boolean operators (**AND, OR, NOT**), either within a box or across boxes. This technique is especially useful when you wish to find a record that satisfies multiple conditions, where you will use more than one of the search fields. For example,

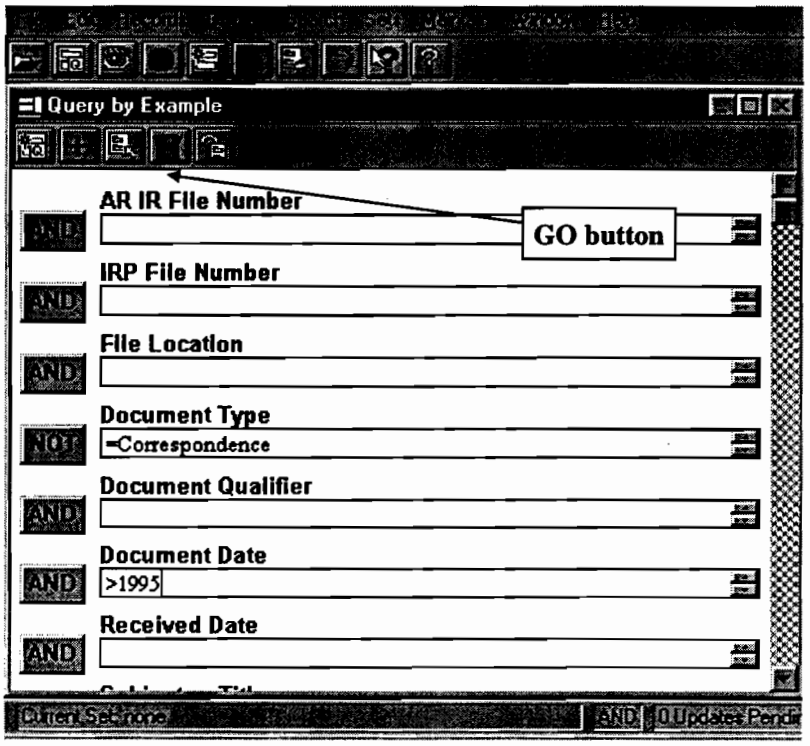
to find correspondence about LF-01 that pertains to an RI, you can type ***LF-01*** in the **Site** field box and ***RI*** in the **Subject or Title** field box, and select **Correspondence** using the **Browse** feature in the **Document Type** field box. (The phrase *LF-01* and the words *RI* and *Correspondence* are all search items.)

☞ Note that the Boolean operator default for searching is **AND** — to select **OR** or **NOT**, click on the **AND** button once or twice, respectively (or use the space bar to toggle among the three choices).

Pasted terms are preceded by an equal sign (=), to indicate a *Term* search. If the QBE box already contains query criteria, pasted items appear after the existing items, preceded by a forward slash (/), which represents the Boolean **OR**. (Remember that **OR** *expands* your search.) The Query Choices Browser dialog box indicates the number of entries pasted.

When you have entered all the search criteria, click the **GO** button on the QBE form to retrieve the records, or choose **Execute Query** from the **Search** menu.

The following screen illustrates the QBE form that you would complete to find all documents, excluding correspondence, dated 1995 or later.



A successful query finds a set of one or more records. You can display, sort, print, edit, and perform other operations on the records in the set. You can save the set of records and the search criteria so you can use them later.

1.2.3 Summary of Search Steps

- Open the textbase. A QBE form appears.
- Select a QBE field box using the Tab key or the mouse.
- Specify the search items in one or more field boxes.
- Execute the query.
- Decide whether to display records found by the search.
- Optionally, perform operations on records found by the search.

1.2.4 Search Tips

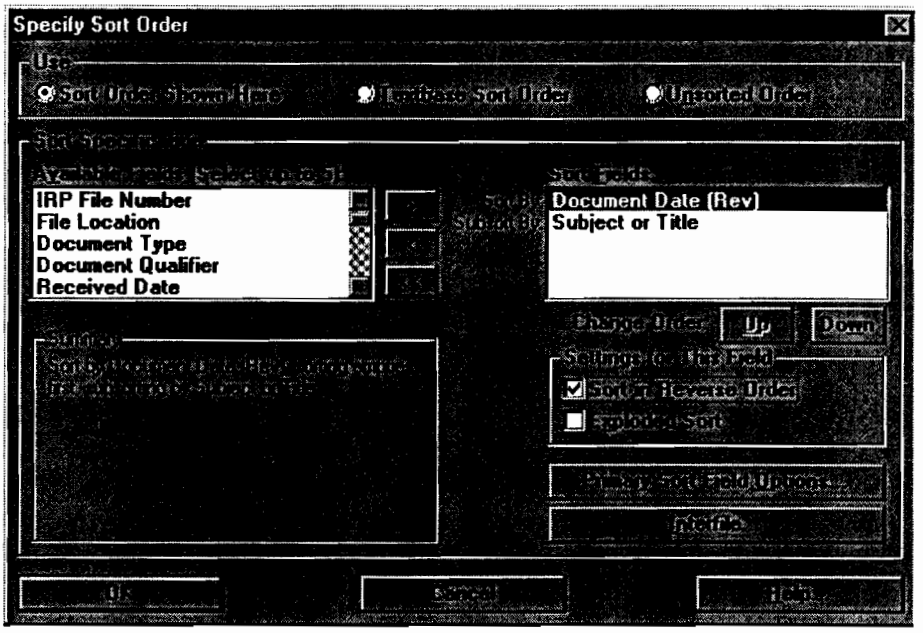
- Always use the **Browse** feature for fields like **Subject or Title** that contain variable entries.
- If you type in a single number, word, or phrase, the search results will include all entries that contain the term you typed.
- If you wish to look for an exact match, type = before your entry. However, if there is any inconsistency in terminology, spelling, or names, the use of = will exclude any variations. For example, if you type =Doe, John, your search results will not include any references to Doe, John A. or Doe, J.A. Punctuation and case are ignored for matching purposes. Thus, *Doe, John* is the same as *DOE JOHN*. Using the **Browse** icon or the **F3** command to browse the entries will avoid this problem of inconsistencies in the spelling.

1.3 USING THE SEARCH FINDINGS

After you have executed the QBE, a DB/TextWorks message will appear telling you how many records were found in the search and asking if you want to display the list of records in the Report window. Click on **Yes** to display the records in the Report window, or **No** if you do not wish to display the records.

1.3.1 Sorting Records

Before printing, you can sort the collected records to ensure they appear in the desired order. Choose **Sort Report** from the **Display** menu (or click on the **Sort** icon on the main toolbar) to sort records in a particular order. For example, you may wish to sort the records chronologically, with the most recent documents listed first, and subsort by the **Subject or Title** field. As the following screen indicates, select **Document Date** from the **Available Fields** list and click the right arrow button to move it into the **Sort Fields** box. Click on **Sort in Reverse Order** to have the most recent date appear first in the listing. Then double-click on **Subject or Title** to move it into the **Sort Fields** box.



1.3.2 Omitting Records

You may want to omit one or more records from the search set before printing. (Note that this option does not *delete* records from the textbase.) To remove a record from the search set, click on the **Omit Record** icon on the record display screen, or choose **Omit Record** from the **Sets** menu.

2. VIEWING AND PRINTING SCANNED IMAGES

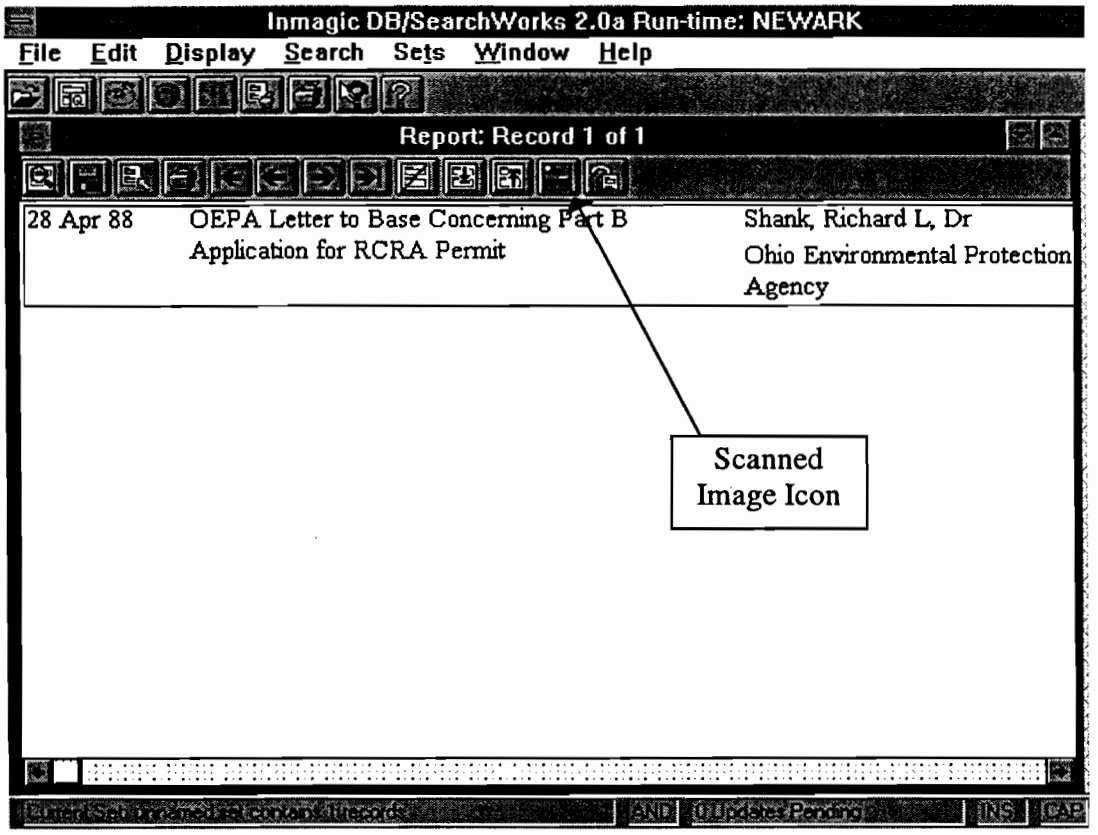
Once you have located the document(s) you are seeking, you can view the scanned image of the document and print the desired pages.

2.1 VIEWING THE IMAGE

First, arrow down to the **CD Volume** field at the bottom of the screen and note the number of the disk that contains the desired record. Insert that disk into the drive. At some installations, Disk 2 of the CD ROM set will contain all of the record images.

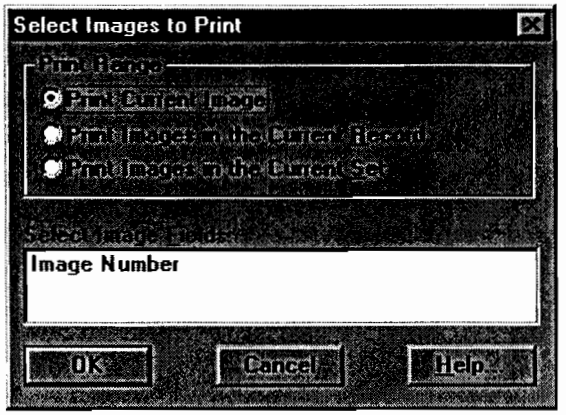
Next, click on the blue and green **Show Record Images** icon, as shown in the illustration below. It may take a few seconds to retrieve the image. Click on the document to make it larger, or use the other tools at the top of the images window as needed. Pointing to a tool produces a box that describes the tool's function.

If your installation has multiple image disks, you may need to swap disks in order to view all of the desired records. If a message appears that an image is not available, the wrong disk is in the drive. Consult the **CD Volume** field and insert the correct disk.



2.2 PRINTING A SCANNED IMAGE

To print, simply click on the printer icon on the top toolbar or select **File, Print.** The following dialog box appears, allowing you to print the current page, the entire document ("record"), or all documents in your search findings ("images in current set").



Be aware that printing the scanned images will take some time, depending on the printer capabilities at your location.

3. PRINTING REPORTS

Producing printed output from INMAGIC® DB/TextWorks™ is an important part of using the AR textbase (database).

The following instructions will tell you how to print reports of your search findings.

3.1 FORMATTED PRINTOUTS ("REPORT PRINTING FORMS")

Several formats are provided for printing reports of search findings. These contain headings, report dates, and page numbers, as shown in the following illustrations.

3.1.1 The *"Shortlst"* Format

This format, illustrated in Figure 3-1, can be used as a quick reference to locate documents. This format includes a heading on each page with a title, a user input line (Sorted by:), and the date of the report (based on the date in the computer), and inserts page numbers on each page. About ten records will be printed on each page. This format includes four or five fields, depending on the authorship information in the record:

- **Document Date**
- **Subject or Title**
- **AR IR File Number**

and:

- **Author** and **Author Affiliation**

or

- **Corporate Author**

Basename] AFB, XX - AR DOCUMENTS
Sorted by: Document Date, then Subject/Title
Date of Report: 00/00/9_

DOC. DATE	SUBJECT OR TITLE	AUTHOR or CORP. AUTHOR	FILE NUMBER
10 Jun 86	Memo for Record: Cyanide Disposal	Jones, J M 888 SPTG/CEVR	7
19 Nov 86	Monitoring Well Water Level Measurements Report	Remediation, Inc	5
01 Nov 88	State EPA Letter to Base Concerning Leaking Underground Storage Tank	Doe, David R State Health Dept	7
20 Jun 89	Meeting Minutes Concerning the RI/FS Study	Buck, John B, Col 888 AW/CV	9
03 Nov 89	Base Letter to State EPA Concerning Community Relations Plan	Roe, Jane D, Maj 888 AW/PA	4

1

Figure 3-1. The "Shortlst" Format

3.1.2 The *"Sitelst"* Format

This format is very similar to the *"Shortlst"* format. You can use this format when you are printing a listing of all documents associated with a specific IRP site. This format uses the same layout as the "Shortlst" formatted report, but allows for a different heading at the top of the report.

3.1.3 The *EPAIndex* Format

This format has been developed for the required periodic submittal of an updated Index to the EPA. Of course, the format can also be used for other applications. The *EPAIndex* format includes the information required for indices, as set forth in OSWER Directive 9833.3A-1 (1990). This format provides a heading on each page that includes the name of the installation and command, a title, and the date of the report (based on the date in your computer), and inserts a page number on each page. It is illustrated in Figure 3-2.

[Basename] AFB, XX
USAF Air Force Base Conversion Agency
Administrative Record Index
Date of Report: 00/00/9_

AR/IR FILE NUMBER:	10
FILE LOCATION:	On-Base AR Information Repository
DOCUMENT DATE:	27 Sep 93
DOCUMENT TYPE:	Report
AUTHOR:	
AUTHOR AFFILIATION:	
CORPORATE AUTHOR:	Environmental Finders, Inc.
RECIPIENT:	
RECIPIENT AFFILIATION:	nn CES/CEVR
SUBJECT/TITLE:	Remedial Investigation Report
SITES:	LF-01 Landfill (1947-1954)

****

AR/IR FILE NUMBER:	11
FILE LOCATION:	On-Base AR Information Repository
DOCUMENT DATE:	14 Oct 93
DOCUMENT TYPE:	Correspondence
AUTHOR:	Doe, David R
AUTHOR AFFILIATION:	State Health Dept
CORPORATE AUTHOR:	
RECIPIENT:	Jones, J M
RECIPIENT AFFILIATION:	nn CES/CEVR
SUBJECT/TITLE:	State Letter to Base Concerning RI Report for LF-01
SITES:	LF-01 Landfill (1947-1954)

1

Figure 3-2. The *EPAIndex* Format

3.1.4 The *Longlist* Format

This format shows all fields, with and without entries. It includes a heading on each page with title, a user input (Sorted by:) line, and the date of the report (based on the date in the computer), and inserts page numbers at the bottom of each page. This format is illustrated in Figure 3-3.

[Basename] AFB, XX - AR DOCUMENTS
Sorted by: AR/IR File Number
Date of Report: 00/00/9_

AR/IR FILE NUMBER:	10
FILE LOCATION:	On-Base AR Information Repository
DOCUMENT TYPE:	Report
DOCUMENT QUALIFIER:	
DOCUMENT DATE:	27 Sep 93
SUBJECT/TITLE:	Remedial Investigation Report
AUTHOR:	
AUTHOR AFFILIATION:	
CORPORATE AUTHOR:	Environmental Finders, Inc.
CORP. AUTHOR DIVISION:	
RECIPIENT:	
RECIPIENT AFFILIATION:	nn CES/CEVR
ATTACHMENT:	
COPY TO:	Progmgr, S G, HQ AMC/CEVR
ENVIRONMENTAL RESOURCE:	Groundwater Soil
SITE:	LF-01 Landfill (1947-1954)
CONTAMINANT:	Solid Waste Paint Cans Construction Debris
EPA FILE NUMBER:	3.05 Site Characterization Report
OPERABLE UNIT:	OU-2
DATE RECORD ENTERED:	23 Sep 97
EPA REGION:	nn
INSTALLATION CODE:	XYZ
INSTALLATION NAME:	[Basename] AFB, XX
MAJCOM:	US Air Force Base Conversion Agency

1

Figure 3-3. The Longlist Format

3.2 PREPARING A PRINTED REPORT

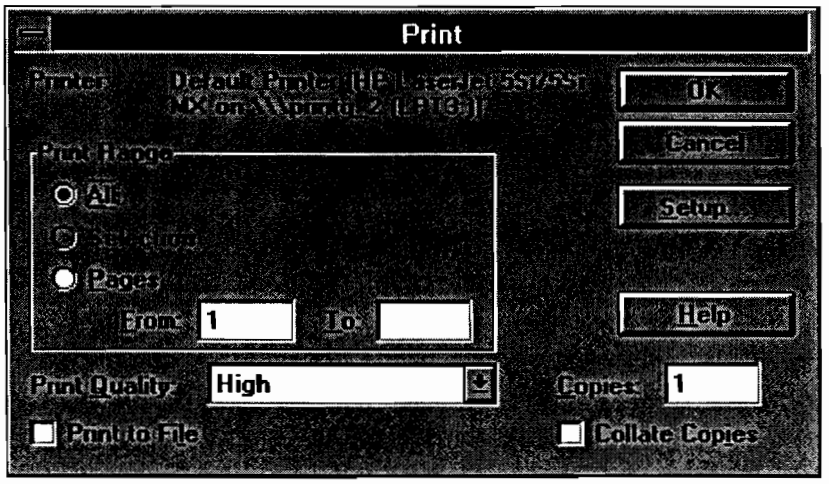
After retrieving a set of records, you can print a report of your findings using the basic report printing form or one of the defined formats. The following sections tell you how to select a printing format, known as a report printing form in the DB/TextWorks software.

You do not have to display records in a window in order to print a report. However, if the **Display** or **Edit** window is active, only the current record is printed and Sort Headers and Sort Footers are omitted from the printed report. Otherwise, all of the records in the current set will be printed.

DB/TextWorks will use the currently selected report printing form to format the output. When you open the Print dialog box, the name of the currently selected Report Printing Form appears in the status bar at the bottom of the Application window (the gray bar at the bottom of your screen). You can print all pages of a report, or selected pages.

3.2.1 Summary of Print Steps

- Perform a search or load a search set.
- Perform any desired optional activities:
  - Omit any records that you do want to include in the report — choose **Omit Record** from the **Sets** menu.
  - Choose **Sort Report** from the **Display** menu if you want to sort records in a particular order.
- If desired, choose a **Report Printing Form** (format) — see Sections 3.2.4 below.
- If you want to preview the report, choose **Print Preview** from the **File** menu.
- Choose **Print** from the **File** menu. The print dialog box appears, and the name of the current report printing form appears on the status bar. The print dialog box is illustrated below; its appearance may be different on some computers.
- Select the desired print options, then click **OK** to begin printing.



3.2.2 Printing an Unformatted Report

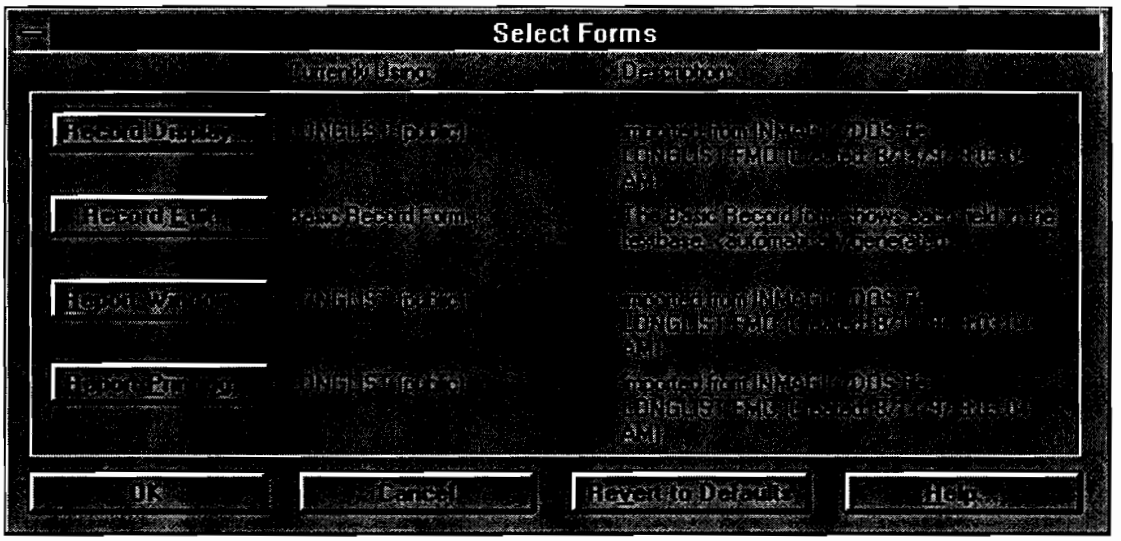
Sometimes you may want an unformatted printout of one or more records. Collect the desired record(s) and simply click the **Print** icon on the record report screen or the main toolbar, or choose **Print** from the **File** menu. The printout will look like the basic report form, with no headings (but with page numbers).

3.2.3 Selecting Forms

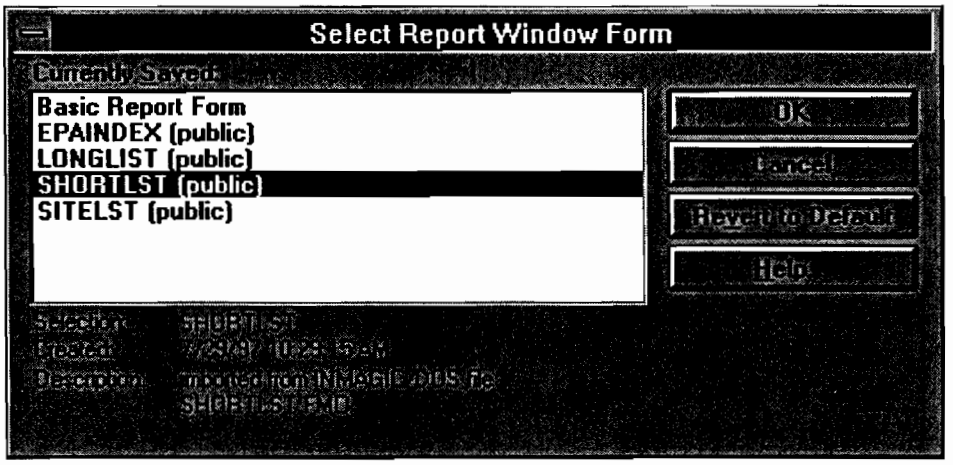
While displaying records or reports (multiple records), or printing, you can use the basic record or report form — the "default" setting — or select one of the contractor-prepared formats. You can do this for a particular application by clicking on the **Select Form for this Window** icon within that application (see Sections3.2.3 and 3.2.4).

You can also select forms for all applications at once by doing the following steps:

- Choose **Select Forms** from the **Display** menu. The following dialog box appears.



- To select a form for a particular operation, click one of the four buttons: **Record Display, Record Edit, Report Window,** or **Report Printing.** However, no additional selections are available for **Record Edit**.
- A dialog box displays the forms available for that operation. Basic forms are listed first, then forms saved in the textbase file (identified by the word *public* in parentheses) are listed alphabetically. The form currently in use is highlighted in the dialog box.



- Select a form, or click **Revert to Default** to assign the textbase default form for the operation identified in the title bar of the dialog box. Then click **OK.**

3.2.4 Selecting a Report Printing Form

Another way to select a report format is to click the **Select Report Printing Form** button in the Application window toolbar. Select a form for printing reports or click the **Revert to Default** button to use the printing form specified as the textbase default. Click **OK.**

3.2.5 Printing the Report

When you have selected the report printing form, simply click the **Print** icon on the toolbar or choose **Print** from the File menu.

APPENDIX A

TEXTBASE FIELDS AND CHARACTERISTICS

The following table provides the field description, field name, and a brief discussion of the fields that are available for searching.

Table A-1
Textbase Fields

Textbase Field	*Discussion*
AR/IR File Number *Field Name:* **AR IR File Number**	This is the unique identifier for each document.
IRP File Number *Field Name*: **IRP File Number**	The Air Force Record Information Management System (RIMS) generated file code from the installation file plan. This is found in the upper right hand corner of a document.
File Location *Field Name:* **File Location**	This data field describes the location of the document.
Document Type *Field Name:* **Document Type**	This field describes the type of document entered into the textbase.
Document Qualifier *Field Name:* **Document Qualifier**	This field describes a document that is less than perfect or provides additional information regarding its status. Multiple document qualifiers are allowed.
Document Date *Field Name:* **Document Date**	This is the date of the document in DD Mmm YY format.
Received Date *Field Name:* **Received Date**	This is the date the document was received at the environmental office. Frequently, this information is not available.
Subject or Title *Field Name:* **Subject or Title**	This is the title of the document or subject of the document if a title is not available.
Author *Field Name:* **Author**	This entry is for a person's name, not an organization or agency. Format is Last, First, MI. Multiple authors are allowed.
Author Affiliation *Field Name:* **Author Affiliation**	This is the corporation, organization, or agency for whom an author works. Again, multiple entries are allowed.

Table A-1
Textbase Fields

Textbase Field	*Discussion*
Corporate Author *Field Name:* **Corporate Author**	This entry is for a corporation, organization, or agency *if* a person has not been identified as the author. The AUTHOR and CORPORATE AUTHOR fields are mutually exclusive, i.e., there will not be entries in both fields.
Recipient *Field Name:* **Recipient**	This is the name of the person who received the document or to whom the document was addressed. This information is not always available as many documents are sent to an office only. See the next entry.
Recipient Affiliation *Field Name:* **Recipient Affil**	This is the organization or agency receiving the document or the organization or agency to whom the document was addressed.
Attachment *Field Name:* **Attachment**	This field lists the attachments to a document. If an attachment is a stand-alone document, the AR/IR FILE NUMBER will be included.
Copy To *Field Name:* **Copy To**	This lists the names and organizations of persons listed as copy to or distribution on a document.
Environmental Resource *Field Name:* **Env Resource**	This field lists the significant environmental resource affected by a hazard or contaminant discussed in the document. Multiple entries are allowed.
Notes *Field Name:* **Notes**	This field is for amplifying information regarding the document. Format is text, with no limit specified.
Site Number and Name *Field Name:* **Site**	This field lists all the sites from the Management Action Plan. Multiple entries are allowed.
Contaminant *Field Name:* **Contaminant**	This field lists the hazard or contaminant discussed in the document. Multiple entries are allowed.
EPA File Number *Field Name:* **EPA File Number**	This field contains the USEPA "file code" entry that best describes the stage of the IRP or RCRA process, or that best describes the type of document.
Operable Unit *Field Name:* **Operable Unit**	This field contains the operable unit name or number, if applicable to your installation.
Project Number *Field Name:* **Project Number**	This field is the USAF-assigned project number for contracts to investigate and remediate IRP sites.
Record Of Decision Date *Field Name:* **ROD Date**	This field is for recording the date of a final record of decision or other decision document. Format is DD Mmm YY.
Date Record Entered *Field Name:* **Date Record Entered**	This is the date the record was entered into the AR textbase. Format is DD Mmm YY.
Date Record Modified *Field Name:* **Date Record Modified**	This is the date the record was modified in the AR textbase Format is DD Mmm YY.

Table A-1 Textbase Fields	
Textbase Field	*Discussion*
EPA Region *Field Name:* **EPA Region**	This is the EPA region number (Roman numerals).
Installation Code *Field Name:* **EPA ID Number**	This is the three letter FAA identifier for the installation.
Installation Name *Field Name:* **Installation Name**	This is the name of the installation, including two-letter state abbreviation.
Major Command *Field Name:* **MAJCOM**	This is the Service and major command name.
Image Number *Field Name:* **Image Number**	This field provides the image number on the CD-ROM disks containing the Information Repository.
CD Volume *Field Name:* **CD Volume**	This field provides the volume number of the CD-ROM disk set containing the Information Repository.

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Griffiss AFB, NY Document to be removed from the AR Date of Report: 4/20/99			
Document Date	**Subject or Title**	**Author or Corp. Author**	**File Number**
15-Mar-88	Priority Pollutant Analysis on Water Samples and Soil Samples for Building 36 and Building N13	C T Male Associates, Inc.	243
13-Oct-94	NYSDEC letter to Base Re: Sampling of Dry Well Adjacent to Current Entomology Storage/ Washdown Area	Greco, Jonathan NYSDEC	656
15-Nov-94	RAB Implementation Guidelines	Olsen, Alan K HQ AFBCA/DR	768
21-Feb-95	Analytical Data for Vault Discovered Near Current Entomology Storage Facility, RI	Law Environmetnal, Inc.	810
13-Mar-96	Review of Revised Finding of Suitability to Lease (FOSL) for Building 890-Mohawk Glen Club	Pocze, Douglas EPA Region II	861
5-Feb-97	General Permits for Storm Water Discharges	Marcisofsky, David, E New York State Department of Environmental Conservation	901
11-Aug-97	Buildings 35 and 36: Remedial Investigation	Johnson, Kent D. New York State Department of Environmental Conservation	984
Jul-97	Remedial Investigation Results and Action Plan for the Building 35 and 36 Closure Area At the Former Griffiss Air Force Base, Rome, NY	Parsons Engineering Science, Inc.	1011
27-Oct-97	Building 35 Interim Remedial Acion	McDermott, Michael AFBCA/OL - X	1026
24-Oct-97	Building 35 - Griffiss Air Base	Kenna, John P., PE New York State Department of Environmental Conservation	1027
17-Nov-97	Griffiss Air Base Building 35 Area	Kenna, John P., PE New York State Department of Environmental Conservation	1028
17-Dec-97	Lot 11: Site Closure Certification	McDermott, Michael AFBCA/OL - X	1029
Jan-98	Interim Remedial Actions at the DRMO Area and Building 35: FACT SHEET/Griffiss Air Force Base Conversion Agency	IT Corporation	1049
18-Feb-98	Six (6) Proposed No Further Action Sites, Griffiss AFB. Deleted because it was a transmittal letter for 6 Proposed Plans; was copied and attached to each of plans as attachment (AR#'s: 1285, 1286, 1286, 1287, 1288, 1289 and 1290.	McDermott, Michael AFBCA/OL - X	1054
8-Jan-98	Submittal - Draft Final Primary Document - Proposed Remedial Action Plans for Six (6) Areas of Concern. Deleted because transmittal letter; copied and attached to each of 6 Proposed No Further Action Sites as attachment (AR#'s: 1291, 1292, 1293, 1294, 1295 and 1296).	McDermott, Michael AFBCA/OL - X	1057
Nov-97	FACT SHEET - Interim Remedial Actions at the DRMO Area and Building 35	IT Corporation	1068

Griffiss AFB, NY Document to be removed from the AR Date of Report: 4/20/99			
Document Date	**Subject or Title**	**Author or Corp. Author**	**File Number**
13-Mar-98	Building 35 and 36 Groundwater Investigation Work Plan	Johnson, Kent D. Engineering Geologist II New York State Department of Environmental Conservation	1070
19-Dec-97	Building 35 Hazardous Waste Storage Facility Closure, Griffiss AFB DEC Permit Number: 6-3013-00063/00020	McDermott, Michael AFBCA/OL - X	1121
17-Nov-97	Griffiss Air Base Building 35 Area	Kenna, John P., PE New York State Department of Environmental Conservation - Region 6	1125
25-Sep-97	Buildings 35 and 36 Investigation Report	Johnson, Kent D. New York State Department of Environmental Conservation	1128
16-Sep-97	Buildings 35 and 36 Investigation Report, Griffiss AFB	McDermott, Michael AFBCA/OL - X	1129
31-Jul-97	Building 35 RCRA Closure, Griffiss AFB, New York	McDermott, Michael AFBCA/OL - X	1134
24-Oct-97	Building 35 Griffiss Air Force Base	Kenna, John P., PE New York State Department of Environmental Conservation	1135
5-Mar-98	Buildings 35 and 36 Groundwater Investigation Work Plan, Griffiss AFB	McDermott, Michael AFBCA/OL - X	1141
27-Apr-98	Buildings 35 & 36 Groundwater Investigation Work Plan	Johnson, Kent D., Engineering Geologist II New York State Department of Environmental Conservation	1148
22-Nov-95	DRAFT Hazardous Waste/Material Storage Area Closure Work Plans for Griffiss AFB	McDermott, Michael AFBCA/OL - X	1174
19-Dec-95	DRAFT Hazardous Waste/Material Storage Area Closure Work Plans for Griffiss AFB	Weil, Craig A.	1175
24-Oct-96	Hazardous Waste/Material Storage Area Closure Work Plans for Griffiss AFB: Draft Results and Recommendations Pre-Closure Sampling/Analysis Report	McDermott, Michael AFBCA/OL - X	1176
23-Oct-97	Building 35 Interim Remedial Action	McDermott, Michael AFBCA/OL - X	1192
14-Jul-98	Buildings 35 and 36 Groundwater Investigation	Johnson, Kent D. New York State Department of Environmental Conservation	1195
5-Aug-98	Building 112 Investigation	Johnson, Kent D. New York State Department of Environmental Conservation	1196
1-Sep-98	Response to Comments, Building 112 Draft Investigation Report	McDermott, Michael AFBCA/OL - X	1197
17-Aug-98	Area of Interest (AOI) #66	Pocze, Douglas EPA Region II	1207
1-Sep-98	Buildings 35 and 36 Groundwater Investigation Work Plan	McDermott, Michael AFBCA/OL - X	1212

Griffiss AFB, NY Document to be removed from the AR Date of Report: 4/20/99			
Document Date	**Subject or Title**	**Author or Corp. Author**	**File Number**
2-Dec-98	PCI Sites 3, 7 and 20	McDermott, Michael AFBCA/OL - X	1240
2-Nov-98	DRAFT Closure Work Plan Addendum for: Air National Guard Hazardous Waste Satellite Storage's Areas at Buildings 15,47, 100 and 101 at the former Griffiss Air Force Base, Rome, NY	IT Corporation	1255
31-Aug-98	Preconstruction Conference for Project JREZ 96-7008, Interim Remedial Action, Area of Interest (AOI) 66, Griffiss Air Force Base, New York	McDermott, Michael AFBCA/OL - X	1276
21-Jan-98	Building 1300 (B/36) Closure, Griffiss AFB	McDermott, Michael AFBCA/OL - X	1277
22-Apr-98	Building 35 and 36 Groundwater Investigation Work Plan, Griffiss AFB	McDermott, Michael AFBCA/OL - X	1278
13-May-98	Submission of Revised Responses to Comments on Project Plans	Stahl, David C., IT Corporation	1281

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

March 16, 2000

Mr. Michael J. O'Toole, P.E., Director
Division of Environmental Remediation
NYS Dept. of Environmental Conservation
50 Wolf Road
Albany, New York 12233

Re: Records of Decision for Landfills 2/3, 5, 7
Griffiss Air Force Base
Site #633006
(C) Rome, Oneida County

Dear Mr. O'Toole:

My staff have reviewed the February 2000 Records of Decision for three landfills at the former Griffiss Air Force Base in Rome, Oneida County: Landfill 2/3, Landfill 5, and Landfill 7. Based upon that review, I understand that the selected remedy will include deed restrictions to preclude inappropriate use of the landfill area and the groundwater, capping with a Part 360 soil cap and long-term environmental monitoring.

With this, I agree with the selected remedies and believe they will be protective of public health. If you have any questions, please call Michael Rivara or me at (518) 402-7890.

Sincerely,

G. Anders Carlson, Ph.D., Director
Bureau of Environmental Exposure
Investigation

cc: N. Kim, Ph.D.
Mr. M. Rivara/File
Ms. H. Hamel – SFO
Mr. N. DeRossa – OCHD
Mr. D. Sweredoski – DEC Region 6

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STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

March 16, 2000

Mr. Michael J. O'Toole, P.E., Director
Division of Environmental Remediation
NYS Dept. of Environmental Conservation
50 Wolf Road
Albany, New York 12233

Re: Record of Decision for Landfill 4
Griffiss Air Force Base
Site #633006
(C) Rome, Oneida County

Dear Mr. O'Toole:

My staff reviewed the February 2000 Record of Decision (ROD) for Landfill 4 at the former Griffiss Air Force Base in Rome, Oneida County. Based upon that review, I understand that the selected remedy includes no further action because the concrete vault formerly used for disposal of radioactive materials, its contents, and some surrounding soil were removed as an interim remedial measure. The ROD will include deed notification in case of property transfer and long-term monitoring of the groundwater.

With these actions, I believe the remedy is protective of public health. If you have any questions, please call Michael Rivara or me at 402-7890.

Sincerely,

G. Anders Carlson, Ph.D., Director
Bureau of Environmental Exposure
Investigation

cc: N. Kim, Ph.D.
Mr. M. Rivara/File
Ms. H. Hamel – SFO
Mr. N. DeRossa – OCHD
Mr. D. Sweredoski – DEC Region 6

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MAR 4
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4 Rods Rg (File)

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518) 485-8404
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

To: Michael J. O'Toole, Jr., Director, Division of Environmental Remediation
From: Tom Quinn, Assistant Director, Division of Environmental Remediation
Subject: Records of Decision for Landfills 2/3, 4, 5 & 7; Griffiss AFB (ID No. 633006)

Date: March 16, 2000

I have reviewed the Draft Records of Decision (RODs) for the four referenced Areas of Concern (AOC) at Griffiss Air Force Base, Oneida County. Concurrence on the Proposed Plans was granted for each of these sites earlier in the year, and the Air Force completed the requisite public participation requirements on March 8, 2000.

Each ROD is consistent with its Proposed Plan with only minor exceptions relating to ARAR compliance. The Air Force has agreed to make the necessary changes (which you have already seen as an attachment to the ROD packages sent around for review). The New York State Department of Health has approved the RODs (copies attached).

The USEPA project manager has already forwarded minor clarifications on Responsiveness Summary to the Air Force and the Air Force has agreed to incorporate them. Division Director Richard Caspe has given his verbal approval to the RODs.

Based upon the above, I recommend that you concur with each ROD, and have attached a letter to that effect for your signature.

Please contact me if you have any questions.

CC: M. Chen (w/o attach)
S. Ervolina (w/o attach)

NEW YORK STATE CENSUS 2000
BE PART OF THE COUNT
¡SEA PARTE DE LA CUENTA!

GEORGE E. PATAKI
GOVERNOR

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-1010

JOHN P. CAHILL
COMMISSIONER

Ms. Jeanne M. Fox
Regional Administrator
United States Environmental Protection Agency
Region II
26th Floor
290 Broadway
New York, New York 10007-1866

MAR 15 2000

Dear Ms. Fox:

Enclosed is the original copy of your findings regarding the suitability for early transfer of Parcel F-2, located on Griffiss Air Force Base, Rome, New York. This document has been signed by Governor Pataki and will become final upon your signature.

As I am sure you are aware, this is only the second such transfer of this nature in New York State, and I am pleased that our agencies were able to cooperate successfully to meet the redevelopment needs of the local community.

Please contact Mr. Michael J. O'Toole, Jr., Director of the Division of Environmental Remediation at (518) 457-5861, if you should have any questions regarding this matter.

Sincerely,

John P. Cahill

Enclosure

bc: Commissioner Cahill
G. Donohue
A. Smith
J. Austin
M. O'Toole (2)
D. Desnoyers
T. Quinn
S. Ervolina
M. Chen
J. Greco

JG/aq

NEW YORK STATE CENSUS 2000
BE PART OF THE COUNT
¡SEA PARTE DE LA CUENTA!

FINDINGS OF THE REGIONAL ADMINISTRATOR, EPA
WITH THE CONCURRENCE OF THE GOVERNOR, NEW YORK STATE
REGARDING
EARLY TRANSFER OF PARCEL F2 AT GRIFFISS AIR FORCE BASE (AFB)

I make the following findings to authorize the United States Air Force to transfer Parcel F2 consisting of approximately ninety-four (94) acres on Griffiss Air Force Base and to defer inclusion of the covenant required by Section 120(h)(3)(A)(ii)(I) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in the Quitclaim Deed used to do so. This action is authorized by CERCLA § 120(h)(3)(C) when the United States is not yet able to covenant that "all remedial action necessary to protect human health and the environment... has been taken," an evaluation of the property determines that it can be safely used, and the Air Force provides adequate assurances that it will satisfy its commitment to complete required response actions in a timely manner.

The determination that Parcel F2 is suitable for transfer at this time, based on the property's intended use and the assurances contained in the Quitclaim Deed and/or other agreement related to the transfer (which are required to conform with Section 120(h)(3)(C)(ii) of CERCLA) is not to be construed, either expressly or impliedly, as concurrence on or approval of (1) the findings and/or conclusions set forth in Covenant Deferral Request and its supporting documentation, nor (2) any determination with regard to response actions which have yet to be selected or taken at the Griffiss Air Force Base Site. Furthermore, the determination, as noted above, is not to be construed as a waiver of the right to challenge or dispute the selection of, or performance of, any future response actions in accordance with any agreement or applicable law.

I have reviewed the particulars of the proposed transfer in the attached Covenant Deferral Request for Parcel F2 and make the following findings:

1. The property is suitable for transfer for commercial and industrial use and this use is consistent with protection of human health and the environment as it pertains to CERCLA hazardous substances. This finding is based on the Covenant Deferral Request, the Air Force Finding of Suitability for Early Transfer, and the Air Force Supplemental Environmental Baseline Survey of the Parcel.

2. The Quitclaim Deed and/or other agreement memorializing the transfer contain the response action assurances required by Section 120(h)(3)(C)(ii) of CERCLA. Specifically, the Quitclaim

Deed and agreement protect human health and the environment as it pertains to CERCLA by restricting use of groundwater and access to areas which have not yet been fully evaluated; provide restrictions to ensure that remedial investigations, response actions and oversight activities will not be disrupted; provide that all response actions will be taken and identify schedules for investigations and completion of such actions; and obligate the Air Force to submit a budget request that address schedules for investigations and completion of such actions.

3. The Air Force provided public notice of the proposed transfer on October 10, 1997, by publication in the Rome Sentinel, a newspaper of general circulation in the vicinity of the property, and provided the public with not less than thirty (30) days in which to submit written comments on the suitability of the property for transfer.

4. The deferral and transfer of Parcel F2 will not delay any necessary response action on the property.

Therefore, I find Parcel F2 suitable for transfer in accordance with CERCLA § 120(h)(3)(C).

APPROVAL:

_____ _____

Jeanne M. Fox
Regional Administrator,
U.S. EPA, Region 2

Date

CONCURRENCE:

_____ 2/23/00

George E. Pataki
Governor, State of New York

Date

Parcel F-2, Griffiss Air Force Base

The Following is a brief summation of each known or suspected contaminant area located within Parcel F-2. This table must be used in concert with the attached F-2 FOSET map.

Superfund Sites on Parcel F-2

Site Name/ID	Site Description/Contaminant Profile	Cleanup Activity Status	Restrictions
ST-44 Transformer Substation	The transformer substation is a fenced area known to have had PCB releases in the past. PCBs were found both inside the fence line, as well as beyond the fence line.	All areas inside the substation fence line have been cleaned to "restricted access" levels (25 ppm). The surrounding area has been cleaned to "unrestricted use" levels (i.e., 1 ppm surface, 10 ppm subsurface). The Air Force plans no further response at this site and will submit a Decision Document to closeout the site in 2000.	Global groundwater restrictions apply.* Area is restricted to industrial uses. Movement of clean cover material is subject to restrictions.
On-base Groundwater	Groundwater on the F-2 Parcel was investigated with respect to the individual Areas of Concern present on, and adjacent to, the property.	No groundwater cleanups have been initiated on the property. No cleanup of groundwater is anticipated with the possible exception of the most northern part of F-2 at sites SS-20 (Tank Farms 1 & 3) and ST-36 (Building 110 Aqua Refueling System). Both of these sites are petroleum release sites.	Global groundwater restrictions apply for the entire parcel.* New owner is not allowed to come in contact with water in one area (e.g., SS-20)

Major Petroleum Sites on Parcel F-2

Site Name/ID	Site Description/Contaminant Profile	Cleanup Activity Status	Restrictions
SS-20 Tank Farms 1&3	This site is the former location of two "tank farms" which predominantly stored fuel oils. Both tank farms are now gone, and some remediation was performed. Recent work in the area has revealed continuing petroleum contamination in both soils and groundwater.	The Air Force has assigned an open spill number to this site (9111733) and intends to address the site in 2000.	New owner is not allowed to come in contact with sub-surface soils or groundwater in this area.
ST-36 Bldg. 110 Aqua System	Bldg. 110 was the site of a former aviation fuel storage and distribution "pumphouse". This site is actually north of the transfer property, however, an associated pipeline and possibly-contaminated groundwater extend onto the site. Four 25,000 gallon tanks were removed several years ago, however, not all subsurface and groundwater contamination was remediated.	The four tanks are gone, however, soil and groundwater contamination remain. The associated distribution pipe was cleaned and closed several years ago. The remaining work will begin in 2000.	Global groundwater restrictions apply .*

ST-35 Bldg. 26 Former Pump Station	Bldg. 26 is the former location of a fuel pumping/distribution station. Significant soils contamination was not found. Groundwater has inconsistently exhibited petroleum contamination.	All subsurface tanks have been removed, and soils above the groundwater table appear to have been appropriately remediated. A final decision on the site is expected from the Air Fore in 2000.	New owner is not allowed to come in contact with sub-surface soils or groundwater in this area.

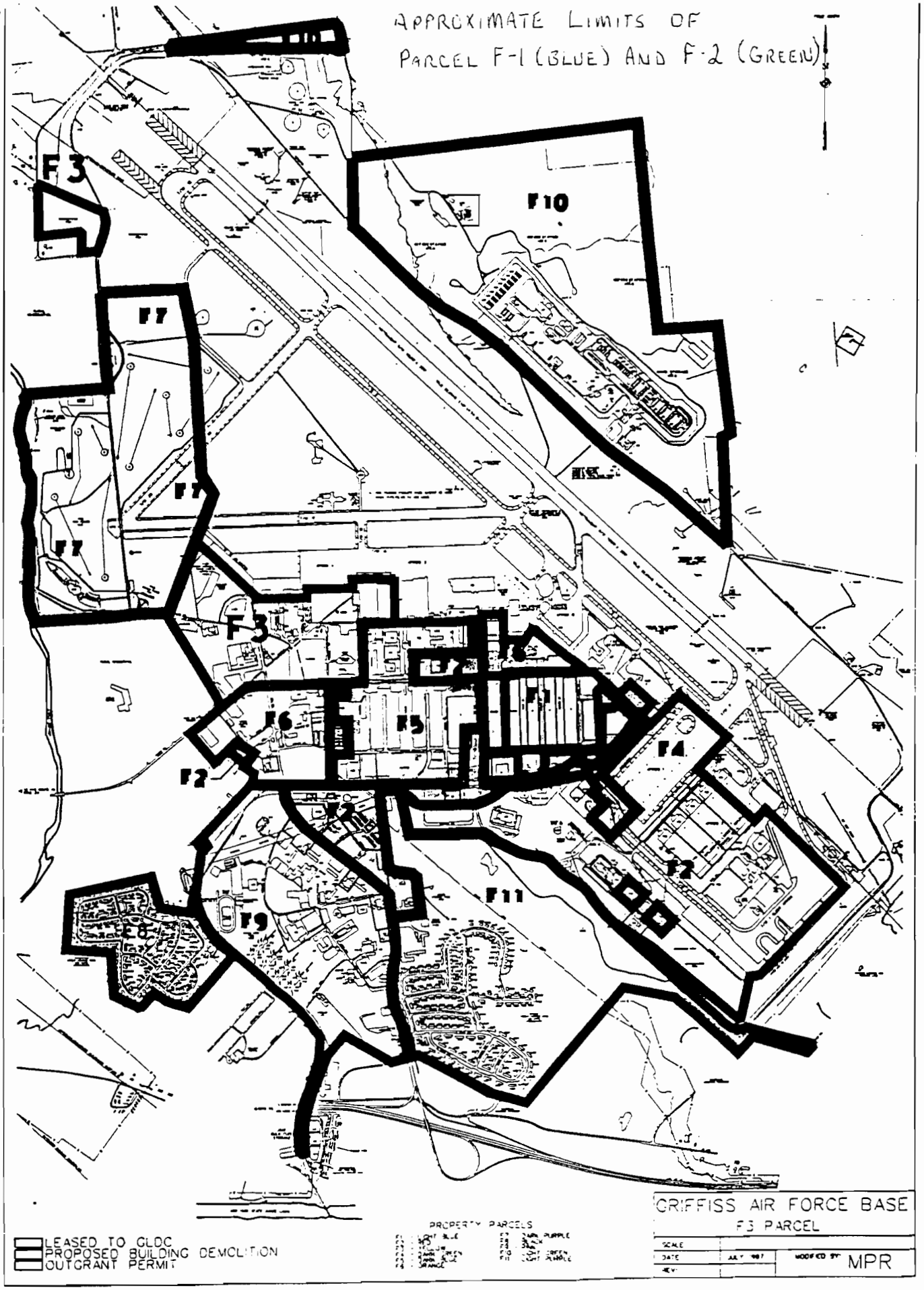
* Global groundwater restrictions state "The owner shall not extract, utilize, or consume or permit to be extracted, any water from the aquifer below the surfaces of the ground within the boundary of the property unless such groundwater has been tested and found to meet all applicable standards."

There are five petroleum releases associated with the property (UST 014-2, AST-316, SS-20, ST-36 and ST-35). The latter three have already been discussed above (i.e., SS-20 ,ST-36 and ST-35); and the preceding two are being actively addressed by the base. Each of these five areas is minimally subject to the global groundwater restrictions, as well as being restricted to industrial reuse only. Only SS-20 ans ST-35 have additional restrictions prohibiting any contact with the groundwater until a remedy has been chosen for the sites. All of the other above ground storage tanks (ASTs) and underground storage tanks (USTs) not already discussed (most of which contained petroleum products) have been properly dealt with; i.e., either closed and removed, or investigated and temporarily closed but reserved for the future owners use.

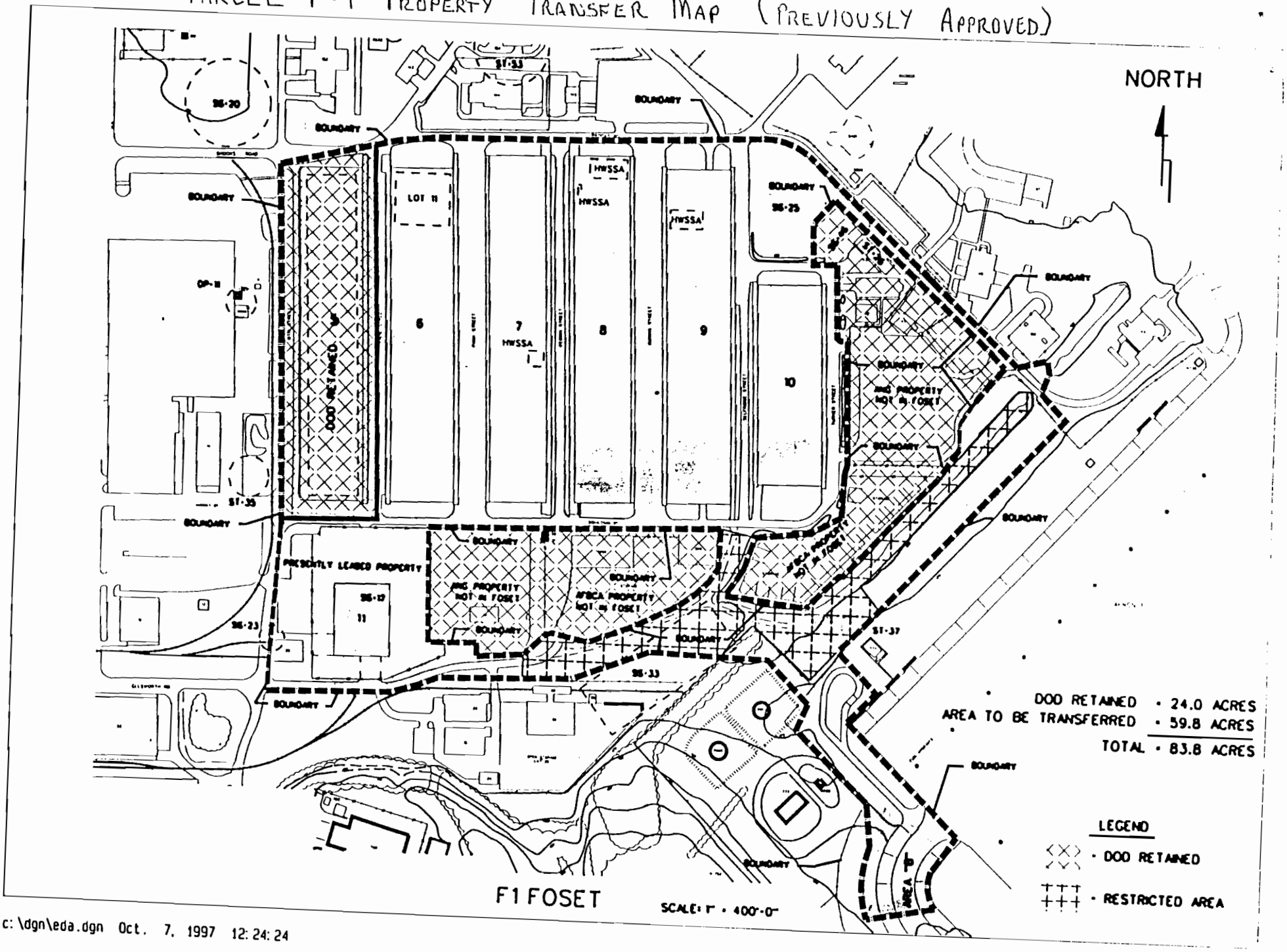
Other Areas of Interest (AOIs)

At AOIs 16 & 193 (a.k.a. Pad 5) the concrete foundation of the former building was cleaned and then broken into rubble and mixed with native soils. This portion of the property is now a graded, open expanse, and is reserved for new construction. Global groundwater and industrial reuse restrictions apply to this area.

Finally, while the Air Force has performed a records search and site walk-over/metal detector surveys of suspicious areas base wide, they do add the stipulation that they cannot guarantee that all unexploded ordnance has been removed; and therefore, in the unlikely event suspicious materials of this nature are encountered during future construction activities, work is to be stopped immediately and the proper authorities are to be contacted.

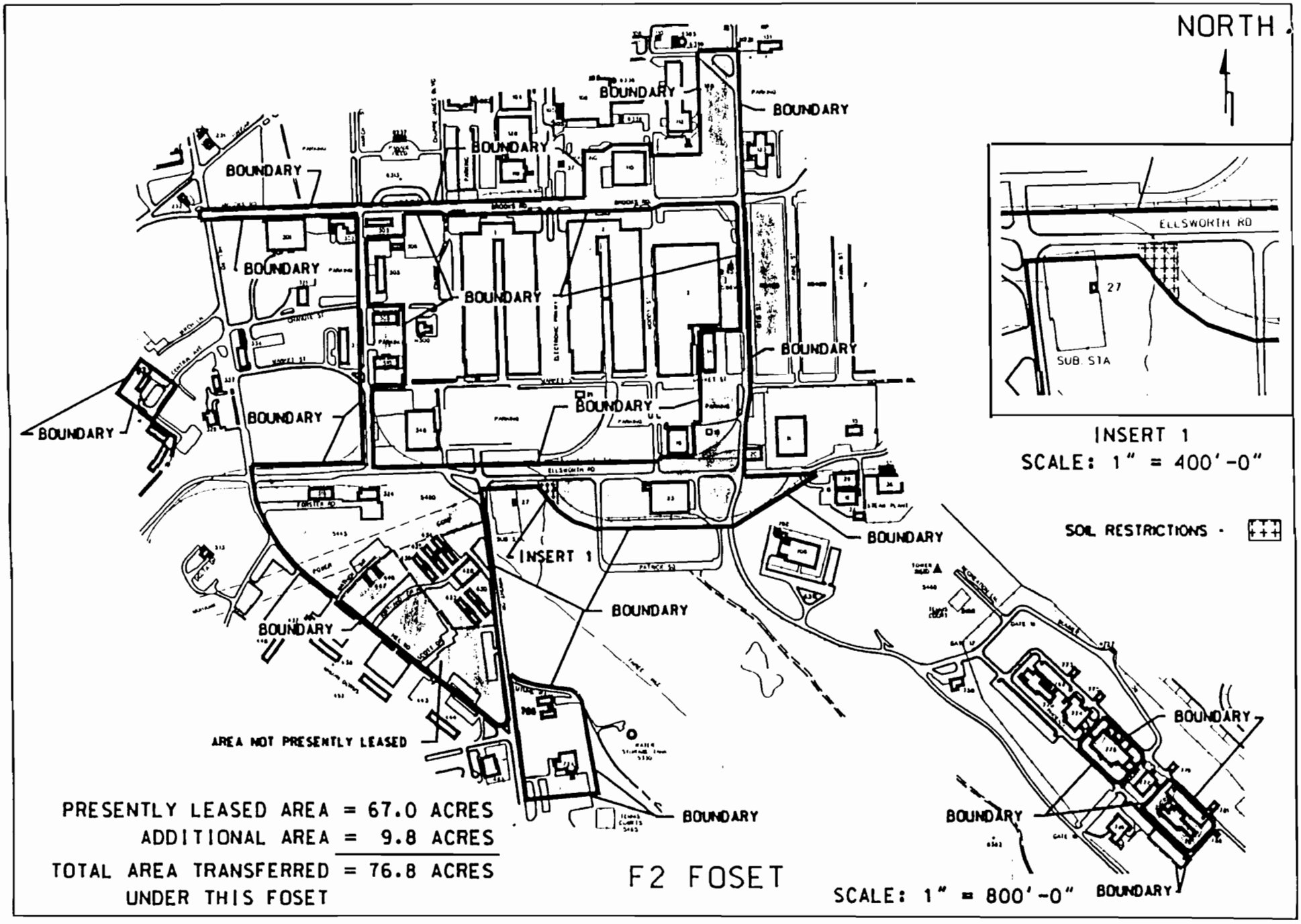

APPROXIMATE LIMITS OF
PARCEL F-1 (BLUE) AND F-2 (GREEN)
F3
F10
F7
F7
F7
F3
F6
F5
F4
F2
F1
F11
F9
F8
LEASED TO GLDC
PROPOSED BUILDING DEMOLITION
OUTGRANT PERMIT
PROPERTY PARCELS
GRIFFISS AIR FORCE BASE
F3 PARCEL
SCALE
DATE
MODIFIED BY
MPR
c:\dgn\leasarea.dgn Oct. 1, 1997 09:03:51

PARCEL F-1 PROPERTY TRANSFER MAP (PREVIOUSLY APPROVED)



c:\dgn\eda.dgn Oct. 7, 1997 12:24:24

PARCEL F-2 PROPERTY TRANSFER MAP



c:\dgn\f2foset.dgn Oct. 16, 1997 11:18:23

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action, Room 242
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-4349 • **FAX:** (518) 457-4198
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

To: Tom Quinn, Assistant Director, Division of Environmental Remediation
From: Sal Ervolina, Bureau Director, Bureau of Eastern Remedial Action
Subject: Records of Decision for Landfills 2/3, 4, 5 & 7; Griffiss AFB (ID No. 633006)

Date: March 14, 2000

Attached are the Draft Records of Decision (RODs) for the three referenced Areas of Concern (AOC) at Griffiss Air Force Base, Oneida County. Concurrence on the Proposed Plans was granted for each of these sites earlier in the year, and the Air Force completed the requisite public participation requirements on March 8, 2000.

Also attached are the few significant modifications (all dealing with ARAR compliance) worked out between technical staff at the USEPA, Air Force and NYSDEC, as well as the draft final Responsiveness Summary. **With the attached corrections, there are no significant changes from the Proposed Plans.**

The following is a brief summary of each site and my recommendation.

- **Landfill 2/3** is a 13 +/- acre landfill which operated from 1977 to 1982. Three areas of the landfill were capped in1984 with clay and soil. This landfill is inclusive of landfill 3, an asbestos burial ground. **Results:** The RI did not reveal much in the groundwater (e.g., 2 freon compounds @ 5-11 ppb, TPH in one well @ 420 ppb); several pesticides were found in surface water at very low levels, and both nickel and chromium were found at 300 ppb each. Additionally, TPH in surface water was found at 410 - 860 ppb; PCBs were present in stream sediments at 1.2 ppm, and TPH in sediments was as high as 2000 ppm. **Record of Decision:** The plan for this site is to close it in accordance with the 1987 Part 360 regulations. This plan was negotiated along with several other landfills on base. In instances where the site risks were marginal, capping with the less stringent regulations was suggested. Under this action, groundwater would be monitored in accordance with a forthcoming long-term, on-base groundwater monitoring plan. Similarly, the stream environment is to be monitored in conjunction with the Six Mile Creek AOC. **Recommendation:** Concur with the ROD.

- **The Landfill 4 site** is a former **low-level radioactive** tube disposal area which was used in the 1950's and 60's. The site consisted of three vertically-stacked concrete rings which had been placed within an approximately twelve-foot deep excavation. The rings were filled over the years with various items, including electron tubes,

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BE PART OF THE COUNT
SEA PARTE DE LA CUENTA!

small electrical components and general refuse (e.g., metal signs, wood scrap, etc.). The uppermost concrete ring served as a cap and was entirely filled with concrete.

Neither the investigation nor the subsequent removal action (taken in the summer of 1997) found a significant risk from the radiation levels in soils or waste. In fact, it appears the removal action was taken as a precautionary measure only, and once excavated, the wastes were dealt with as low-level rad waste solely based upon perception and/or regulatory interpretation. **In short, there was nothing of significance found in the vaults or surrounding soils**, and whatever was there is now disposed of in a low-level radioactive waste disposal facility. This action was performed with the oversight and concurrence of a DEC radiological technician.

The one item which held up the final decision for some time was that the groundwater exhibits levels of both gross alpha and beta activity well above standards. While it is believed that this is primarily the result of having sampled the groundwater via hydropunch® and temporary wells, this has not been thoroughly demonstrated. This issue has been resolved by having the **Record of Decision address only the soils at the site through a No Further Action decision.** Groundwater is to be monitored as part of a forth-coming long-term monitoring program for several areas at the base. In this specific instance, the Landfill # 4 area will be addressed as part of the Landfill # 6 monitoring program (Landfill # 6 is immediately adjacent and upgradient to Landfill # 4). The Air Force has agreed to place a monitoring well immediately downgradient of the former Landfill # 4 site, and monitoring will include all radiological parameters found in the original hydropunch®/ temporary well samples taken at the site. **Recommendation:** Concur with the ROD.

- **Landfill 5** is a four- acre landfill which operated from 1959 to 1960. It is unlined and uncapped. A small hardfill (49D) is contiguous with the site. Wastes are present at the toe of the landfill and in an adjacent wetland area. **Results:** PCBs were found @ 4 mg/kg in surface soils; samples from adjacent drainage ditch show high levels PCB (110 mg/kg at highest), several PAHs and metals. The remediation of the drainage ditch will be handled under the Three Mile Creek AOC. Groundwater has shown PCB @ 0.7 ug/l, however, subsequent sampling did not duplicate those results. **Record of Decision:** The plan for this site is to close it in accordance with the 1987 Part 360 regulations. This plan was negotiated along with several other landfills on base. In instances where the site risks were marginal, capping with the less stringent regulations was suggested. Under this action, groundwater would be monitored in accordance with a forthcoming long-term, on-base groundwater monitoring plan. This plan requires both EPA and State approval. Similarly, the wetland environment is to be monitored in conjunction with the Three Mile Creek AOC. **Recommendation:** Concur with the ROD.

- **Landfill 7** is a 4.5 acre landfill located adjacent to the main runway. The landfill operated from 1950 to 1954 and is alleged to have received office waste, general refuse, industrial wastes, and plane parts. There are allegations of liquid wastes having been disposed of in some of the trenches as well. A tributary to Six Mile Creek is adjacent to the site on the north and west of the landfill. Leachate has been observed in previous studies, but is not continuously evident. **Results:** Total Petroleum Hydrocarbons (TPH) were observed in sediments (both stream and marshy area south of site) @ levels from 30

- 402 mg/kg; surface soils exhibited TPH @ 181-443 mg/kg; surface water exhibited TPH @ 0.5 - 5 mg/l, as well as 3 semi-volatile compounds above standards. Groundwater showed TPH @ 0.3-1.4 mg/l, glycol @ 0.04 - .46 mg/l, Cr+6 @ 97 ppb & MW-17 has shown TCE @ 1.3 - 45 ppb over 5 rounds of sampling. **Record of Decision:** The plan for this site is to close it in accordance with the 1987 Part 360 regulations. This plan was negotiated along with several other landfills on base. In instances where the site risks were marginal, capping with the less stringent regulations was suggested. Under this action, groundwater would be monitored in accordance with a forthcoming long-term, on-base groundwater monitoring plan. This plan requires both EPA and State approval. Similarly, the stream environment is to be monitored in conjunction with the Six Mile Creek AOC. **Recommendation:** Concur with the ROD.

A briefing in your office has been scheduled to discuss these sites more fully.

CC: M. O' Toole (w/attach)
M. Chen (w/attach)
W. Daigle (w/attach)

AFBCA, OL - X

Tel. (315) 330-4092
Fax (315) 330-4062
(DSN 587)

3/10/00

MEMO

Jon,

Got your e-mail requesting info and the report section for OWS/UST SITE 5771-2. Attached as find the report section.

PARAGRAPH 1.13.2.6 on page 1.13-7 and tables 1.13.4 and 1.13.5 are the items that address the exhaust duct sample where the 'strong solvent odors' were noted. PCE, TCE and Vinyl Chloride were analyzed for with non-detects for all. Let me know if further information is required. Thanks.

Mark Rahe

1.13 OWS/UST SITE 5771-2

1.13.1 Site Background

1.13.1.1 Site Location

OWS/UST Site 5771-2 is located in the vicinity of Building 5771, a part of the former Hush House Complex. Building 5771 is located north of Apron-1 in the north-central portion of Griffiss AFB. A site location map is provided in Figure 1.13.1, and the initial site layout is provided in Figure 1.13.2.

1.13.1.2 Site History

Building 5771 is a former indoor jet engine test facility (Hush House). UST 5771-2 was a 10,000-gal fiberglass tank. No other historical information, including the location of the associated OWS 5771, was available to PEER concerning this site at the time of this report.

1.13.2 UST 5771-2 Removal Activities

Removal of UST 5771-2 began on November 25, 1997. After establishing work areas for soil stockpiling, the exclusion zone, and the decontamination area, soil was excavated surrounding a PVC vent pipe on the southern end of the UST, during which a 6-in. cast iron pipe was found connected to the southern end of UST 5771. This pipe was determined to be the input line to UST 5771 from the Building 5771 floor drains. During excavation around this line, a cast iron wye and clean-out were found. The clean-out was leaking water into the excavation, so the clean-out was opened to allow the line to drain. The source of the water was later investigated and was found to be snow melt water (see Section 1.13.2.6). The 6-in. drain pipe also was connected to a floor drain located inside Building 5771 about 20 ft east of the exhaust duct. An exterior flood drain, located about 35 ft east of the UST and 10 ft north of the building, connected via a wye to the 6-in. cast iron drain pipe just ahead of the clean-out. The 6-in. line running to the flood drain was removed and surrounding soil excavated. The cast iron wye was removed and the remaining drain pipe from Building 5771 was sealed with hydraulic cement on December 1, 1997.

On December 2 and 3, 1997, residual liquids from UST 5771-2 were removed by a vacuum truck. The UST was uncovered and screened for a hazardous atmosphere on December 3, 1997. The tank's atmosphere was determined to be safe, and removal of UST 5771-2 proceeded immediately. The tank was lifted from the excavation and staged nearby on a plastic liner.

Excavation at the UST 5771-2 site was completed on December 4, 1997. Excess fill was removed along with soil determined to be contaminated by visual inspection and field screening. Excavation of visibly-contaminated soil continued southward from the UST pit and the flood drain trench until the northern edge of the sidewalk alongside Building 5771 was reached. No

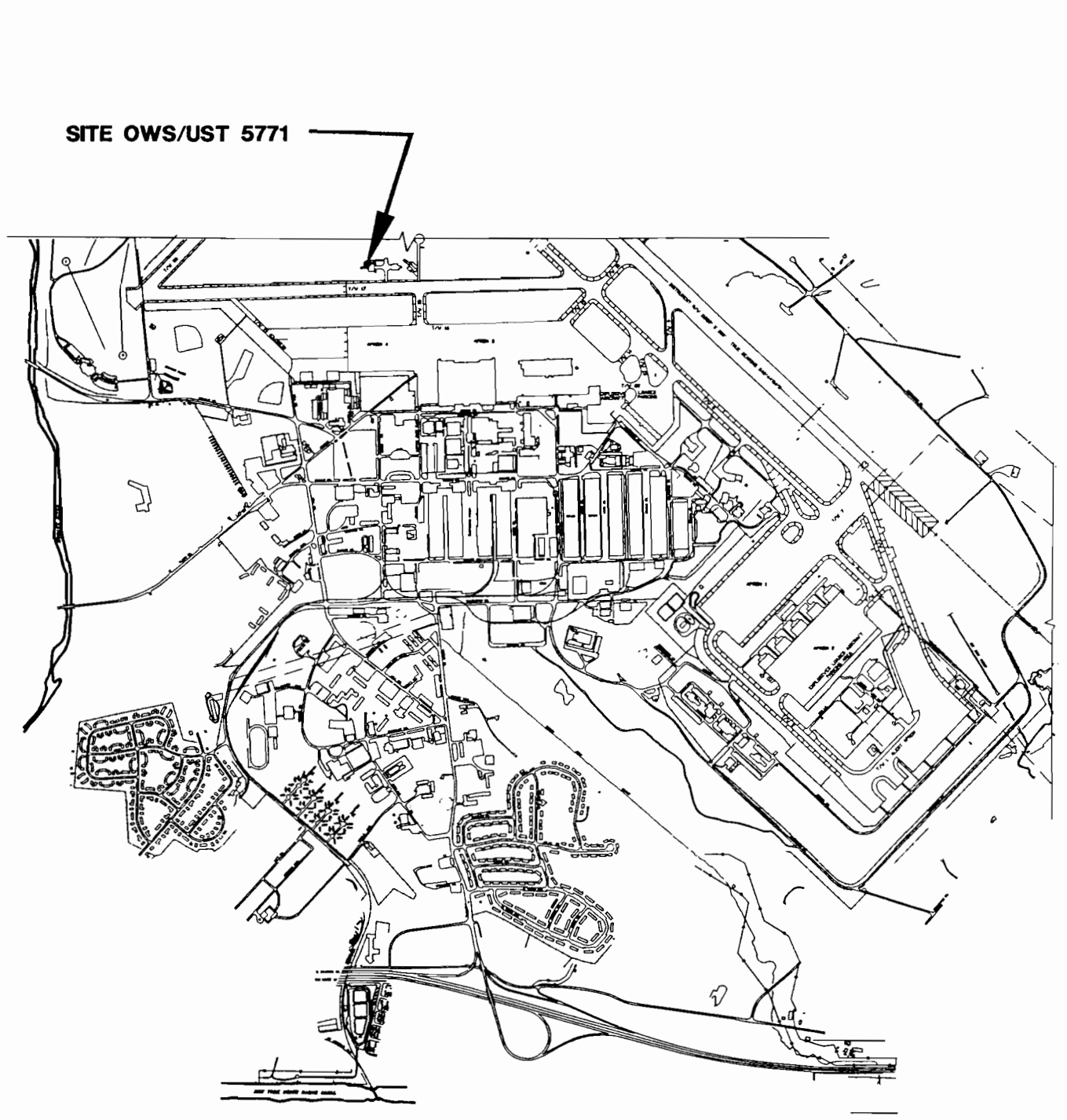


FIGURE 1.13.1

NO.	REVISION	BY	DATE

PROJECT NUMBER:	1701-08
SCALE:	1" = 2000'
DESIGNED BY:	MB
DRAWN BY:	HFP
CHECKED BY:	MB
DATE	
	1/98
	1/98
	1/98

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GRIFFISS AIR FORCE, NEW YORK

LOCATION OF SITE OWS/UST 5771

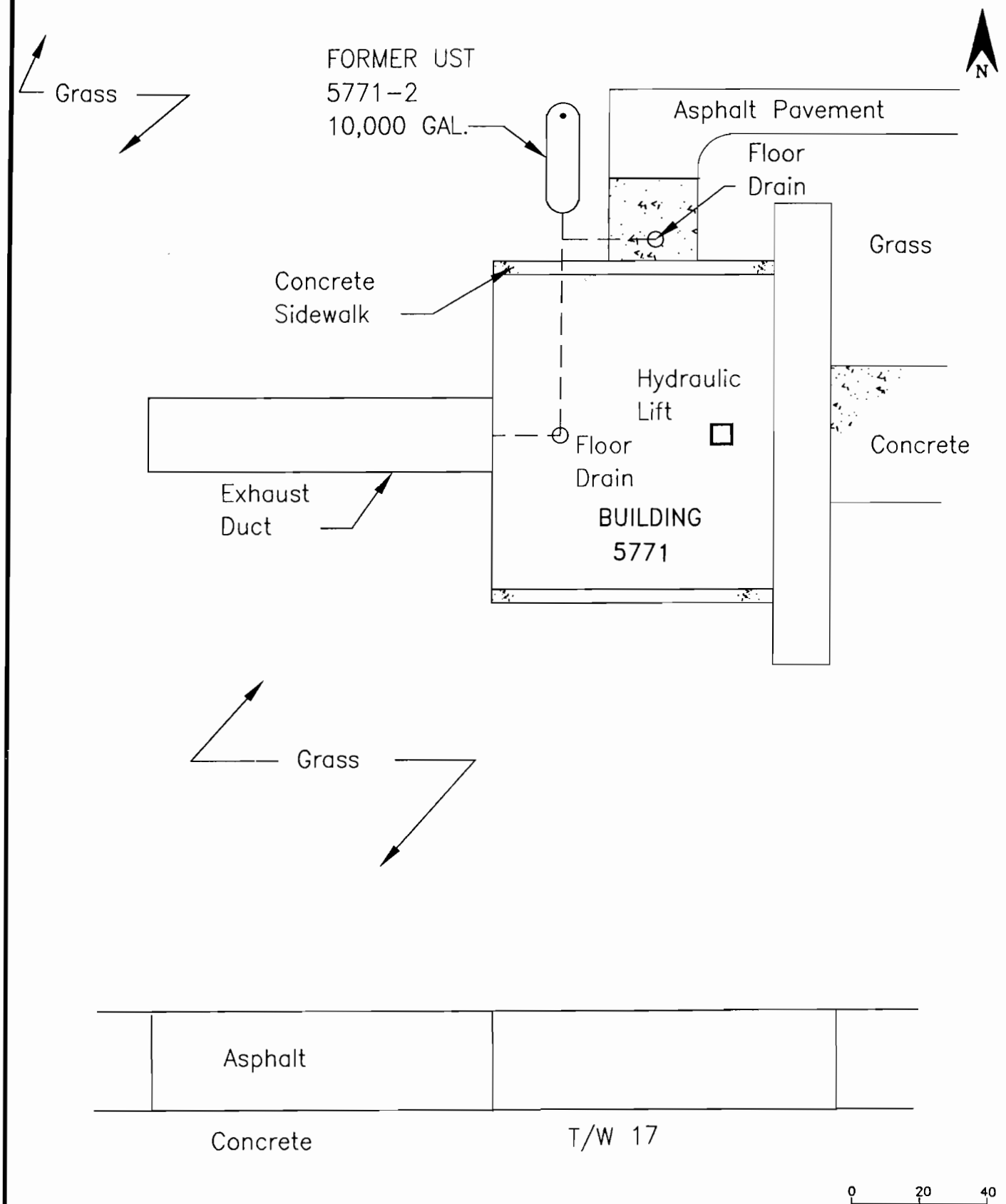


FIGURE 1.13.2

				PROJECT NUMBER: 1701-06	DATE
				SCALE: 1" = 40'	
				DESIGNED BY: MB	4/98
				DRAWN BY: HFP	4/98
				CHECKED BY: MB	4/98
NO.	REVISION	BY	DATE		

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GRIFFISS AIR FORCE BASE - NEW YORK

INITIAL LAYOUT OF SITE OWS/UST 5771

FILENAME: OWS5771A

more soil could be removed without endangering the stability of the foundation. Field observations and soil screening indicated that soil contamination increased as the excavation was extended southward toward Building 5771 (see Sections 1.13.2.1 and 1.13.2.2). The concrete UST pad was found to be too large and deep to be removed whole, or demolished in-place, by the available equipment without extensive additional excavation. Therefore, the pad was left in-place. The UST and flood drain excavations were sampled and secured pending further action. Figure 1.13.3 shows the location and final dimensions of the UST 5771-2 excavation. The main UST pit was approximately 21 ft x 45 ft x 18 ft deep, and the adjacent flood drain excavation was 10 ft x 20 ft x 5 ft deep, as finally configured and sampled prior to backfilling.

Contaminated soil excavated from the UST 5771-2 site was temporarily staged on and under plastic liners on the east side of Building 5771. Soil that was determined to be contaminated was later hauled to the Apron-1 Landfarm for treatment by bioremediation, while soil determined to be clean was used as backfill.

1.13.2.1 UST 5771-2 Field Observations

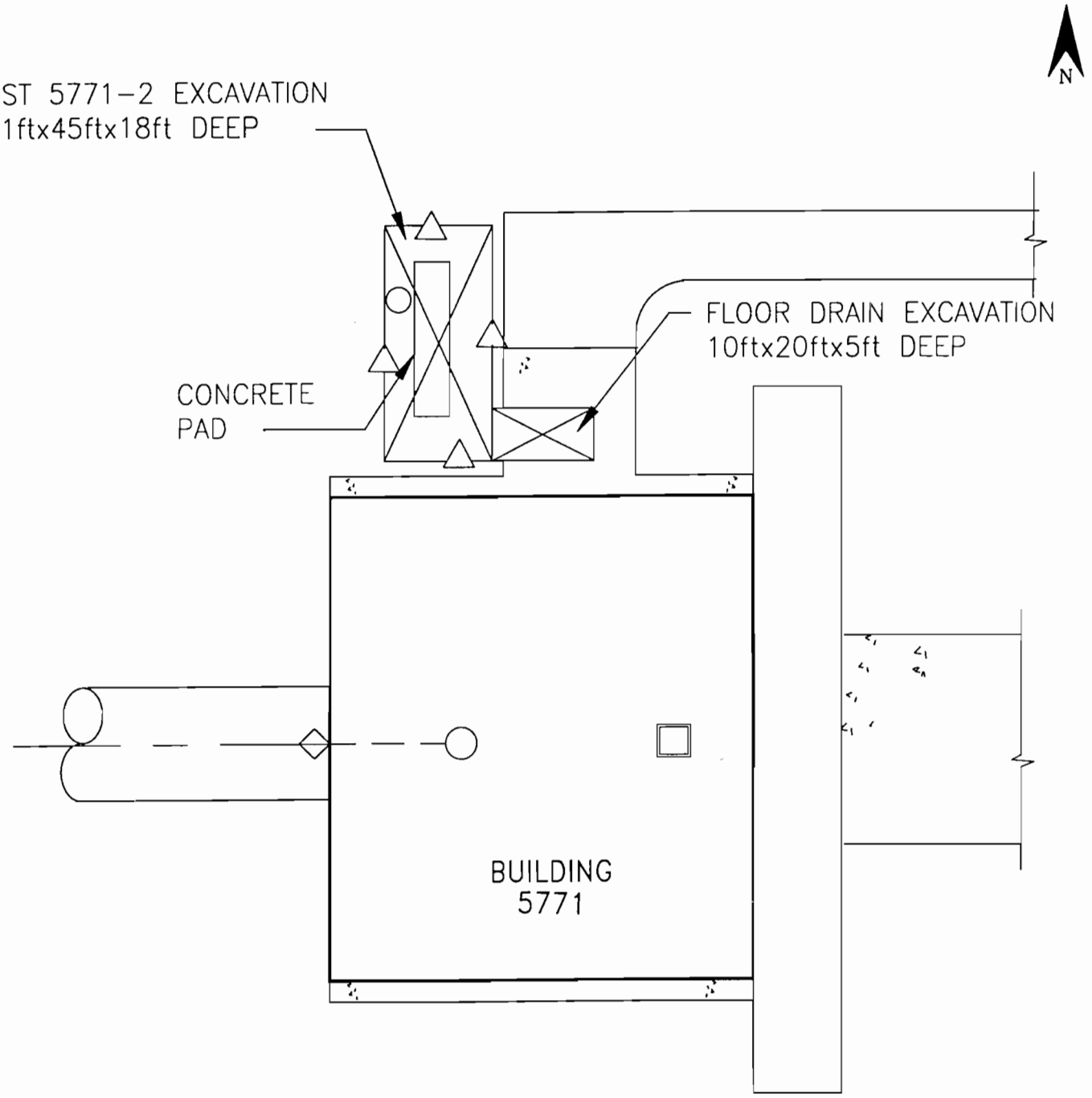
The UST was found to be a 10,000-gal fiberglass tank. The tank itself was in good condition, with no signs of damage. However, connections to the tank, including the 6-in. cast iron fill line, a PVC vent pipe, and a standpipe, were found to show visible evidence of leakage as shown by oily stains on the exterior of the tank. Additionally, soil in the vicinity of the UST was contaminated with petroleum products based on gray soil discoloration and brown oily staining and petroleum odors. Groundwater was encountered at approximately 17 ft BGS, near the north end of the UST, with no sheen or odors noted. However, free product was noted mixed with water seeping into the flood drain excavation from beneath Building 5771 at approximately 4 ft BGS. The source of the free product and the origin of the shallow water (i.e., perched groundwater, melt water, etc.) was not determined.

1.13.2.2 UST 5771-2 Field Screening

A calibrated PID was used to screen the UST before and during removal and excavation activities, and to periodically screen ambient air and site soils for the presence of photoionizable hydrocarbons. Additionally, a calibrated CGI was used to screen the interior atmosphere of the UST prior to removal for percent oxygen and percent LEL. The recorded readings in the UST never exceeded 0% of the LEL. PID readings ranging from 190 to 207 ppmv indicated that soils in the vicinity of the UST were contaminated with petroleum products, as shown in Table 1.13.1. PID readings from the flood drain excavation were observed to increase from < 1 ppmv to 196 ppmv as soil was excavated southward toward Building 5771.

1.13.2.3 UST 5771-2 Soil Sampling

After removal of the UST and surrounding soils, five soil samples were collected from the four walls and floor of the resultant pit using the excavator. The floor sample was collected from the northwestern side of the pit floor at the edge of the concrete pad for the former UST since the



LEGEND

△ COMPOSITE SAMPLE AT SIDEWALL

○ COMPOSITE SAMPLE AT BOTTOM

◇ EXHAUST DUCT SAMPLE

0 15 30

SCALE: 1" = 30'

FIGURE 1.13.3

NO.	REVISION	BY	DATE

PROJECT NUMBER:	1701-08
SCALE:	1" = 30'
DESIGNED BY:	MB
DRAWN BY:	HFP
CHECKED BY:	MB

DATE
4/98
4/98
4/98

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EXCAVATIONS AND SAMPLE LOCATIONS
AT SITE OWS/UST 5771

FILENAME: OWS5771B

Table 1.13.1
Results of Field Screening
OWS/UST 5771 Removal, Griffiss AFB

Date	Screening Location/ Event	PID[a] (ppmv)	LEL[b] (%)	Oxygen[b] (%)	CO (ppm)[c]	
					TWA	Peak
11/25/97	UST 5771-2 Initial Condition					
	Ambient Air	0	0	20.8	NA	NA
	Standpipe	0	0	20.8	NA	NA
12/3/97	UST 5771-2 Removal					
	Ambient Air	0	0	20.9	NA	NA
	Top	16.9	0	20.8	NA	NA
	Middle	NA	0	20.8	NA	NA
	Bottom	NA	0	20.8	NA	NA
	Standpipe	22.8	0	20.8	NA	NA
12/4/97	UST 5771-2 Excavation					
	Direct Soil Screening	6.4 - 207	NA	NA	NA	NA
	Flood Drain Excavation					
	Direct Soil Screening	< 1 - 196	NA	NA	NA	NA
12/9/97	Exhaust Duct Investigation					
	Ambient	NR	NR	NR	4 - 11	22 - 24
	Floor panel No. 1	NR	0	20.3	NA	NA
	Floor panel No. 2	NR	0	20.1	NA	NA
	Direct screen soil, 1 ft BGS	68 - 190	NA	NA	NA	NA

NA Not applicable.
NR Not recorded.
Recommended ranges for safe work:
a) Breathing zone: PID < 25 ppmv
b) Tank interior: CGI < 10% LEL and 19.5 - 23.5 % oxygen
c) Carbon monoxide: CO < 35 ppm 8-hr TWA

pad was left in-place. The samples were submitted to the laboratory for analysis of VOCs and SVOCs.

Table 1.13.2 provides a cross-reference between soil sample location and sample identification numbers. Figure 1.13.3 shows the soil sample locations with respect to the excavation.

Table 1.13.2
Sample Location and Identification Cross-Reference
UST 5771-2 Soil Sampling
Site 5771-2, UST Removal, Griffiss AFB, NY

Sample I.D.	Sample Location
G-SC-5771-USTN	Soil composite, north sidewall, 11 - 15 ft BGS
G-SC-5771-USTS	Soil composite, south sidewall, 3 - 6 ft BGS
G-SC-5771-USTE	Soil composite, east sidewall, 9 - 15 ft BGS
G-SC-5771-USTW	Soil composite, west sidewall, 9 - 15 ft BGS
G-SC-5771-USTB	Soil composite, pit floor, 17 ft BGS
G-SC-5771-USTP	Soil composite, soil stockpile

1.13.2.4 UST 5771-2 Soil Sampling Procedure

Soil samples were collected according to the NYSDEC requirements, as set forth in the STARS Guide, and the Sampling Guidelines and Protocols Manual (September 1992).

The UST 5771-2 soil samples were collected from the bucket of the excavator using decontaminated stainless-steel spoons. Soil obtained for analysis of SVOCs was composited by mixing in a decontaminated stainless-steel bowl. Soil obtained for analysis of VOCs was placed directly into sample containers and was not composited. The samples were collected in pre-cleaned, labeled sample containers, and placed in a cooler with ice. The samples were hand-carried and delivered to the RECRA Environmental, Inc., on-site laboratory for analysis. The exhaust duct sample collected later (see Section 1.13.2.6) was collected directly with decontaminated stainless-steel equipment as for the UST samples. However, the sample was analyzed by the off-site laboratory and handled as follows. Prior to shipment to the laboratory, the sample was secured with packing material, fresh ice was placed in the cooler, and the cooler was taped shut and custody sealed. The sample was shipped under Chain-of-Custody to RECRA Environmental, Inc., a New York State certified laboratory, in Amherst, New York, for analysis.

1.13.2.5 Analytical Results of UST 5771-2 Soil Samples

The excavation samples were analyzed using EPA Methods 8021 (VOCs) and 8270 (SVOCs). Table 1.13.3 presents the analytical results of the soil sampling. The Guidance Values and quantitation limits for each compound of interest are provided in the table for comparison purposes. The Chain-of-Custody Forms are provided in Appendix C. The laboratory data sheets for the samples are provided in Appendix D. Analytical results show the following:

- Nine VOC analytes exceeded STARS Guidance Values in the sidewall sample, including: ethylbenzene; o-xylene; m-xylene; mixed xylenes; n-propylbenzene; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; n-butylbenzene; and sec-butylbenzene. No other VOCs exceeded Guidance Values in the samples.

- Six SVOC analytes exceeded STARS Guidance Values in the east sidewall sample, including: pyrene, benzo(a)anthracene, benzo(b)fluoranthene, chrysene, benzo(a)pyrene, and benzo(g,h,i) perylene. Naphthalene exceeded its Guidance Value in the south sidewall sample. No other SVOCs exceeded Guidance Values in the samples.

1.13.2.6 Exhaust Duct Drain System Investigation

An investigation of the drainage system beneath the exhaust duct portion of Building 5771 was performed to evaluate the system for potential contamination, and as a potential source for the contaminated liquids observed entering the UST 5771-2 excavation by way of the 6-in. cast iron pipeline. To investigate the system, two panels were removed from inside the duct to give access

Table 1.13.3
Analytical Results (ppb) - Soil Sampling, December 4, 1997 - Site 5771 UST, Griffiss AFB, NY

Semi Volatile Compounds, SW8270 (STARS list)	Guidance Values (1)	STARS Specified PQL for Soil (2)	GSC5771USTN	GSC5771USTS	GSC5771USTE	GSC5771USTW	GSC5771USTB	GSC5771USTP
Anthracene	1,000	330	N/D	N/D	N/D	N/D	N/D	N/D
Fluorene	1,000	330	N/D	N/D	N/D	N/D	N/D	N/D
Phenanthrene	1,000	330	N/D	210 F	400	N/D	N/D	N/D
Pyrene	1,000	330	N/D	320 F	860	N/D	N/D	N/D
Acenaphthene	400	330	N/D	N/D	N/D	N/D	N/D	N/D
Benzo(a)anthracene	0.04	330	N/D	200 F	540	N/D	N/D	N/D
Fluoranthene	1,000	330	N/D	310 F	720	N/D	N/D	N/D
Benzo(b)fluoranthene	0.04	330	N/D	240 F	690	N/D	N/D	N/D
Benzo(k)fluoranthene	0.04	330	N/D	N/D	200 F	N/D	N/D	N/D
Chrysene	0.04	330	N/D	210 F	440	N/D	N/D	N/D
Benzo(a)pyrene	0.04	330	N/D	190 F	490	N/D	N/D	N/D
Benzo(g,h,i)perylene	0.04	330	N/D	N/D	360	N/D	N/D	N/D
Indeno(1,2,3-cd)pyrene	0.04	330	N/D	N/D	310 F	N/D	N/D	N/D
Dibenz(a,h)anthracene	1,000	330	N/D M	N/D M	N/D M	N/D M	N/D M	N/D M
Naphthalene	200	330	N/D	1100	N/D	N/D	N/D	N/D

(1) STARS Guidance Value: TCLP Alternative Guidance Value.
(2) Represents the STARS-Specified Practical Quantitation Limit for SW8270. When the Guidance Value or Standard is below the quantitation limit, achieving the quantitation limit is considered acceptable for meeting the Guidance Value or Standard. N/D = Non-detect, - = No value reported.

Table 1.13.3
Analytical Results (ppb) - Soil Sampling, December 4, 1997 - Site 5771 UST, Griffiss AFB, NY

Volatile Compounds, SW8021 (STARS list)	Guidance Values (1)	STARS Specified PQL for Soil (2)	GSC5771USTN	GSC5771USTS	GSC5771USTE	GSC5771USTW	GSC5771USTB	GSC5771USTP
Benzene	14	2	N/D	N/D	N/D	N/D	N/D	N/D
Ethylbenzene	100	2	N/D	640	N/D	N/D	N/D	N/D
Toluene	100	2	33	N/D	18	29	55	36
O-Xylene	100	2	N/D	990	N/D	N/D	N/D	N/D
M-Xylene	100	2	N/D	6300	N/D	N/D	N/D	N/D
P-Xylene	100	2	N/D	N/D	N/D	N/D	N/D	N/D
Mixed Xylenes	100	2	N/D	7300	N/D	N/D	N/D	N/D
Isopropylbenzene	100	1	N/D	N/D	N/D	N/D	N/D	N/D
N-Propylbenzene	100	1	N/D	680	N/D	N/D	N/D	N/D
P-Isopropyl Toluene	100	1	N/D	N/D	N/D	N/D	N/D	N/D
1,2,4Trimethylbenzene	100	1	N/D	14000	N/D	N/D	N/D	N/D
1,3,5Trimethylbenzene	100	1	N/D	11000	N/D	N/D	N/D	N/D
N-Butylbenzene	100	1	N/D	13000	N/D	N/D	N/D	N/D
Sec-Butylbenzene	100	1	N/D	3000	N/D	N/D	N/D	N/D
T-Butylbenzene	100	1	N/D	N/D	N/D	N/D	N/D	N/D
Methyl T-Butyl Ether (MTBE)	100	1	N/D	N/D	N/D	N/D	N/D	N/D

(1) STARS Guidance Value: TCLP Alternative Guidance Value.
(2) Represents the STARS-Specified Practical Quantitation Limit for SW8021. When the Guidance Value or Standard is below the quantitation limit, achieving the quantitation limit is considered acceptable for meeting the Guidance Value or Standard. N/D = Non-detect, - = No value reported.

to the soil below. An access pit about 2 ft x 2 ft in area was then excavated to a depth of 1 ft BGS beneath the duct, thereby exposing the perforated pipe that collected drainage from the exhaust duct. Strong solvent odors were noted from the soil and photographs show visible gray staining and oily sheen. Soil screening with a calibrated PID obtained readings from 68 to 190 ppmv from this soil, as summarized in Table 1.13.1.. Dye was introduced to the drain pipe and was observed shortly thereafter exiting from the 6-in. cast iron pipeline in the UST excavation. A sample of the visibly-contaminated soil was collected for analysis of VOCs and SVOCs. The identification and location cross-reference for this sample is provided in Table 1.13.4. The approximate location of the sample is shown on Figure 1.13.3. The sample was collected and handled as described in Section 1.13.2.4. The sample was analyzed by EPA Methods 8240B (VOCs) and 8270 (SVOCs). The analytical results for the sample are presented in Table 1.13.5. The Guidance Values and quantitation limits for each compound of interest are provided in the table. The Chain-of-Custody Form is provided in Appendix C and the original laboratory data sheets are provided in Appendix D.

Table 1.13.4
Sample Location and Identification Cross-Reference
Exhaust Duct Soil Sampling, Site 5771-2
Griffiss AFB, NY

Sample I.D.	Sample Location
G-SC-UST-5771	Soil composite, 1 ft BGS, beneath exhaust duct

The analytical results showed the following:

- Three VOC analytes 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and p-cymene (p-isopropyltoluene) were detected at levels exceeding the STARS Guidance Values. No other VOCs were detected.

- Six SVOC analytes benzo(a)anthracene, fluoranthene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and benzo(a)pyrene were detected at levels equal to or exceeding the STARS Guidance Values.

Once the investigation of the exhaust duct was completed, the drainage line was plugged and sealed, the access pit refilled, and the duct panels replaced.

1.13.3 Corrective Actions and Closure Activities

Due to the extensive contamination detected during the OWS/UST removal, further overexcavation of contaminated soils was determined to not be a practical means of remediating the site, and the excavation was closed without further corrective actions or closure activities. No further overexcavation was performed at UST 5771-2 beyond the removal of fill materials and visibly stained soils that extended southward toward Building 5771.

Exhaust Duct Sample (102)

Table 1.13.5
Analytical Results (ppb) - Soil Sampling, December 9, 1997 - Site 5771 UST, Griffiss AFB, NY

Volatile Compounds (SW8240B+STARSlist)	Guidance Values (1)	STARS Specified PQL for Soil (2)	GSCUST5771					
1,1,1-Trichloroethane	800[c]	-	N/D					
1,1,2,2-Tetrachloroethane	600[c]	-	N/D	M				
1,1,2-Trichloroethane	100,000[b]	-	N/D					
1,1-Dichloroethane	200[c]	-	N/D					
1,1-Dichloroethene	400[c]	-	N/D					
1,2,3-Trichloropropane	400[c]	-	N/D	M				
1,2-Dichloroethane	100[c]	-	N/D					
1,2-Dichloropropane	84,000[b]	-	N/D					
Methyl ethyl ketone (2-Butanone)	300[c]	-	N/D					
2-Chloroethyl vinyl ether	-	-	N/D					
2-Hexanone	-	-	N/D					
Methyl isobutyl ketone (4-Methyl-2-pentanone)	1,000[c]	-	N/D					
Acetone	200[c]	-	N/D					
Benzene	14[a]	2	N/D					
Bromodichloromethane	92,000[b]	-	N/D					
Bromoform	720,000[b]	-	N/D					
Bromomethane	2,900,000[b]	-	N/D					

(1) STARS, Federal or NY State soil clean-up objectives. The most stringent of the three clean-up objectives was selected as the Guidance Value. The superscripts are defined as follows:
- (a) STARS Guidance Value: TCLP alternative Guidance Value.
- (b) Federal Requirements: EPA Risk based concentrations for industrial soil, Region 3.
- (c) State Requirements: Recommended state soil cleanup objectives from base wide remedial investigation.

(2) Represents the STARS-specified Practical Quantitation Limit for SW8021 (or SW8020). When the Guidance Value or Standard is below the quantitation limit, achieving the quantitation limit is considered acceptable for meeting the Guidance Value or Standard. N/D = Non-detect, - = No value reported.

Table 1.13.5 Exhaust Duct Sample

Analytical Results (ppb) - Soil Sampling, December 9, 1997 - Site 5771 UST, Griffiss AFB, NY

Volatile Compounds (SW8240B+STARSlist)	Guidance Values (1)	STARS Specified PQL for Soil (2)	GSCUST5771					
Carbon disulfide	2,700[c]	-	N/D					
Carbon tetrachloride	600[c]	-	N/D R					
Chlorobenzene	1,700[c]	-	N/D					
Chloroethane	1,900[c]	-	N/D					
Chloroform	300[c]	-	N/D					
Chloromethane	440,000[b]	-	N/D					
cis-1,2-Dichloroethylene	$2x10^{8}$ [b]	-	N/D					
cis-1,3-Dichloropropene	-	-	N/D					
Dibromochloromethane	-	-	N/D					
Ethylbenzene	100[a]	2	N/D					
Methylene chloride	100[c]	-	N/D					
Styrene	$4.1x10^{8}$ [b]	-	N/D					
Tetrachloroethylene (PCE)	1,400[c]	-	N/D					
Toluene	100[a]	2	N/D					
trans-1,2-Dichloroethene	300[c]	-	N/D					
trans-1,3-Dichloropropene	-	-	N/D					
Vinyl acetate	$1.0x10^{9}$ [b]	-	N/D					
Vinyl chloride	200[c]	-	N/D					

(1) STARS, Federal or NY State soil clean-up objectives. The most stringent of the three clean-up objectives was selected as the Guidance Value. The superscripts are defined as follows:
- (a) STARS Guidance Value: TCLP alternative Guidance Value.
- (b) Federal Requirements: EPA Risk based concentrations for industrial soil, Region 3.
- (c) State Requirements: Recommended state soil cleanup objectives from base wide remedial investigation.

(2) Represents the STARS-specified Practical Quantitation Limit for SW8021 (or SW8020). When the Guidance Value or Standard is below the quantitation limit, achieving the quantitation limit is considered acceptable for meeting the Guidance Value or Standard. N/D = Non-detect, - = No value reported.

Exhaust + Duct Sample

Table 1.13.5

Analytical Results (ppb) - Soil Sampling, December 9, 1997 - Site 5771 UST, Griffiss AFB, NY

Volatile Compounds (SW8240B+STARSlist)	Guidance Values (1)	STARS Specified PQL for Soil (2)	GSCUST5771					
m-Xylene (1,3-Dimethylbenzene)	100[a]	2	N/D					
o-Xylene (1,2-Dimethylbenzene)	100[a]	2	N/D					
p-Xylene (1,4-Dimethylbenzene)	100[a]	2	N/D					
Xylenes, total	100[a]	2	N/D					
Trichloroethylene (TCE)	700[c]	-	N/D					
1,2,4-Trimethylbenzene	100[a]	1	2300 M					
1,3,5-Trimethylbenzene (Mesitylene)	100[a]	1	4900 M					
n-Propylbenzene	100[a]	1	N/D M					
p-Cymene (p-Isopropyltoluene)	100[a]	1	6600					
Isopropylbenzene (Cumene)	100[a]	1	N/D M					
t-Butylbenzene	100[a]	1	N/D					
sec-Butylbenzene	100[a]	1	N/D					
n-Butylbenzene	100[a]	1	N/D					
tert-Butyl methyl ether (MTBE)	1000[a]	-	N/D					

(1) STARS, Federal or NY State soil clean-up objectives. The most stringent of the three clean-up objectives was selected as the Guidance Value. The superscripts are defined as follows:
- (a) STARS Guidance Value: TCLP alternative Guidance Value.
- (b) Federal Requirements: EPA Risk based concentrations for industrial soil, Region 3.
- (c) State Requirements: Recommended state soil cleanup objectives from base wide remedial investigation.

(2) Represents the STARS-specified Practical Quantitation Limit for SW8021 (or SW8020). When the Guidance Value or Standard is below the quantitation limit, achieving the quantitation limit is considered acceptable for meeting the Guidance Value or Standard. N/D = Non-detect, - = No value reported.

Exhaust Duct Sample

Table 1.13.5
Analytical Results (ppb) - Soil Sampling, December 9, 1997 - Site 5771 UST, Griffiss AFB, NY

Semi Volatile Compounds, SW8270 (STARS list)	Guidance Values (1)	STARS Specified PQL for Soil (2)	GSCUST5771					
Anthracene	1,000	330	180 F					
Fluorene	1,000	330	N/D M					
Phenanthrene	1,000	330	390					
Pyrene	1,000	330	800					
Acenaphthene	400	330	N/D					
Benzo(a)anthracene	0.04	330	630					
Fluoranthene	1,000	330	1000					
Benzo(b)fluoranthene	0.04	330	850					
Benzo(k)fluoranthene	0.04	330	890					
Chrysene	0.04	330	700					
Benzo(a)pyrene	0.04	330	410					
Benzo(g,h,i)perylene	0.04	330	290 F					
Indeno(1,2,3-cd)pyrene	0.04	330	290 F					
Dibenz(a,h)anthracene	1,000	330	N/D					
Naphthalene	200	330	N/D R					

(1) STARS Guidance Value: TCLP Alternative Guidance Value.
(2) Represents the STARS-Specified Practical Quantitation Limit for SW8270. When the Guidance Value or Standard is below the quantitation limit, achieving the quantitation limit is considered acceptable for meeting the Guidance Value or Standard. N/D = Non-detect, - = No value reported.

1.13.3.1 Site Restoration

The UST pit was backfilled with clean fill in 2-ft lifts and compacted to 85% volume. The pit was filled to grade with the surrounding surface and re-seeded. The access pit below the exhaust duct was refilled with clean fill and the duct panels were replaced.

1.13.3.2 Disposal

A total of 127 yd^3 of contaminated soil was hauled to the Apron-1 Landfarm for bioremediation treatment. Approximately 490 yd^3 of the removed soil was determined to be uncontaminated and was used as clean backfill for the UST pit. Clean rubble totaling 15 yd^3 was staged at the WSA pending disposal. A total of 18,500 gal of water contaminated by petroleum hydrocarbons was disposed of by ABSCOPE Environmental, Inc., on September 25, December 1, and December 2, 1997. The former UST was awaiting decontamination, decommissioning, and disposal as of the time of this report. Copies of waste receipts and manifests are provided in Appendix A. Tank receipts are provided in Appendix B.

1.13.4 Site Summary

A 10,000-gal fiberglass-reinforced UST and associated piping was removed from the vicinity of the north side of Building 5771. No associated OWS was found at this site. The UST is stored at an on-site bermed temporary staging area, awaiting decontamination, decommissioning, and off-site disposal. Based on field observations and analytical results, soils to the east and south of the former UST remain contaminated by petroleum products. The drainage system below the exhaust duct at Building 5771 was also investigated. Field observations and analytical data show that soils beneath the exhaust duct are contaminated with petroleum products. The extent of the contamination associated with the UST and the exhaust duct has not been defined. Overexcavation of contaminated soils was determined to not be practical for remediating the site. In addition, further overexcavation would impact the Bldg 5771 foundation.

Based on the results of the UST 5771-2 removal and the exhaust duct investigation, PEER Consultants, P.C., recommends that further investigative and corrective activities be conducted at the site. The site has been reported to the NYSDEC as a state spill and assigned the Spill No. 9713632.

Investigative activities should include:

- Subsurface soil sampling using geoprobe technique to sample to the east and south of former UST 5771-2 and surrounding the exhaust duct to establish the extent of contamination associated with the former UST and the exhaust duct. This would require sampling below the slab for Building 5771. At least one sample should be collected from below the former UST pad to evaluate possible contamination.

- Groundwater samples should be collected and analyzed in a downgradient direction from the former UST and the exhaust duct to evaluate and characterize the nature and extent of any associated groundwater contamination.

- The site should be investigated to confirm that an OWS does not exist. The methods of investigation could include geophysical testing, test pitting, historical records searches, and former site personnel interviews.

Corrective actions should include demolishing the exhaust duct and blast shield so that petroleum-contaminated soils associated with the drainage line beneath the duct can be removed. The drainage line should be either excavated and removed, or drained, flushed, and abandoned in-place by plugging and sealing with hydraulic cement. The former UST pad may need to be removed if contamination is found underneath. Additional corrective action options would depend on the results of the proposed additional investigations.

1.13.5 Photodocumentation

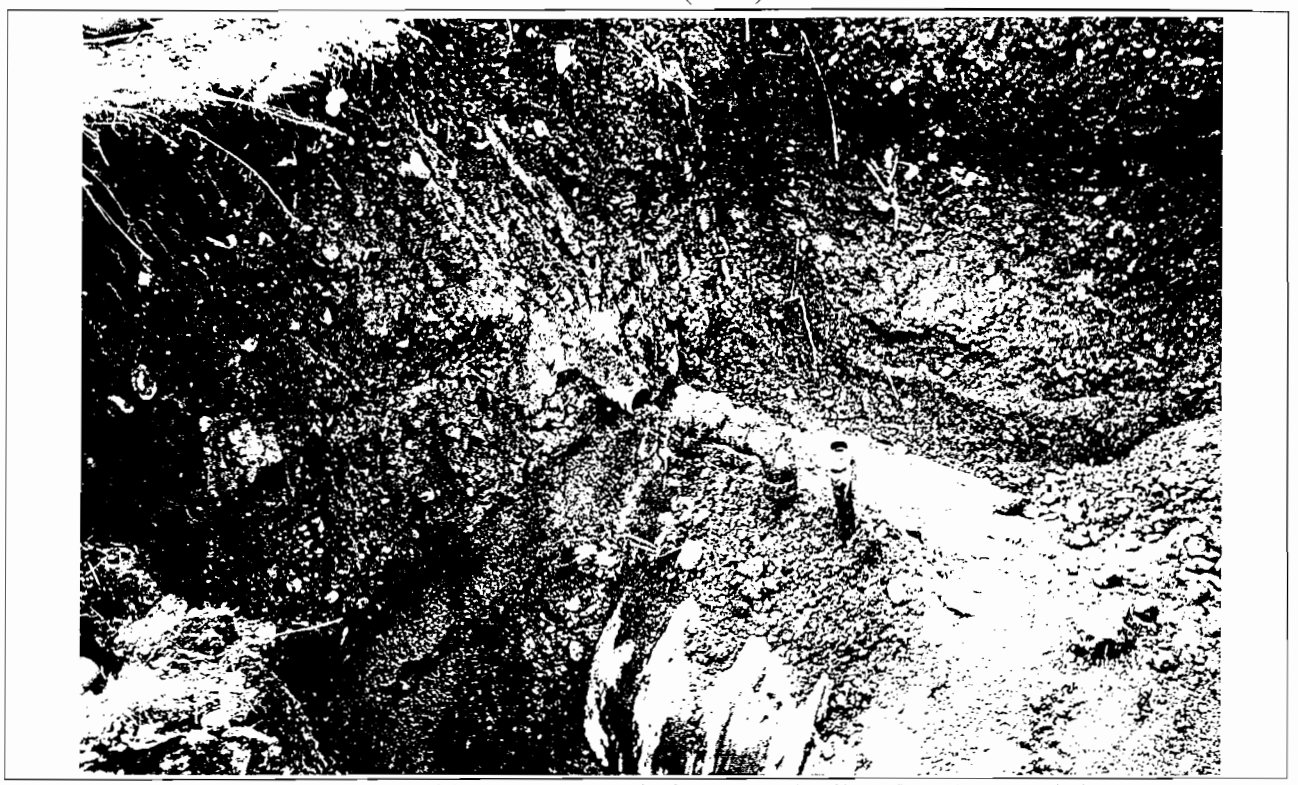
Site 5771-2



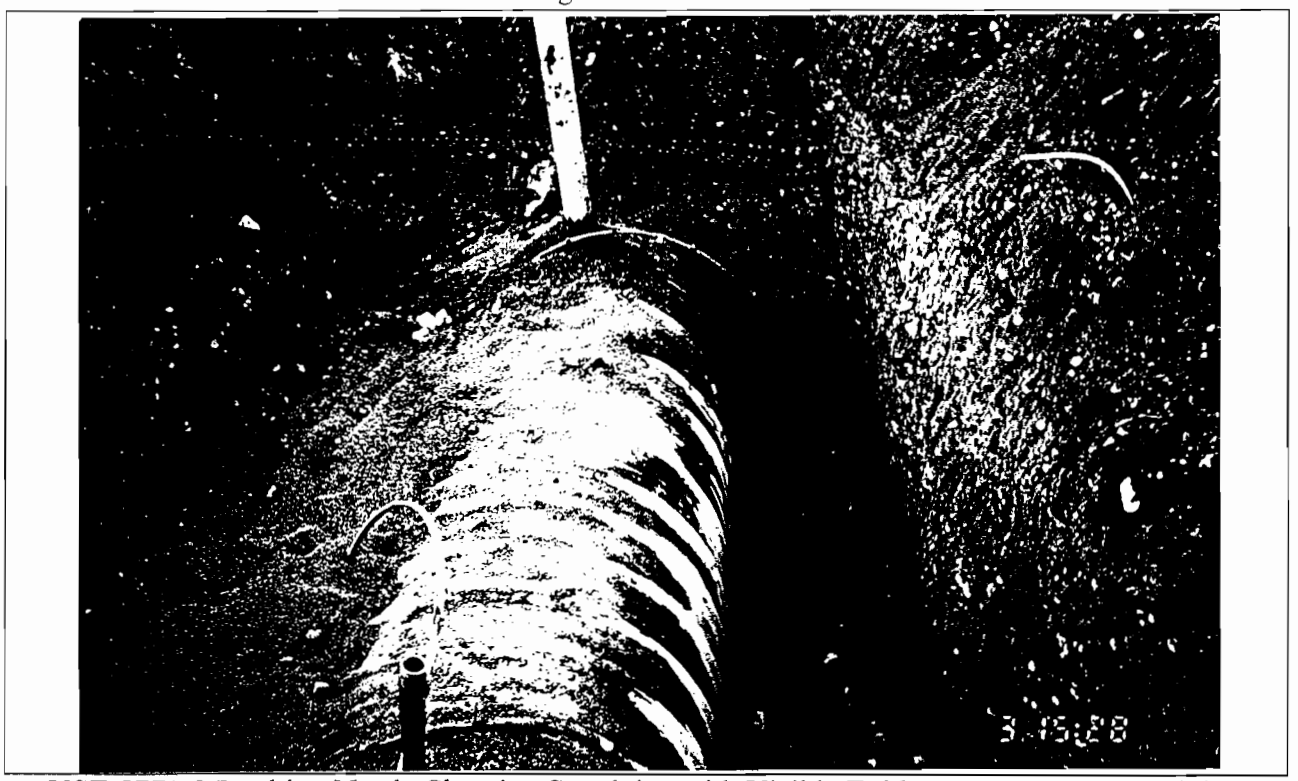
Building 5771 Seen from North Side Showing Standpipe for UST 5771-2
in Foreground and Exhaust Duct in Background



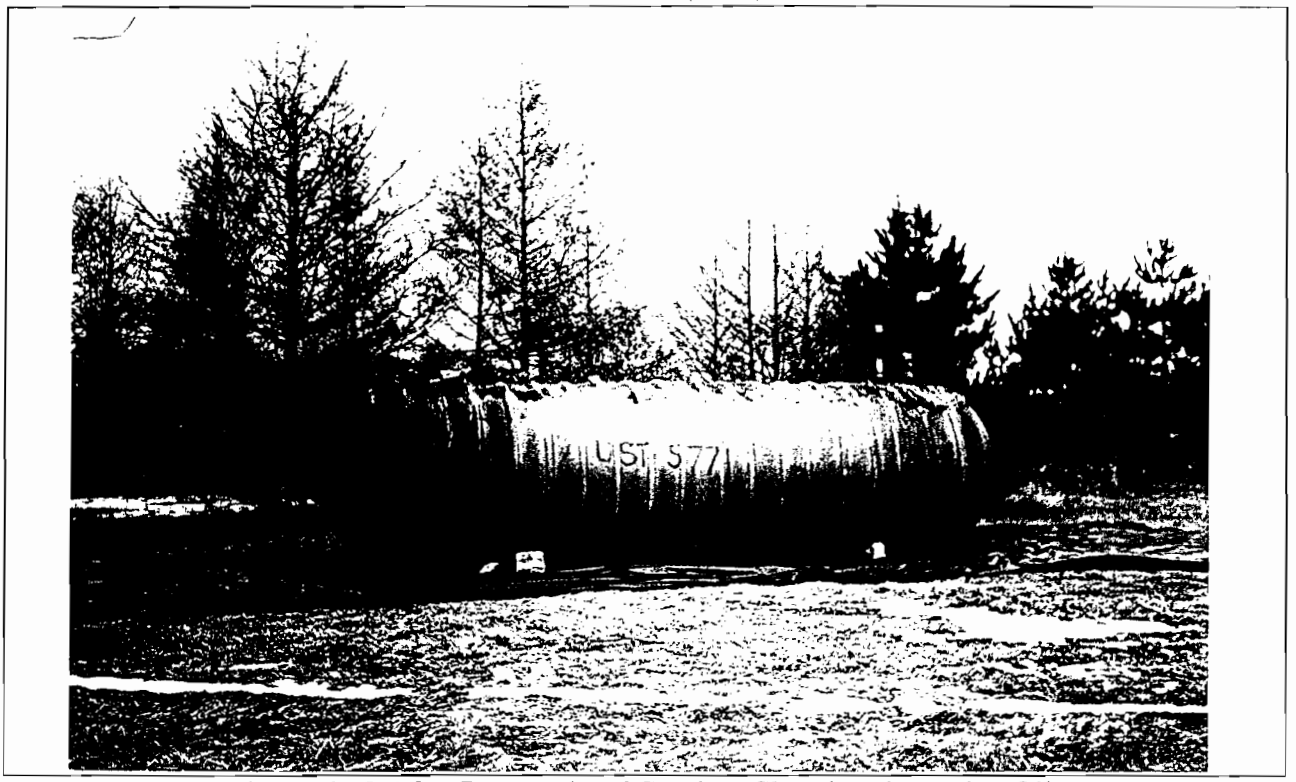
Leaking Clean-Out and Wye in 6-in. Cast Iron Fill Line Near the South End of UST 5771-2,
Shows Flood Drain Line Extending to the East, Oily Scum on Leaking Water



South End of UST 5771-2 Uncovered Showing Pipeline Cut, Soil Staining, Staining on Exterior of UST



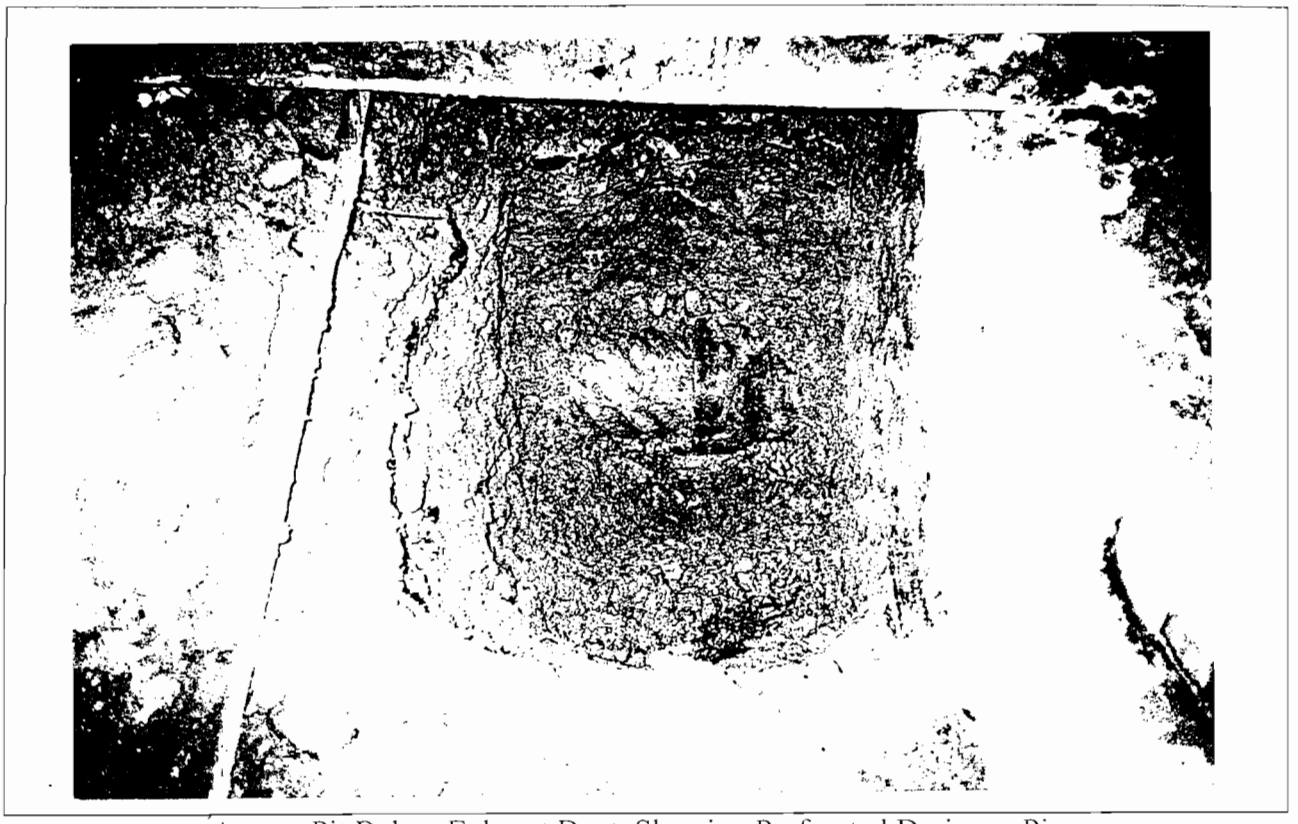
UST 5771-2 Looking North, Showing Standpipe with Visible Evidence of Leakage, Staining of the UST, and Soil Staining on the Excavation Walls



UST 5771-2 After Removal and Staging, Showing Extensive Oily Staining on Both Ends of Exterior



Removing Panels in Floor of Exhaust Duct



Access Pit Below Exhaust Duct, Showing Perforated Drainage Pipe
Discolored Soil, and Oily Sheen



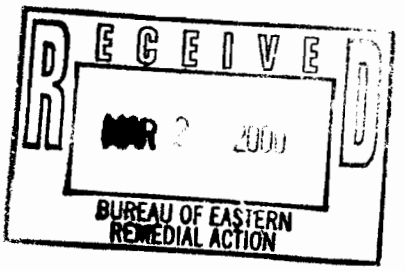
Site Following Restoration

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

08 MAR 2000

MEMORANDUM FOR Mr. Doug Pocze
USEPA - Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

Mr. Sal Ervolina, Director
Mr. Jonathan Greco, Project Manager
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010



FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Building 133 Area of Concern (AOC)

1. In reference to comments provided by the US Environmental Protection Agency by letter dated December 14, 1999 and discussions held on February 23, 2000, the following is provided to clarify ongoing remedial activities and to present an outline of future proposed activities at the Building 133 AOC site:

   a. The quarterly groundwater monitoring reports for Building 133 that you received in 1999 were the results of investigations required by the NYS Department of Environmental Conservation, Region 6 Spills Program for spill # 970217. This spill number was assigned to the site on May 12, 1997 to track the petroleum releases encountered during the underground concrete storage tank removal actions. These reports only address this spill number and not the closure of the AOC.

   b. As indicated in the Quarterly Groundwater Monitoring Report, Second Round, dated May 1999, additional soil contamination located south and east of Building 133 that was not addressed during previous remedial activities will be removed in the spring/summer of this year. Figures 4, 5, and 6 of the May 1999 report show the lateral and vertical extent of the contamination. Once the removal actions are completed, confirmatory grab and composite sidewall and bottom soil samples will be

collected. The grab samples will be analyzed using the EPA SW8260B, SW8270C, and SW6010B/7471A methods and the composite samples will be analyzed in accordance with STARS requirements.

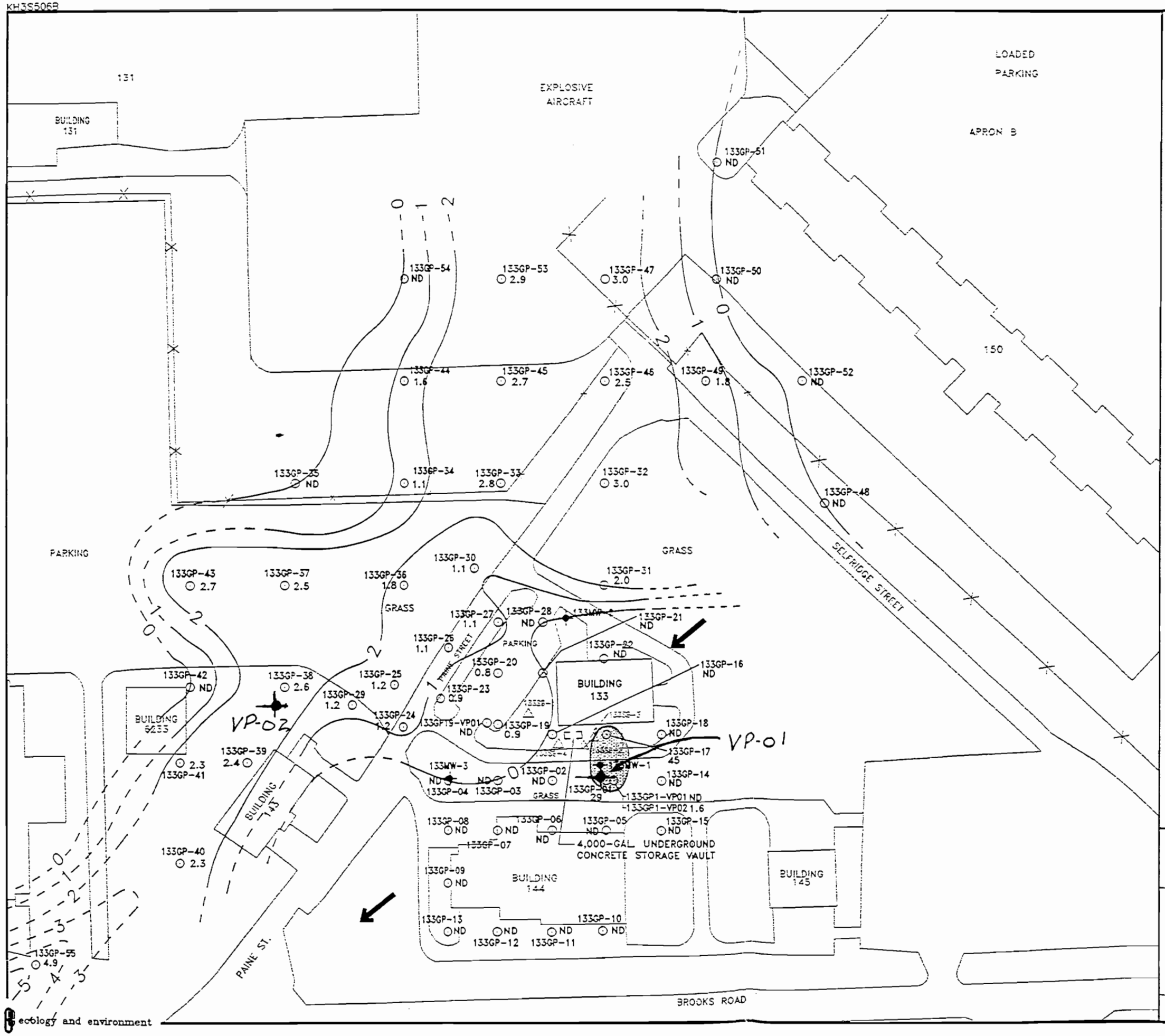
c. In addition to the above, groundwater investigations will be performed at the site this spring to determine the vertical extent of the trichloroethene (TCE) groundwater contamination at the site. A Geoprobe groundwater screening survey (methodology similar to the Building 774/Landfill 6 groundwater investigations) will be performed at two locations (VP-01 & VP-02) as indicated on the attached figure. Vertical profiling of the groundwater will be performed in each location using Hydropunch techniques from the surface of the water table to the top of bedrock. The placement of the permanent well screen in the vertical profile wells will be determined in the field based on the results of the groundwater screenings samples. If the results of the screening samples indicate no contamination above groundwater ARARs, permanent wells will not be installed and the bore holes will be decommissioned. The groundwater screening samples will be analyzed using the EPA 524.2 and 525.2 methods.

2. If you have any questions, please contact Mike Wojnas, 315-330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment:
Building 133 Site Plan

KH3S506B



LEGEND

- SUPPLEMENTAL INVESTIGATION MONITORING WELL
- 1.1 — SUPPLEMENTAL INVESTIGATION GEOPROBE GROUNDWATER SCREENING SAMPLE WITH TCE CONCENTRATION IN µg/L
- RI SOIL BORING/GRAB GROUNDWATER SAMPLE
- DIRECTION OF GROUNDWATER FLOW
- ND — NOT DETECTED
- TCE — TRICHLOROETHENE
- CONCENTRATION CONTOUR INTERVAL = 1 µg/L
- TCE CONCENTRATION 30–45 µg/L

NOTES:

1) GROUNDWATER ELEVATIONS RECORDED IN AUGUST 1997
2) PROPOSED GEOPROBE LOCATIONS WILL BE SAMPLED IN NOVEMBER 1997

N

SCALE IN FEET

0 100 200 300

UNITED STATES AIR FORCE
GRIFFISS AIR FORCE BASE
ROME, NEW YORK

Figure 4.11.4.6-2
SUPPLEMENTAL INVESTIGATION
GEOPROBE GROUNDWATER SCREENING
SAMPLE RESULT MAP FOR TCE
BUILDING 133 STORAGE VAULT

ecology and environment

PLOTTED DATE: 09/16/98 MLH

J G

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
Bureau of Habitat, Room 576
50 Wolf Road, Albany, New York 12233-4756
Phone: (518) 457-6178 FAX: (518) 485-8424

John P. Cahill
Commissioner

MEMORANDUM

TO: Jonathan Greco, DER Bureau of Eastern Remedial Action

FROM: Christina Dowd, DFWMR Hazardous Waste Site Evaluation Unit

RE: Griffiss Air Force Base, ID# 6-33-006
Draft Records of Decision for Landfills 2/3, 5 and 7 AOCs prepared by the Air Force and dated February 2000

DATE: March 2, 2000

I reviewed the document(s) referenced above. I have the following comments.

Given that there have been no significant changes from the Proposed Plans for these AOCs, I have no specific comments on the draft RODs. The proposed remedies are acceptable as outlined in my November 10, 1999 memo, and I concur with the RODs.

If you have any questions or comments, please call me at (518) 457-9278.

cc: S. Sanford (PC, RK, ET)
LeBarron
M. Pensak, USEPA BTAG

RECEIVED
MAR 14 2000
BUREAU OF EASTERN REMEDIAL ACTION

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

March 1, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

Attention: Mr. Mark Rabe

RECEIVED
MAR 6 2000
BUREAU OF EASTERN
REMEDIAL ACTION

Re: Wash Waste System
Closure Report Submittal
Volume II
Rome (C), Oneida County

Dear Mr. Rabe:

I have reviewed your consultant's **Wash Waste System Closure Volume II Report** dated December 1999 and have the following comments:

The work was performed in 1997 and the report was not submitted until January 2000.

1. <u>Section 2.1 Nosedock 1 through 5 Buildings 782 through 786</u>
In section 2.1.1.3 "Previous investigations" referral is made to open spill 9413416. I find two open spills in this area, 9109658 and 9413416, and no recent submittals from AFBCA/DA-Griffiss regarding either spill. Is there any ongoing investigation/remediation for these two spills?

This section also makes mention of a trench fire incident that occurred in 1990 in an area not near a fuel line. Is this area of flammable groundwater under investigation in any open spill?

I have a major concern that, as mentioned in section 2.1.2, cleanup activities could not be completed due to construction of a concrete loading dock by a tenant. Tenant activities should be controlled by the landlord and not be allowed to interfere with environmental remediation activities.

Your consultant also expresses a concern that future tenant activities may cause environmental concerns by removing plugs installed in outlets of interior trenches. The landlord should institute property controls that protect the environment.

2. <u>Section 2.2 Apron 2 Nosedock manholes</u>
The report documents that subsurface contamination was observed, and could not be removed due to structural conditions and equipment shortcomings. Will this residual contamination be addressed by spill 9712631 or some other remedial program?

NEW YORK STATE CENSUS 2000
BE PART OF THE COUNT
SEA PARTE DE LA CUENTA!

This section also states that stained soils were observed along the parking lot at Nosedock 5, building 786 and that the spill appears to have resulted from tenants depositing oils and other contaminants on the parking area. **This cannot be allowed.** If tenant operations are polluting the environment, they must be held accountable for these spills and the spills should be reported when discovered.

3. **Section 2.3 Apron 1**
   Contamination was encountered in various areas of this activity and is reported to be under investigation against spill 9707954, however, this office has not received any submittals pertaining to this spill in several years.

4. **Section 2.4 O.W.S./U.S.T. 6056 Closure**
   Groundwater and soil contamination was observed at this site and not removed nor remediated. The report "anticipates" that monitor systems for Apron 1 and Pumphouse 5 investigations will provide adequate monitoring for this contamination. Is this correct or should this site be documented and investigated as a separate spill?

5. **Section 2.5 Apron 2**
   The report states that monitor wells may have been installed through the pipeline servicing this area and may have blocked the pipeline. Has this been confirmed and if the pipeline was breached, was any product released?

6. **Section 2.6 Jet Fuel Truck Stand and U.S.T. 6056**
   No comment required.

Please submit a written response regarding those concerns outlined above by **May 1, 2000.**

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Joseph Homburger
Mr. Jonathan Greco
NFC:ds

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

Environmental Conservation 30 YEARS
John P. Cahill
Commissioner

March 1, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

Attention: Mr. Mark Rabe

Re: O.W.S. Closure Report Submittal
Rome (C), Oneida County

Dear Mr. Rabe:

I have reviewed your consultant's **Closure Report Submittals** report dated December 1999.

1. The work was performed in 1997 and the report was not submitted until January 2000, I would hope that future submittals will be more timely.

2. For removals where no spill occurred I have no comment. I have a concern for sites where contamination was encountered but no spill was reported.

O.W.S. 120
Elevated pid readings were noted and contaminated soil was removed for remediation. **This should have been reported as a spill.**

O.W.S. 214
The report states that soil was removed "until soil screening and field observations indicated that all contaminated soil had been removed". **This should have been reported as a spill.** Post removal soil analysis showed that **stars** guidelines were exceeded and over excavation was then performed. Unfortunately, soil samples taken after the over excavation were not analyzed for SVOC'S.

As stars guidance values were exceeded at this tank closure, a spill must be reported and AFBCA/DA-Griffiss can either perform further investigation or the spill can be closed as not meeting state standards.

O.W.S. 917
Elevated pid readings and visibly contaminated soil were noted and contaminated soil was removed for remediation. **This should have been reported as a spill.**

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco, NYSDEC
NFC:ds

RECEIVED
MAR 3 2000
BUREAU OF EASTERN
REMEDIAL ACTION

NEW YORK STATE CENSUS 2000
BE PART OF THE COUNT
SOIS PARTIE DE LA CUENTA!

Copy
Morrison
Jim Quinn
Jan Greco V

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

MEMORANDUM FOR AFBCA PROGRAM MANAGERS AND OPERATING LOCATIONS

FROM: AFBCA/DR
1700 North Moore Street, Suite 2300
Arlington, VA 22209-2802

SUBJECT: Installation Environmental Closeout Strategy Reviews

Continual changes in program requirements and our inability to meet progress measures have brought into serious question the credibility of our overall environmental program at OSD. We will need to work hard as a team to change this perception of our program. To meet this challenge we all need to become more aware of how the environmental site closeout and property transfer processes support each other (Attach 1) and ensure that our strategies and requirements reflect this. As a result, in lieu of peer reviews this year, we will be conducting Installation Environmental Closeout Strategy (IECS) Reviews (Atchs 2 and 3) for all installations. The purpose of these reviews is to evaluate your Base Realignment and Closure (BRAC) Base Cleanup Team (BCT) strategy for reaching installation environmental closeout and assess how property reuse and transfer is integrated into this strategy. By conducting these reviews with our regulatory partners, we want to ensure that everyone is on-board with regard to the actions that still need to be undertaken to achieve environmental closeout and property transfer, and the schedules for accomplishing them.

The IECS Reviews will include a presentation by each BCT regarding the status and strategy for achieving closeout of all environmental program areas and property transfer plans to a strategy review team. The strategy review team will be lead by an experienced BRAC Environmental Coordinator along with other experts in the areas of cleanup and property transfer. The reviews will be held on a regional basis as outlined in Atch 3. A separate letter will be sent to our regulatory partners at the regional level to inform them of these reviews. It is your responsibility to formally invite your BCT members to participate in the reviews.

The objectives of these reviews will be to ascertain the overall status of the restoration and compliance programs at each installation; identify regulatory and other issues that need to be resolved; assess costs and schedules to complete; and evaluate strategies to reach environmental closeout and achieve property transfer. It is important that closeout strategies are not only aligned with the objective of transferring property while protecting human health and the environment, but also with the objective of minimizing long-term property stewardship requirements (e.g., use restrictions) after property transfer to the extent practicable.

Draft programming packages for all FY 2001 requirements and any FY 2002 requirements that you wish to position for validation now should be submitted to Mr. Chung Yen, HQ AFCEE/ERC, by COB on the date specified in Atch 3 for each regional review meeting. You should be prepared to brief your projects as part of your IECS Review. The briefing format and content requirements for these reviews will be provided under separate cover.

It is our anticipation that those installations with sound closeout strategies will have programming documents that are ready for AFBCA/DR validation. I need your assistance to change the perception of our environmental program. These reviews are a step in this direction. Our point of contact for the IECS Reviews is Mr. Mario Ierardi, AFBCA/EV, at DSN 426-5518 (Commercial 703-696-5518).

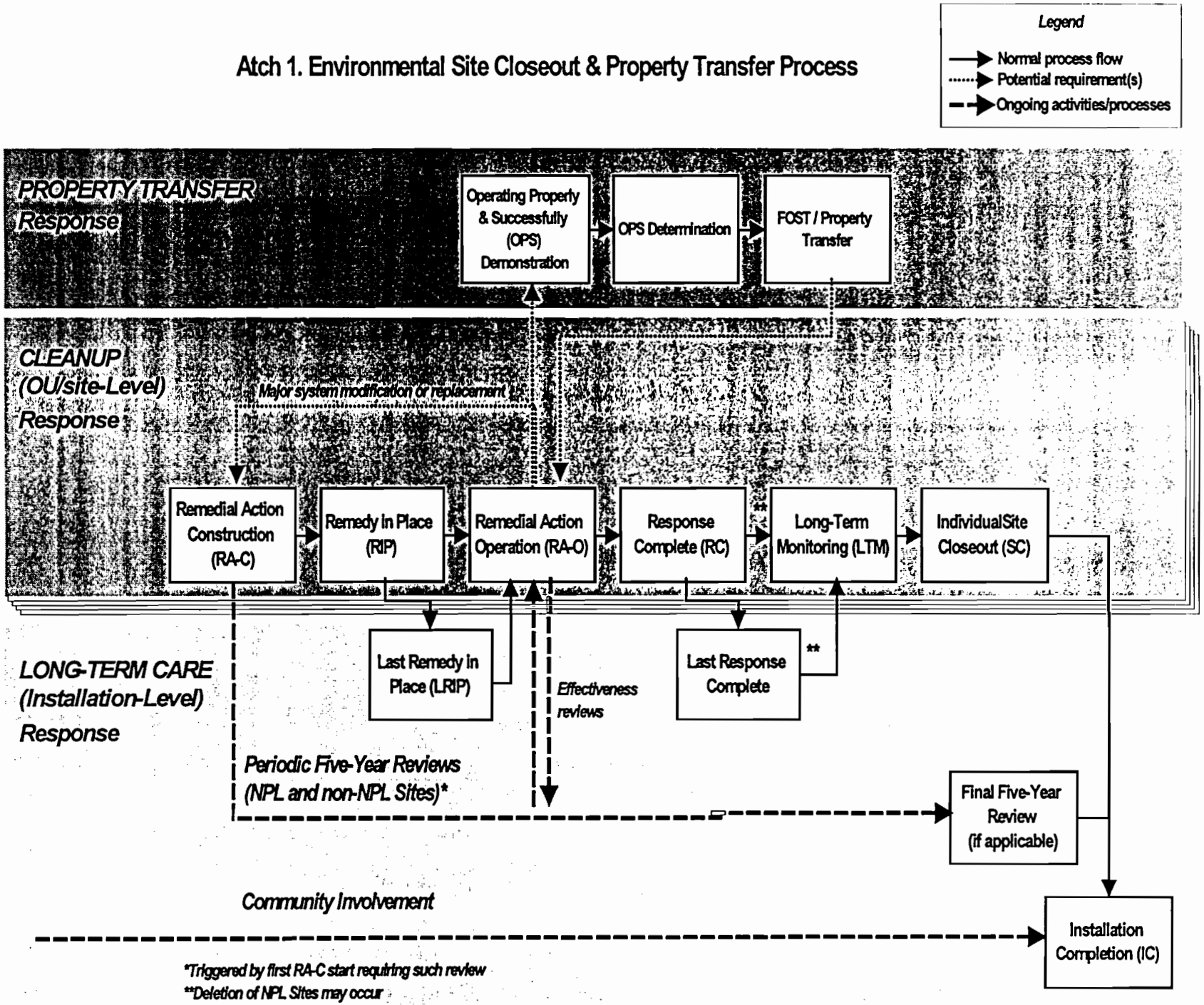
ALBERT F. LOWAS, JR.
Director

Attachments:

1. Site Closeout Process
2. IECSS Review Description
3. IECSS Review Schedule

cc:
SAF/MIQ
SAF/MII
AFCEE/ERB/ERC w/Atchs
AFBCA/OL - BEC w/Atchs via E-mail

Atch 1. Environmental Site Closeout & Property Transfer Process



Installation Environmental Closeout Strategy Reviews

Installation Environmental Closeout Strategy (IECS) Reviews will be conducted during fiscal year (FY) 2000 for all installations. The purpose of the IECS Reviews is to evaluate the status of all aspects of the environmental program at each installation and the strategy for reaching environmental closeout for those program areas where future requirements remain. The reviews will consider restoration and compliance program areas, including the Installation Restoration Program (IRP) and Environmental Compliance–Closure-Related (EC-CR) program areas such as solid waste management units (SWMUs), underground storage tanks, oil/water separators, and disclosure resources (e.g., asbestos and lead-based paint).

The reviews will consist of three phases:

Phase I – Status and Strategy Development
Phase II – Regional IECS Reviews
Phase III – Management Briefings

Phase I: During Phase I, each installation will prepare a presentation in conjunction with their EPA and State BCT members to be briefed to a Strategy Review Team (SRT) during Phase II at their respective regional IECS Review meeting (Atch 2). The presentation will need to include a review of the status of each environmental program area and a description of the strategies for achieving closeout of those program areas where additional requirements remain. A template for the presentations and the specific requirements to be addressed will be distributed in early March.

Review of FY 2001 and out-year requirements will also be accomplished as part of the regional IECS reviews (Phase II). Draft programming packages for all FY 2001 requirements and any FY 2002 requirements that you wish to position for validation must be submitted to Mr. Chung Yen, HQ AFCEE/ERC, by COB on the date specified in Atch 2 for each regional review meeting. **You should be prepared to discuss your projects during the Phase II briefing and respond to the questions outlined in the Technical Peer Review (TPR) Questionnaire.**

For six installations (**Chanute, Griffiss, Plattsburgh, Mather, Castle, and Lowry**), more focused closeout assistance visits will be conducted during Phase I by an AFBCA/contractor team. These assistance visits will involve more detailed review and documentation of the status of each installation's environmental program. It is anticipated that two visits to the installations will take place, with the first visit involving only the BEC and other OL staff and the second involving the entire BCT. The second visit will be focused on assisting the BCT in developing the Phase II briefing. During both visits, participation by the Headquarters Environmental Coordinators and AFCEE Team Chiefs is expected. The initial visits will be conducted in the March timeframe with the second visits conducted in April or May. The scheduling of these visits will be coordinated with the respective BECs.

Phase II: During Phase II, each BCT will be expected to present a briefing on the status of the restoration and compliance programs at the installation and the overall strategy for achieving

closeout of all environmental program areas. Although much of the BCT presentation is expected to be focused on the status and strategy related to IRP sites, all environmental program areas will need to be addressed. The BCT presentation will be made to the SRT, which will be comprised of Air Force and contractor personnel who have relevant knowledge of and experience with AFBCA programs, policies, and procedures; the environmental site closeout process; and various specialized technical areas (e.g., hydrogeology, geology, chemistry, risk assessment, toxicology, and engineering).

The IECS Reviews will focus on the following:

- Evaluating the goals and objectives of the strategies to achieve closeout of all environmental program areas.

- Assessing the policy and technical merits, risks, and uncertainties of the proposed strategies to achieve the stated goals/objectives.

- Evaluating technical, schedule, and cost assumptions/estimates associated with stated goals/objectives.

- Providing recommendations to improve the achievement of the stated goals and objectives.

- Reviewing and providing comments on programming documentation submitted for consistency with DoD, Air Force, and AFBCA planning and programming guidance.

It is expected that there may be regulatory and other issues discussed during the Phase II review meetings that will require further evaluation outside of the review meeting, including elevation to higher Air Force and regulator management levels for resolution. The purpose of the strategy reviews is to identify all requirements and issues associated with moving toward and achieving environmental closeout, including those for which BCT consensus cannot be reached.

As discussed above, review of FY 2001 and other out-year environmental projects will also be accomplished as part of the regional IECS reviews. These environmental projects will need to be briefed as part of the BCT's Phase II status and strategy briefing. Recommendations will be made by the SRT to the BCT and AFBCA Division to consider before project validation by the AFBCA Director is requested. The SRT is a recommending body only and has no authority to validate projects or requirements.

Phase III: Following the regional IECS reviews, selected BCTs will be requested to provide a status and strategy briefing to a management panel consisting of upper-level management personnel (e.g., AFBCA Division Program Managers; Chief, AFBCA/EV; and equivalent state and EPA regional managers). Scheduling of these briefings will be made following the completion of the regional review meetings. At this time, the six installations that receive the Phase I assistance visits will present Phase III briefings, but additional installations may also be added following the regional review meetings.

Installation Environmental Closeout Strategy Reviews
Phase II Schedule

Regional Location	IECS Review Dates	Installations[1]	Draft Programming Documents Due
AFCEE/San Antonio, TX	April 3-7, 2000	England, Carswell, Reese, Eaker	March 17, 2000
AFCEE/San Antonio, TX	April 17-21, 2000	Richards-Gebaur, Bergstrom, Kelly	March 31, 2000
Rickenbacker/Columbus, OH	May 1-5, 2000	Gentile, Newark, Rickenbacker, Wurtsmith, Grissom	April 14, 2000
March/Riverside, CA	June 5-9, 2000	March, Ontario, Norton, George, Williams, Lowry	May 19, 2000
McClellan/Sacramento, CA	June 12-16, 2000	Castle, Mather, Onizuka, McClellan	May 26, 2000
HQ AFBCA/Rosslyn, VA[2]	June 19-23, 2000	Myrtle Beach, Griffiss, Loring	June 2, 2000
O'Hare/Chicago, IL	July 10-14, 2000	Chanute, O'Hare, K.I. Sawyer	June 23, 2000
HQ AFBCA/Rosslyn, VA[2]	July 17-21, 2000	Homestead, Pease, Plattsburgh, Roslyn	June 30, 2000

[1]Proposed order of installation review sessions at each regional site. More specific information on the date and time for each installation's review session will be provided later.

[2]Reviews will be held at HQ AFBCA or the Booz·Allen & Hamilton office in Crystal City.

Note: Dates are subject to change.

Environmental Closeout Strategy Reviews Griffiss and Plattsburgh

- Initiate with March 2 meeting in Albany
- Phase I - *Status Review and Strategy Development*
  - Initial visit to bases to determine environmental program status and review closeout strategies (March/April)
  - Second visit to review status and strategies with BRAC Cleanup Team (April/May)
- Phase II - *Regional IECS Reviews*
  - BCT presentation to Strategy Review Team
  - Griffiss and Plattsburgh reviews in June/July
- Phase III - *Management Briefing*
  - Briefing to panel consisting of Tier II management (AFBCA, EPA, and State)
  - Briefings proposed for late summer

JG

'ork State Department of Environmental Conservation
.on of Environmental Remediation, Region 6
. Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

Environmental Conservation 30 YEARS
John P. Cahill
Commissioner

February 29, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9704486
O.W.S./U.S.T. SITE 5773
Rome (C), Oneida County

Dear Mr. Rabe:

I have reviewed your consultant's **Closure Report Submittals** report dated December 1999 and have the following comments.

1. The work was performed in 1997 and the report was not submitted until January 2000, I would hope that future submittals will be more timely.

2. The report states that residual contamination exists at this site.

Per your consultant's recommendation, this site needs further investigation.

An investigation plan should be submitted to this office by **June 30, 2000** outlining your intentions at this site.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco
NFC:ds

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New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

February 29, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9702165
O.W.S./U.S.T. SITE 215-3
Rome (C), Oneida County

Dear Mr. Rabe:

I have reviewed your consultant's **Closure Report Submittals** report dated December 1999 and have the following comments:

1. The work was performed in 1997 and the report was not submitted until January 2000, I would hope that future submittals will be more timely.

2. The report states that the O.W.S. removal encountered contamination which was over excavated to meet state standards.

However, the original spill was encountered during removal of U.S.T. 215 and this current action did nothing to investigate nor remediate the original spill.

The Air Force Base Conversion Agency was advised to conduct a subsurface investigation at this site on May 20,1997. Has this been done?

An investigation plan should be submitted to this office by **June 30, 2000** outlining your intentions at this site.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco, NYSDEC
NFC:ds

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New York State Department of Environmental Conservation
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John P. Cahill
Commissioner

February 29, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9713632
O.W.S./U.S.T. SITE 5771-2
Rome (C), Oneida County

Dear Mr. Rabe:

I have reviewed your consultant's **Closure Report Submittals** report dated December 1999 and have the following comments.

1. The work was performed in 1997 and the report was not submitted until January 2000, I would hope that future submittals will be more timely.

2. Table 1.01 incorrectly lists NYSDEC Spill No. as 97136332.

3. Free product was noted on the groundwater.

4. In paragraph 1.13.2.6 it was noted that "Strong solvent odors" were noted in the soil beneath the exhaust duct drainage area, however, I don't see any further mention of "solvents" or any lab analysis looking for them.

As no attempt was made to over excavate in order to meet standards and with the noted product on the groundwater, further investigation is required at this site. This investigation should also include "solvents" and Mr. Greco should be advised of the findings.

An investigation plan should be submitted to this office by **June 30, 2000** outlining your intentions at this site.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

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cc: Mr. Jonathan Greco
NFC:ds

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New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
207 Genesee Street, Utica, New York 13501-2885
Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

February 28, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9702171
O.W.S./U.S.T. SITE 133
Rome (C), Oneida County

Dear Mr. Rabe:

I have reviewed your consultant's **Closure Report Submittals** report dated December 1999 and have the following comments:

1. The work was performed in 1997 and the report was not submitted until January 2000, I would hope that future submittals will be more timely.

2. The report states that field observations and analytical results indicate residual contamination remains at this site and recommends further investigation and corrective actions be conducted.

The Air Force Base Conversion Agency is currently conducting a subsurface investigation and remediation at this site and must continue to submit quarterly reports as directed in prior correspondence.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco
NFC:ds

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REMEDIAL ACTION

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 6
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Phone: (315) 793-2554 • **FAX:** (315) 793-2748
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

February 28, 2000

Air Force Base Conversion Agency
AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

Attention: Mr. Mark Rabe

Re: Spill No. 9709366
O.W.S./U.S.T. SITE 15-3
Rome (C), Oneida County

Dear Mr. Rabe:

I have reviewed your consultant's **Closure Report Submittals** report dated December 1999 and have the following comments:

1. The work was performed in 1997 and the report was not submitted until January 2000, I would hope that future submittals will be more timely.

2. The report states that field observations and analytical results indicate residual contamination remains at this site and recommends further investigation and corrective actions be conducted.

Therefore, the Air Force Base Conversion Agency must schedule a subsurface investigation and remediation for this site.

Have your consultant submit a proposed work plan by **June 1, 2000** for review.

Sincerely,

Neal F. Carrier
Environmental Engineering Technician 3
Region 6 - Utica

cc: Mr. Jonathan Greco
NFC:ds

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New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road, Albany, New York 12233-7010

John P. Cahill
Commissioner

To: Christina Dowd, Division of Fish and Wildlife

From: Marsden Chen, Division of Environmental Remediation

Re: Draft Records of Decision for Landfills 2/3, 5 & 7; Griffiss AFB (ID No. 633006)

Date: February, 28, 2000

Attached is a copy of the draft Record of Decision (ROD) for each of the referenced sites, all of which are located on the former Griffiss Air Force Base, Oneida County, New York.

Please review the RODs and provide Jonathan Greco, of my staff, with comments as soon as possible. As we wish to get the final RODs completed this fiscal year, the responsiveness summarys will be dealt with separately via e-mail. If you have any questions regarding this matter, please call Jon at (518) 457-0549.

Marsden Chen

cc. S. Ervolina (w/o enclosure)

New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road, Albany, New York 12233-7010

John P. Cahill
Commissioner

February 28, 2000

Ms. Henri Hamil
NYS Department of Health
Office of Public Health
Syracuse Field Office, 3rd Floor
217 S. Salina Street
Syracuse, NY 13202

Dear Ms. Hamil:

Re: Draft Records of Decision for Landfills 2/3, 4, 5 & 7;
Griffiss AFB, Rome, NY (I.D. No. 633006)

Enclosed is a copy of the draft Record of Decision (ROD) for each of the referenced sites, all of which are located on the former Griffiss Air Force Base, Oneida County, New York.

Please review the RODs and provide Jonathan Greco, of my staff, with comments as soon as possible. As we wish to get the final RODs completed this fiscal year, the responsiveness summarys will be dealt with separately via e-mail. If you have any questions regarding this matter, please call Jon at (518) 457-0549.

Sincerely,

Marsden Chen

Marsden Chen
Bureau of Eastern Remedial Action
Division of Environmental Remediation

Enclosure
cc: A. Carlson (w/encl)
cc. S. Ervolina (w/o enclosure)

JG

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

FEB 25 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Rome, NY 13441-4105

Re: Final Finding of Suitability to Lease (FOSL) and
Supplemental Environmental Baseline Survey (SEBS) Bldg. 782

Dear Mr. McDermott:

This letter is to clarify our previous letter, dated February 14, 2000, regarding the future reuse of Building 782 property. Our previous letter indicated that the property was being transferred for reuse as a steel manufacturing facility. Although the property is being reused for just such a purpose, it is being reused through the process of leasing the property and not a transfer. Please accept my apologies for this error and disregard all such previous reference to "transferring the property" (e.g., FOST). Also note, this error does not affect our concurrence that the property is still acceptable for reuse by leasing the property as a steel manufacturing facility.

Should you have any questions, please contact me at (212) 637-4422.

Sincerely,

Douglas M. Pocze
Project Manager
Federal Facilities Section

cc: W. Greco, NYSDEC

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DIRECTIONS TO:

AFBCA PUBLIC MEETING - PROPOSED PLANS: LANDFILLS #2/3, #4, #5 & #7

FLOYD TOWN HALL 5 -7 PM FEBRUARY 23, 2000

From Rome take Route 49 East to Route 365 East toward Holland Patent/Barneveld.

Shortly after leaving the City of Rome, you will come to a stoplight where Route 365 turns left. The Town of Floyd is 3 miles beyond this light.

As you enter the Town of Floyd, you will see a large green sign marked "Floyd".

Just beyond this sign, turn onto Koenig Road (the Hi-Way Inn is on the corner).

Shortly after turning onto Koenig Road you will come to a STOP sign; go straight across this intersection – the Floyd Town Hall is approximately 100 – 150 feet beyond this intersection on the Left – there is ample parking available in front of the building.

GEORGE E. PATAKI
GOVERNOR

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-1010

JOHN P. CAHILL
COMMISSIONER

MEMORANDUM

FEB 17 2000

TO: Lynette Stark
Assistant Director of State Operations

FROM: John P. Cahill

SUBJECT: Proposed Property Transfer of Parcel F-2, Griffiss Air Force Base

---

Attached, for the Governor's consideration and signature, is the United States Environmental Protection Agency's (USEPA) findings regarding the transfer of a partially contaminated parcel of land (Parcel F-2) at the former Griffiss Air Force Base, Rome, New York. The base is currently listed on the USEPA's National Priorities List (NPL) of hazardous waste sites, and the U.S. Air Force has requested that it be allowed to transfer said parcel prior to completing all necessary remedial actions at the site. The property is to be transferred to a local redevelopment authority for commercial/industrial use.

The authority for this conveyance is found in Section 120 (h) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). That section allows the transfer of title of an NPL federal facility prior to remediation, but only when both the Governor of the State and the Administrator of the U.S. Environmental Protection Agency (USEPA) approve the transfer and find that "...the property is suitable for transfer for the use intended by the transferee, and the intended use is consistent with protection of human health and the environment (CERCLA, Section 120 (h)(3)(c)(i)(I))."

The primary documents which have been prepared for the purpose of facilitating the transfer are (1) the Finding of Suitability for Early Transfer (FOSET), (2) the Covenant Deferral Request (CDR) which, when agreed to, defers the otherwise mandated cleanup of all CERCLA substances at a federally-owned property prior to transferring it to a non-federal entity, and (3) the Proposed Quitclaim Deed. These documents contain the response action assurances of the Air Force, as required by CERCLA 120 (h)(3)(c)(ii).

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Based upon the findings and conclusions contained in the CDR, FOSET and supporting documentation, and also based upon the warranties and assurances contained in the Quitclaim Deed, I recommend that the Governor execute the attached "Findings of the Regional Administrator, EPA". Upon his signature, please have the document returned to this office for further routing to the USEPA.

Attachment

FINDINGS OF THE REGIONAL ADMINISTRATOR, EPA
WITH THE CONCURRENCE OF THE GOVERNOR, NEW YORK STATE
REGARDING
EARLY TRANSFER OF PARCEL F2 AT GRIFFISS AIR FORCE BASE (AFB)

I make the following findings to authorize the United States Air Force to transfer Parcel F2 consisting of approximately ninety-four (94) acres on Griffiss Air Force Base and to defer inclusion of the covenant required by Section 120(h)(3)(A)(ii)(I) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in the Quitclaim Deed used to do so. This action is authorized by CERCLA § 120(h)(3)(C) when the United States is not yet able to covenant that "all remedial action necessary to protect human health and the environment... has been taken," an evaluation of the property determines that it can be safely used, and the Air Force provides adequate assurances that it will satisfy its commitment to complete required response actions in a timely manner.

The determination that Parcel F2 is suitable for transfer at this time, based on the property's intended use and the assurances contained in the Quitclaim Deed and/or other agreement related to the transfer (which are required to conform with Section 120(h)(3)(C)(ii) of CERCLA) is not to be construed, either expressly or impliedly, as concurrence on or approval of (1) the findings and/or conclusions set forth in Covenant Deferral Request and its supporting documentation, nor (2) any determination with regard to response actions which have yet to be selected or taken at the Griffiss Air Force Base Site. Furthermore, the determination, as noted above, is not to be construed as a waiver of the right to challenge or dispute the selection of, or performance of, any future response actions in accordance with any agreement or applicable law.

I have reviewed the particulars of the proposed transfer in the attached Covenant Deferral Request for Parcel F2 and make the following findings:

1. The property is suitable for transfer for commercial and industrial use and this use is consistent with protection of human health and the environment as it pertains to CERCLA hazardous substances. This finding is based on the Covenant Deferral Request, the Air Force Finding of Suitability for Early Transfer, and the Air Force Supplemental Environmental Baseline Survey of the Parcel.

2. The Quitclaim Deed and/or other agreement memorializing the transfer contain the response action assurances required by Section 120(h)(3)(C)(ii) of CERCLA. Specifically, the Quitclaim

Deed and agreement protect human health and the environment as it pertains to CERCLA by restricting use of groundwater and access to areas which have not yet been fully evaluated; provide restrictions to ensure that remedial investigations, response actions and oversight activities will not be disrupted; provide that all response actions will be taken and identify schedules for investigations and completion of such actions; and obligate the Air Force to submit a budget request that address schedules for investigations and completion of such actions.

3. The Air Force provided public notice of the proposed transfer on October 10, 1997, by publication in the Rome Sentinel, a newspaper of general circulation in the vicinity of the property, and provided the public with not less than thirty (30) days in which to submit written comments on the suitability of the property for transfer.

4. The deferral and transfer of Parcel F2 will not delay any necessary response action on the property.

Therefore, I find Parcel F2 suitable for transfer in accordance with CERCLA § 120(h)(3)(C).

APPROVAL:

_____ _____

Jeanne M. Fox
Regional Administrator,
U.S. EPA, Region 2

Date

CONCURRENCE:

_____ 2/23/00

George E. Pataki
Governor, State of New York

Date

Parcel F-2, Griffiss Air Force Base

The Following is a brief summation of each known or suspected contaminant area located within Parcel F-2. This table must be used in concert with the attached F-2 FOSET map.

Superfund Sites on Parcel F-2

Site Name/ID	Site Description/Contaminant Profile	Cleanup Activity Status	Restrictions
ST-44 Transformer Substation	The transformer substation is a fenced area known to have had PCB releases in the past. PCBs were found both inside the fence line, as well as beyond the fence line.	All areas inside the substation fence line have been cleaned to "restricted access" levels (25 ppm). The surrounding area has been cleaned to "unrestricted use" levels (i.e., 1 ppm surface, 10 ppm subsurface). The Air Force plans no further response at this site and will submit a Decision Document to closeout the site in 2000.	Global groundwater restrictions apply.* Area is restricted to industrial uses. Movement of clean cover material is subject to restrictions.
On-base Groundwater	Groundwater on the F-2 Parcel was investigated with respect to the individual Areas of Concern present on, and adjacent to, the property.	No groundwater cleanups have been initiated on the property. No cleanup of groundwater is anticipated with the possible exception of the most northern part of F-2 at sites SS-20 (Tank Farms 1 & 3) and ST-36 (Building 110 Aqua Refueling System). Both of these sites are petroleum release sites.	Global groundwater restrictions apply for the entire parcel.* New owner is not allowed to come in contact with water in one area (e.g., SS-20)

Major Petroleum Sites on Parcel F-2

Site Name/ID	Site Description/Contaminant Profile	Cleanup Activity Status	Restrictions
SS-20 Tank Farms 1&3	This site is the former location of two "tank farms" which predominantly stored fuel oils. Both tank farms are now gone, and some remediation was performed. Recent work in the area has revealed continuing petroleum contamination in both soils and groundwater.	The Air Force has assigned an open spill number to this site (9111733) and intends to address the site in 2000.	New owner is not allowed to come in contact with sub-surface soils or groundwater in this area.
ST-36 Bldg. 110 Aqua System	Bldg. 110 was the site of a former aviation fuel storage and distribution "pumphouse". This site is actually north of the transfer property, however, an associated pipeline and possibly-contaminated groundwater extend onto the site. Four 25,000 gallon tanks were removed several years ago, however, not all subsurface and groundwater contamination was remediated.	The four tanks are gone, however, soil and groundwater contamination remain. The associated distribution pipe was cleaned and closed several years ago. The remaining work will begin in 2000.	Global groundwater restrictions apply .*

ST-35 Bldg. 26 Former Pump Station	Bldg. 26 is the former location of a fuel pumping/distribution station. Significant soils contamination was not found. Groundwater has inconsistently exhibited petroleum contamination.	All subsurface tanks have been removed, and soils above the groundwater table appear to have been appropriately remediated. A final decision on the site is expected from the Air Fore in 2000.	New owner is not allowed to come in contact with sub-surface soils or groundwater in this area.

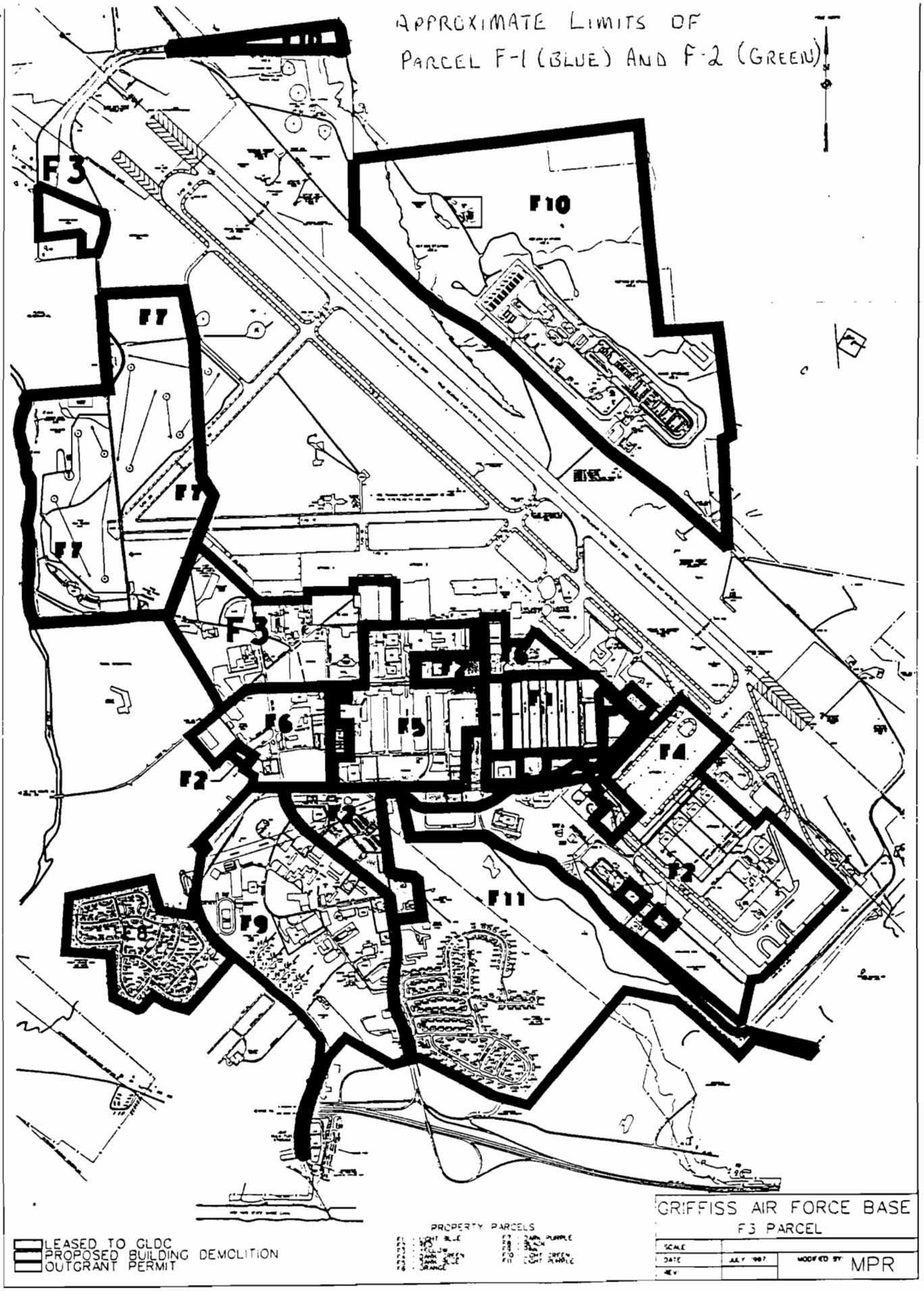
* Global groundwater restrictions state "The owner shall not extract, utilize, or consume or permit to be extracted, any water from the aquifer below the surfaces of the ground within the boundary of the property unless such groundwater has been tested and found to meet all applicable standards."

There are five petroleum releases associated with the property (UST 014-2, AST-316, SS-20, ST-36 and ST-35). The latter three have already been discussed above (i.e., SS-20 ,ST-36 and ST-35); and the preceding two are being actively addressed by the base. Each of these five areas is minimally subject to the global groundwater restrictions, as well as being restricted to industrial reuse only. Only SS-20 ans ST-35 have additional restrictions prohibiting any contact with the groundwater until a remedy has been chosen for the sites. All of the other above ground storage tanks (ASTs) and underground storage tanks (USTs) not already discussed (most of which contained petroleum products) have been properly dealt with; i.e., either closed and removed, or investigated and temporarily closed but reserved for the future owners use.

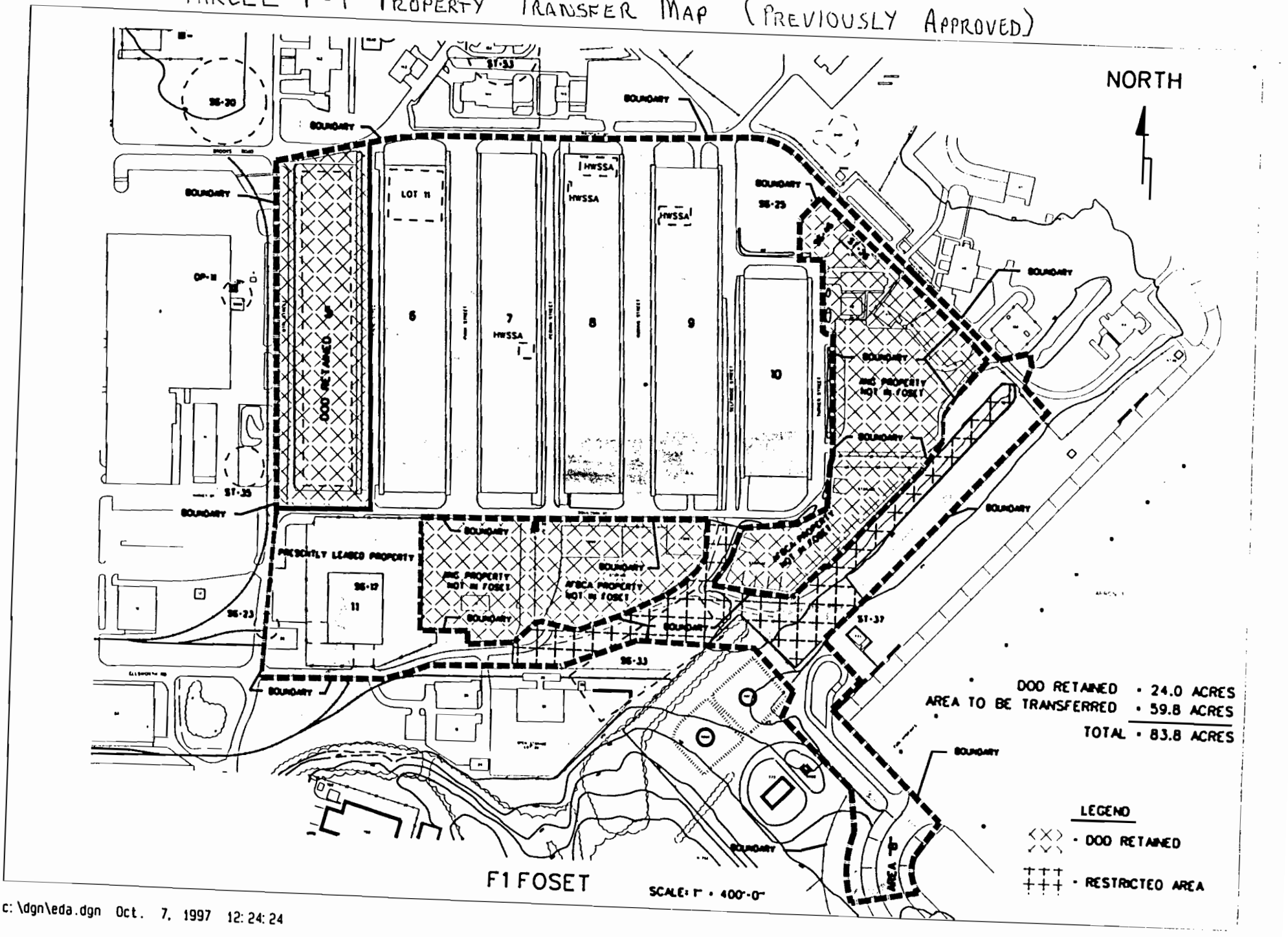
Other Areas of Interest (AOIs)

At AOIs 16 & 193 (a.k.a. Pad 5) the concrete foundation of the former building was cleaned and then broken into rubble and mixed with native soils. This portion of the property is now a graded, open expanse, and is reserved for new construction. Global groundwater and industrial reuse restrictions apply to this area.

Finally, while the Air Force has performed a records search and site walk-over/metal detector surveys of suspicious areas base wide, they do add the stipulation that they cannot guarantee that all unexploded ordnance has been removed; and therefore, in the unlikely event suspicious materials of this nature are encountered during future construction activities, work is to be stopped immediately and the proper authorities are to be contacted.

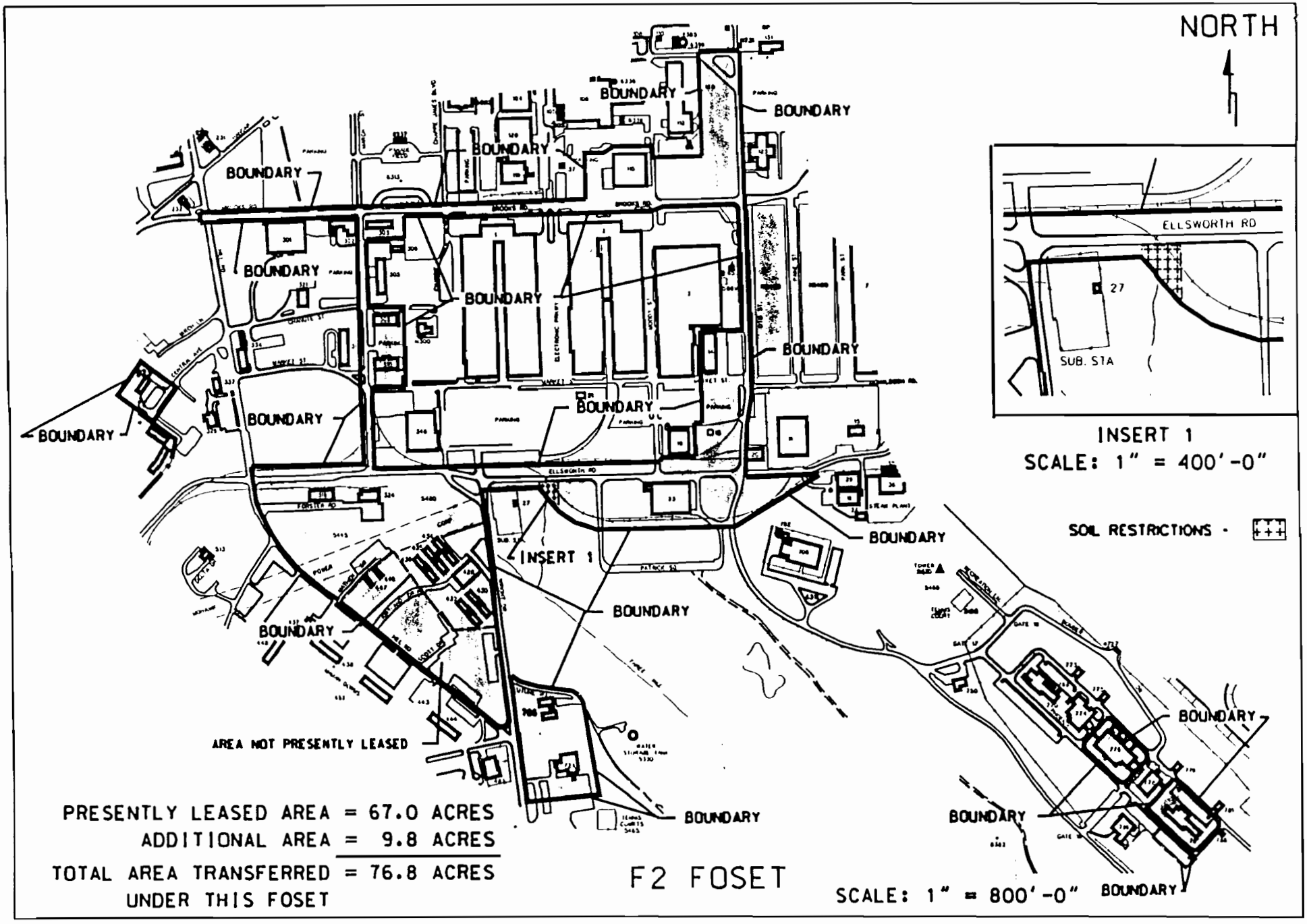

APPROXIMATE LIMITS OF
PARCEL F-1 (BLUE) AND F-2 (GREEN)
F3
F10
F7
F7
F7
F3
F6
F5
F1
F4
F2
F2
F11
F9
F8
LEASED TO GLDC
PROPOSED BUILDING DEMOLITION
OUTGRANT PERMIT
PROPERTY PARCELS
GRIFFISS AIR FORCE BASE
F3 PARCEL
SCALE
DATE
JULY 1997
MODIFIED BY
MPR
REV
c:\dgn\leasarea.dgn Oct. 1, 1997 09:03:51

PARCEL F-1 PROPERTY TRANSFER MAP (PREVIOUSLY APPROVED)



c:\dgn\eda.dgn Oct. 7, 1997 12:24:24

PARCEL F-2 PROPERTY TRANSFER MAP



c:\dgn\f2foset.dgn Oct. 16, 1997 11:18:23

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

FEB 14 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Rome, NY 13441-4105

Re: Final Finding of Suitability to Transfer (FOST) and Supplemental Environmental Baseline Survey (SEBS) Bldg 782

Dear Mr. McDermott:

EPA has reviewed the Final Finding of Suitability to Transfer ("FOST") and Supplemental Environmental Baseline Survey ("SEBS") for Building 782, dated January 31, 2000, as well as the Air Force's Response to Comments on the forementioned documents. Upon review of these documents and supporting data, the EPA has found that the documents are acceptable and the property is suitable for the intended purpose stated in the FOST.

The FOST indicates the future use of this property to be manufacturing. Our review of the environmental condition of the property indicates that the environmental factors pose no concern with this intended future use. However, should the use change from that outlined in your FOST, please note additional review may be necessary.

Sincerely,

Robert Wing, Chief
Federal Facilities Section

cc: M. Chen, NYSDEC
J. Greco, NYSDEC

RECEIVED
REMEDIAL ACTION

J. Greco

New York State Department of Environmental Conservation
Division of Environmental Remediation, Room 260B
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 • **FAX:** (518) 485-8404
Website: www.dec.state.ny.us

John P. Cahill
Commissioner

MEMORANDUM

TO: Jim Austin, Acting Deputy Commissioner

FROM: Michael J. O'Toole, Jr., Director, DER

SUBJECT: **QUESTIONS ABOUT GRIFFISS AIR FORCE BASE/WOODSTOCK '99**

DATE: FEB 8 2000

The following are responses to the questions on the attached correspondence from the on-line magazine "Sonicnet" regarding the possible environmental aftermath of the Woodstock '99 concert event. Staff has learned that these same questions were also sent to the New York State Department of Health's (NYSDOH) regional office. Both the NYSDOH and the United States Environmental Protection Agency (USEPA) have been consulted at the staff level and are in agreement with the responses below.

1. Remediation of two areas at the former Griffiss Air Force Base (GAFB) was accelerated in anticipation of the Woodstock '99 concert event. The principal contaminants at the two areas were a) petroleum contamination at the former "Fire Protection Training Area" (a firefighting training area) which was later used as a parking area, and b) a small area by the "campgrounds store" which contained lead and low levels of PCB. In both instances, the cleanup was deemed acceptable by health officials for the purposes of the concert.

2. There are several documents, which the staff at the former GAFB can provide, pertaining to the environmental acceptability of the property for use during the Woodstock '99 event. These documents are known as "Findings of Suitability to Lease" (FOSL) and are prepared by the GAFB staff for any property transaction. These documents were reviewed by the New York State Department of Environmental Conservation (NYSDEC), the NYSDOH and the USEPA. Final copies of these documents can be obtained by contacting Mr. Michael McDermott, Base Environmental Coordinator (GAFB), at (315) 330-2275.

3. Both Skyline and Woodhaven housing areas were specifically assessed for use as temporary housing facilities. All the regulatory agencies mentioned above

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were involved in the review of the FOSLs with the NYSDOH taking the lead responsibility for public safety. It was concluded that no significant risks were posed by the use of the former base housing for the planned purpose and duration.

4. To our knowledge, there were not the levels nor types of hazardous substances present at the Woodstock concert area which would have resulted in a release of harmful contamination upon combustion. Similarly, because the event was sited away from any unremedied Superfund areas of concern, flood waters are not believed to have resulted in an increased exposure to hazardous substances by concert goers.

5. Neither the fires nor the flooding were anticipated. In fact, fires were expressly forbidden within the concert area. Regardless, the siting of the concert venue was such that hazardous substance exposure to concert goers is not believed to have occurred despite the unforseen events.

6. We know of no reports of the significantly higher incidence of asthma mentioned in the questions, nor are we aware of the presence of any contaminants which would have produced such an effect.

7. Several entities were initially concerned with the chosen location for the event; however, the main proponents of the event, the Griffiss Local Development Corporation (GLDC), the concert promoters and the Air Force invested the necessary resources to demonstrate that the property was suitable for the concert. Based upon the information provided and the precautions taken, the regulatory agencies found no significant threat under the proposed scenario.

8. Several regulatory groups were involved in reviewing submissions relating to the Woodstock '99 concert event, most notably the NYSDEC, NYSDOH, USEPA and the Oneida County Department of Health; however, none of these entities were planners of the event. As the owners of the property, the Air Force would have been the only group who could have chosen to arbitrarily deny the use of their property. However, the GLDC, actually recruited the concert and acted as an intermediary in the leasing of the property.

Please contact Mr. Jonathan Greco, of my staff, at 457-0549 if you require clarification of these responses.

2/7

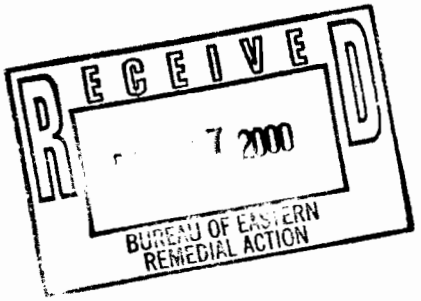
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MEMORANDUM

TO: Jim Austin

Can you get us answers to these questions in the next day or so? Also, who should we talk to about specifics and for follow-up questions? Thanks –

JENNIFER L. MEICHT
Assistant Public Information Officer



* needs answers by Mon-Tues.

SONICNET
THE ONLINE MUSIC NETWORK

www.sonicnet.com

Questions About Griffiss Air Force Base and Woodstock '99

1. Did remediation of certain areas need to be speeded up in order to prepare for this concert? If so, which areas and what kind of pollution was involved?

2. Is there a written assessment of the current environmental state of Griffiss Air Force Base? Or other documents related to the approval of the base?

3. Are the Skyline and Woodhaven housing units at the base considered to be environmentally safe? If not, why were Woodstock employees housed there? And what kind of remediation, if any, is still being done at those barracks?

4. Obviously, numerous fires were set on the Griffiss grounds during the festival. Also, there was significant flooding and pooling of water in the campgrounds and in other areas. To what extent could this have exposed people who were present to pollutants?

5.When Griffiss was approved as the site for Woodstock '99, did anyone anticipate and take into account the fact that festival-goers might set fires and that there would be flooding? If this had been known, would it still have been approved as a site for this event?

6. Medical workers onsite reported an unusual incidence of asthma among concert-goers. How much of this could be attributed to possible environmental problems on the base?

7. Some might say that common sense dictates that holding an event where people will be camping and living in the open air at a Superfund site for three days is just a bad idea. Did anyone suggest this early on?

8. Who was ultimately responsible for the decision to approve Griffiss Air Force base as the site for this festival?

315 Park Avenue South, 18th Floor, New York, NY 10010 phone: 212 284 3600 fax: 212 284 3573

GEORGE E. PATAKI
GOVERNOR

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-1010

JOHN P. CAHILL
COMMISSIONER

FEB 8 2000

Mr. Albert F. Lowas, Jr.
Director
AFBCA/LD
Department of the Air Force
1700 North Moore St., Suite 2300
Arlington, VA 22209-2802

Dear Mr. Lowas:

I am responding on behalf of Governor Pataki to your proposal regarding the early transfer of property, parcel F-2, at the Former Griffiss Air Force Base, Rome, New York. The State of New York is committed to the redevelopment of closed military bases, and recognizes the importance of your proposal to the economic vitality of the local communities.

I am pleased to report that the United States Environmental Protection Agency (USEPA) has completed its review of the Covenant Deferral Request and its supporting documentation. Upon completion of its review, the USEPA submitted a letter entitled "Findings of the Regional Administrator, EPA" to this Department in late December 1999, for our review. As you are aware, it is this document that must ultimately be concurred with by the Governor of New York and the Regional Administrator in order for the requested transfer to take place.

The "Findings of the Regional Administrator, EPA" has been reviewed by Department staff, and a recommendation is now being forwarded to the Governor. As the Governor's Office is aware of the importance of this transfer, I have every confidence that a final decision will be rendered shortly.

Sincerely,

John P. Cahill

NEW YORK STATE CENSUS 2000
BE PART OF THE COUNT
SEA PARTE DE LA CUENTA!

bcc: M. O'Toole
T. Quinn
S. Ervolina
M. Chen
J. Greco

CCU: 200000179

00179
Due 1/19

O'Toole thru Austin
JPC

RECEIVED BY COMMISSIONER N.Y.S.D.E.C.
JAN -6 PM 3:51

IMPORTANT DO NOT DETACH TRACKSHEET FROM ORIGINAL DOCUMENT(S)

TRACKSHEET

GOVERNOR'S CORRESPONDENCE OFFICE
Executive Chamber - State Capitol
Albany, New York 12224
(518) 474-3612 / Fax (518) 474-3767

State of New York
Executive Chamber

Mr. Albert F. Lowas, Jr.
Director
Department of the Air Force
USAF-Pentagon
1947 USAF DASAA, Room 4B1064
Washington, DC 20330

Corr Num: 1198253A
Date of Corr: 09/20/99
Issue Code: 20140 Base /Facilities Closures
Subject: **seeks approval of property transfer**

DELIVER TO	DATE	INSTRUCTIONS	ROUTED BY
ENCON	01/03/2000	Per Jenifer Fitzpatrick- they never received.	Tricia Curley

Routing History:

01/03/2000 01:24 PM (Routed By --> Tricia Curley) (Routed to --> ENCON) Per Jenifer Fitzpatrick- they never received.

11/23/99 10:22 AM (Routed By --> Helen Racicot) (Routed to --> ENCON) Per ESDC this was sent to DEC for ack. Mike O'Toole is the contact person.

09/30/99 02:08 PM (CC'd By --> Tara Scully) (CC'd to --> Kimberly Lamay) F.Y.I. -- NO ACTION NECESSARY

09/22/99 02:51 PM (CC'd By --> Gco Entry1) (CC'd to --> William Howard,Brad Race,Lynette Stark,Tricia Curley)

09/22/99 02:51 PM (Routed By --> Gco Entry1) (Routed to --> ESDC/Catalfamo) The attached correspondence has not been acknowledged. Please send letter from Commissioner on behalf of the Governor within 10 days. **FORWARD COPY OF FINAL RESPONSE TO GCO FOR SCANNING** -- Please respond to Cindy Connors--Dave-The Governor has not seen this. Can you please make sure that it gets to the appropriate person to review immediately. Thanks Tricia

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

SEP 2 0 1999

AFBCA/DR
1700 North Moore Street, Suite 2300
Arlington, VA 22209-2802

The Honorable George Pataki
Governor, State of New York
Executive Chamber
State Capitol
Albany, NY 12224

Dear Governor Pataki

We respectfully request your review and approval of the attached package for Parcel F-2 developed under the provisions § 9620(h)(3)(C) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA), for the "early transfer" of real property at the former Griffiss Air Force Base (AFB), New York, a Federal facility listed on the National Priorities List (NPL).

Our staff engaged in a cooperative effort with the staffs of the New York State Department of Environmental Conservation (NYSDEC) and the U.S. Environmental Protection Agency - Region II (EPA) in using this authority to develop the required documents to support the Oneida County Industrial Development Agency (OCIDA) request for the early transfer of approximately ninety-five (95) acres of land it is used purchasing as part of the Economic Development Conveyance (EDC) on the former Griffiss AFB. Under the provisions of 42 U.S.C. § 9620(h)(3)(C)(i), the EPA Regional Administrator, with your concurrence, may defer the requirement of subparagraph § 9620(h)(3)(A)(ii)(I) which requires the Federal deed for a land transfer to include the covenant that all remedial action necessary to protect human health and the environment with respect to hazardous substances remaining on the property has been taken before the date of such transfer. The deferral allows the Air Force to deed this property before it completes all remedial action. The Air Force shall execute and deliver the required warranty in an appropriate document when all response action necessary to protect human health and the environment with respect to any hazardous substance remaining on the property on the date of transfer has been taken.

Author: "Jennifer Fitzpatrick" <jafitzpa@gw.dec.state.ny.us> at Internet-Gateway
Date: 12/30/99 1:09 PM
Normal

TO: Tricia Curley at EC1, <matt.turnell@chamber.state.ny.us> at Internet-Gateway
Subject: Overdues
---------- Message Contents

The following correspondence was never received. Can you please forward to us. Thanks.

Lowas, Albert 1198253A

COMMISSIONER'S CORRESPONDENCE CONTROL SYSTEM
APPROVAL SHEET FOR USE WITH EMAIL SYSTEM

CONTROL NUMBER: 200000179
CORRESPONDENT'S NAME: Lowas, Albert
DUE DATE: 1/19/00
FILE NAME: 200000179.wpd
SUBJECT: Need Approval for Property Transfer

PREPARED BY: M.Chen/J. Greco DATE: 1/19/00

REGION/DIVISION/LOCATION: Central Office/Env'l Remediation/7010-Rm. 242

APPROVED BY:	INITIAL / DATE:
S. Ervolina	SE - 1/18/00
T. Quinn	TQ - 1/21/00
M. O'Toole, Jr.	MJOT - 1/21/00
D. Desnoyers	DD - 1/24/00

ADDITIONAL APPROVALS NEEDED:	INITIAL / DATE	CHECK FOR A BC
J. Austin	JA 1/26	
A. Smith	AS 1-27	
G. Donohue	GD	
L. Frick	LF	

ARE SUPPORTING DOCUMENTS BEING FORWARDED? No
(If yes, please specify what)

SUGGESTED ADDITIONAL (NON-STANDARD) BCC'S:

TRANSMITTED BY: Karen K. Quinn DATE: 1/25/00 @ 11:30 a.m.

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

MEMORANDUM FOR: Distribution List

FEB 07 2000

FROM: Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/DA-Griffiss
153 Brooks Road
Rome, New York 13441-4105

SUBJECT: Landfills #2/3, #4, #5 & #7: Proposed Plans for Remedial Action at the former Griffiss Air Force Base, Rome, New York

Attached are the Proposed Plans for the Remedial Actions proposed at Landfill sites #2/3, #4, #5 and #7, which are located at the former Griffiss Air Force Base, Rome, NY. Fact Sheets for Landfill sites #2/3, #5 & #7 are also attached.

These plans were developed following consultation with the New York State Department of Environmental Conservation and the United States Environmental Protection Agency.

A public review and comment period on the Proposed Plans will run from February 7th through March 8th, 2000. A Public Meeting is scheduled for Wednesday, February 23rd, 2000, 5-7 PM, Floyd Town Hall, 8299 Old Floyd Road, Rome, NY. The Base Cleanup Team (BCT) will hold an Informational Session at the beginning of the Public Meeting to explain the Proposed Plans. The BCT will then receive comments and answer questions from the public. Written comments may be submitted at the above address, and must be postmarked or received no later than March 8th, 2000.

If you have any questions or wish further information, please feel free to contact my office (315-330-2275) at any time.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

ATTACHMENTS:
1. Distribution List
2. Proposed Plans Landfills #2/3, #4, #5 & #7
3. Fact Sheets: Landfills #2/3, #5 & #7
4. Directions to Meeting Site - Floyd Town Hall

RECEIVED
BUREAU OF ENVIRONMENTAL REMEDIAL ACTION

Distribution List – Proposed Plans: Landfill Sites #2/3, #4, #5 & #7

Michael F. McDermott, Co-Chairman
Environmental Coordinator
AFBCA/DA-Griffiss
153 Brooks Road
Rome, NY 13441-4105

Mark Reynolds, Co-Chairman
Director - Planning & Development
Griffiss Local Development Corporation
153 Brooks Road
Rome, NY 13441-4105

Malcolm Didio
Town of Floyd Representative
8136 Camroden Road
Rome, NY 13440

Honorable Joseph A. Griffo
Mayor of Rome
City Hall
Rome, NY 13440

Robert Comis
Commissioner of Public Works
City Hall
Rome, NY 13440

Bruce Carpenter
New York Rivers United
199 Liberty Plaza
Rome, NY 13440

John Fitzgerald - President
Rome-Floyd Resident's Assoc.
7101 North Street
Rome, NY 13440

Angus McKinnon
Base Transition Coordinator
AFBCA/DA-Griffiss
153 Brooks Road
Rome, New York 13441-4105

Michael Gapin
Herkimer/Oneida Counties Comp Plng Prgm
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Utica, NY 13501

Patricia L. Anken
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RD #7, Box 203
Rome, New York 13440

Carmen Malagisi
7643 Kilbourne Road
Rome, NY 13440

Anna Lemaire
Site Manager
AFBCA/DA-Griffiss
153 Brooks Road
Rome, NY 13441-4105

Lynn Hancsak
AFBCA/DA
1400 Key Boulevard
Arlington, VA 22209-2802

Dennis Lundquist, Program Coordinator
Air Force Center for Environmental
Excellence (AFCEE)
3207 North Road, Building 532
Brooks AFB, Texas 78235-5363

Roy Willis, Team Chief
Air Force Center for Environmental
Excellence(AFCEE)
3207 North Road, Building 532
Brooks AFB, TX 78235-5363

Jonathan Greco
NYSDEC
Bureau of Hazardous Waste Remediation
50 Wolf Road
Albany, NY 12223-7010

Randy Vaas
NYSDEC
State Office Building
317 Washington Street
Watertown, NY 13601

Henriette Hamel
Office of Public Health
217 South Salina Street, 3rd Floor
Syracuse, NY 13202

Douglas Pocze
USEPA - Region II
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New York, NY 10007-1866

Barbara A. Moore
Toxic & Hazardous Waste Management Branch
ATTN: CEMRK-MD-H
601 East 12th Street
700 Federal Building
Kansas City, MO 64106-2896

William Ebersbach
Resident Engineer
US Army Corps of Engineers-Ft. Drum
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Fort Drum, New York 13602-5200

Wade Brower
Resident Engineer
AFCEE/ERB
c/o AFBCA/DA-Grifffiss
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Joseph Wojnas
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US Army Corps of Engineers-Ft. Drum
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Town Supervisor -Town of Floyd
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Rome, New York
13440

Lawrence Hineline
RAB TAPP Consultant
Stearns & Wheler
One Remington Park Drive
Cazenovia, NY 13035

Michael Basile
USEPA Public Information
345 Third Street, Suite 530
Niagara Falls, NY 14303

Gerald J. Fiorini
Chairman, Board of County Legislators
Oneida County Office Building
800 Park Avenue
Utica, NY 13501

Ralph J. Eannace, Jr.
Oneida County Executive
Oneida County Office Building
800 Park Avenue
Utica, NY 13501

Honorable Charles Schumer
United States Senator
100 S. Clinton Street
P O Box 7216
Syracuse, NY 13261

Honorable Daniel P. Moynihan
United States Senator
214 Main Street
Oneonta, NY 13820

Congressman Sherwood L. Boehlert
10 Broad Street
Utica, NY 13501

Representative John M. McHugh
Key Bank Building 404A
200 Washington Street
Watertown, NY 13601

Assemblywoman RoAnn M. Destito
Room 401, State Office Building
207 Genesee Street
Utica, NY 13501

Assemblyman David R. Townsend, Jr.
1310 1/2 Utica Street, PO Box C
Oriskany, NY 13424

Senator Nancy Lorraine Hoffman
Room 813
State Office Building
Syracuse, NY 13202

Senator Raymond Meier
State Office Building
Fourth Floor
207 Genesee Street
Utica, NY 13501

John J. Mazzaferro
President of Rome Common Council
Rome City Hall
Rome, NY 13440

John K. Ciccotti
Member-Rome Common Council
132 Second Street
Rome, NY 13440

Keith Townsend
Member- Rome Common Council
212 East Thomas Street
Rome, NY 13440

Angela Petty
Member-Rome Common Council
5238 Oswego Road
Rome, NY 13440

Anthony Pettinelli
Member- Rome Common Council
7825 West Thomas Street
Rome, NY 13440

James W. O'Rourke
Member-Rome Common Council
614 West Bloomfield Street
Rome, NY 13440

John Barry
Member- Rome Common Council
1722 North George Street
Rome, NY 13440

Louis J. DiMarco, Jr.
Member-Rome Common Council
109 Dwight Drive
Rome, NY 13440

John Buczek
Town Supervisor
8299 Old Floyd Road
Rome, NY 13440

Georgianna Larry
Town Clerk
8299 Old Floyd Road
Rome, NY 13440

David Williams
7554 Rickmyer Road
Rome, NY 13440

William E. Smith
7374 Davis Road
Rome, NY 13440

Carey Cohanski
7713 Sandy Circle
Rome, NY 13440

Willard Streiff, Jr
7687 Streiff Road
Rome, NY 13440

Oneida County Sheriff's Dept.
6065 Judd Road,
Oriskany, New York 13424

Chief
Rome Fire Department
158 Black River Blvd.
Rome, New York 13441

John P. Cahill
Commissioner

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action, Room 242
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-4349 • **FAX:** (518) 457-4198
Website: www.dec.state.ny.us

February 3, 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Rd.
Griffiss AFB, N.Y. 13441-4105

Mr. Michael Sorel
AFBCA/DA Plattsburgh
22 U.S. Oval Suite 2200
Plattsburgh, N. Y. 12903

Gentlemen: Subject: Unexploded Ordnance Investigations

The NYSDEC had requested you to include UXO investigations as part of your Superfund activities chiefly to determine the status of chemicals that could have been released from buried ordnance. Our request met varying degrees of success regarding GAFB or PAFB submitting work or sampling and analytical plans. There were instances in which significant field work was completed and NYSDEC became aware of the situation only through its visit to the facility. Other actions included a submission of an UXO investigation report, and upon NYSDEC's commenting, further work was planned by you.

I want to bring to your attention the need for at least a soil sampling program to investigate if organic and inorganic materials were released in areas where residual ordnance is found. Similar to the program at the Seneca Army Depot, I am requesting that a soil sample should be collected where a cache or other significant ordnance explosive waste is or was found. Laboratory analysis should be done by the USEPA Method 8330, typically testing for 2,4,6 - trinitrotoluene, HMX, RDX , tertryl and any other item of significance.

Please contact Jon Greco, Jim Quinn or me if you have questions.

Sincerely
Marsden Chen
Marsden Chen

Unexploded Ordnance Investigations contd.....

cc: Jon Greco
Jim Quinn
File
Daybook

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

FEB - 2 2000

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/DA-X
Environmental Section
153 Brooks Road
Griffiss Air Force Base, NY 13441-4503

Re: *Proposed Plans for Landfills 2/3, 4, 5, & 7*, Draft Final Versions

Dear Mr. McDermott:

This is to notify you that the U.S. Environmental Protection Agency (EPA) has completed its review of the draft final Proposed Plans, dated October 1999, for Landfills (LFs) 2/3, 4, 5 & 7 located at the Griffiss AFB, Rome, New York. As the plans are still subject to public comment, we are deferring our final approval of the proposed remedies until we have reviewed any comments submitted by the public, the Air Force's responsiveness summaries, and the draft Record of Decisions.

The proposed plans for LFs 2/3, 5 & 7 were developed as presumptive remedies. The remedies for these sites include the following: 1) installation and maintenance of an impermeable cover in accordance with current NYS Part 360 landfill closure regulations; 2) long term monitoring of the groundwater, surface water, and sediment in accordance with NYCRR Part 360 Landfill post-closure regulations; 3) evaluation of long term monitoring to evaluate the effectiveness of the presumptive remedy; 4) implementation of institutional controls in the form of deed restrictions; and 5) joint AF/EPA 5-year reviews of the remedies.

The proposed plan for LF 4 (which was actually a waste filled concrete culvert that was removed and disposed of) recommends the following: 1) monitoring of the groundwater in accordance with NYCRR Part 360 Landfill post-closure regulations; 2) evaluation of the monitoring to evaluate the effectiveness of the removal action; 3) implementation of institutional controls in the form of deed restrictions; and 4) joint 5-year reviews of the remedy.

Please note that my staff has separately provided you with site specific comments on each proposed plan which should be incorporated into the final documents prior to proceeding with public notice.

FEB - 7 2000
178139

If you have any questions regarding the subject of this letter, please contact me or have your staff contact Robert Wing of my staff at (212) 637-4332.

Sincerely,

Richard L. Caspe, Director
Emergency and Remedial Response Division

cc: Michael J. O'Toole, Jr, Director
Division of Environmental Remediation, NYSDEC

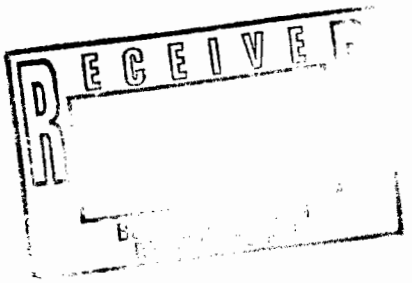
SUMMARY OF TELECONFERENCE COMMENTS
Former Griffiss Air Force Base, Rome, New York
February 1, 2000 @ 2:45 – 4:00PM

PARTICIPANTS:

Name	Organization	Phone Number
Douglas Pocze	USEPA	212-637-4432
Jonathan Greco	NYSDEC	518-457-3976
Michael McDermott	AFBCA	315-330-2275
Catherine Jerrard	AFBCA	315-330-2275
Robert Pender	USACE	816-983-3849
Thomas Ferraro	E & E	716-684-8060
Robert Meyers	E & E	716-684-8060

SUBJECT:

A teleconference was held on February 1, 2000 to discuss AFBCA response to comments (RTC) of January 10, 2000. The following is a summary of items discussed that required an additional response. The initial RTC is provided as well as the teleconference comment followed by a response to aid the reader in what generated the comment.



ESI WORK PLAN TELECONFERENCE SUMMARY AND WRITTEN COMMENTS

General NYSDEC Teleconference Comment

1. *NYSDEC, USEPA, USACE, and AFBCA agreed that all near surface soil samples would be collected from 0" to 3" during these investigations.*

   Response- AFBCA concurs and the ESI and SI work plans will be revised accordingly.

February 1, 2000 Teleconference Comment

1. *NYSDEC requested that that all near surface soil samples would be collected from 0" to 2" during these investigations versus 0" to 3" as previously requested. The 0" to 2" is determined after vegetation has been cleared.*

Response- AFBCA concurs and the ESI and SI work plans will be revised accordingly.

AOI 469 – Building 112

Teleconference Comments

1. *Relocation of the near surface soil samples was discussed at length. It was agreed that a revised figure showing the new proposed sample locations would be faxed to all conference call participants for review.*

   Response- AFBCA concurs and near surface soil sample locations have been revised in the work plan to correspond with those presented in the facsimile which has been approved by all parties.

2. *J. Greco emphasized that near surface soil samples should be collected from either 0 to 2 inches or 0 to 3 inches below ground surface (BGS), instead of from 0 to 6-inches, in order to satisfy NYSDOH requirements.*

   Response- AFBCA concurs; see response to general NYSDEC teleconference comment number 1.

3. *J. Greco and D. Pocze requested that the 12 deeper soil samples from six locations be collected from the area around the former AST location if all near surface samples are clean.*

   Response-AFBCA does not agree to collect these samples around the AST. The AST has been closed and there are no open spill issues to resolve. However, 12 deeper soil samples from six locations will be collected. At each location, one sample will be collected from 6-12" while the other sample will be collected from 12-18". These locations will be located as follows; 1) where near surface samples show elevated levels of COPCs, or 2) if no elevated COPCs are observed, then spaced uniformly over the area, or 3) a combination of one and two.

4. *T. Ferraro asked if we needed to collect any soil samples from the water table.*

   Response- J. Greco and D. Pocze stated that if the soil is clean to a depth of 18-inches no further sampling would be required.

NYSDEC Written Comments

5. *Half of the borings require continuous sampling to groundwater for PCBs. Of these, half should be sampled from 0-2", 6"-1', 1'-3', 3'-5', etc..., while the other half should be sampled from 0"-2", 2"-2', 2'-4', etc... Other than that the new locations provided in your recent fax look good.*

   Response- AFBCA does not agree to collect deeper samples at this time. Due to no observed evidence of a release at Building 112, no soil borings greater than 18" in depth will be installed at this time.

USEPA Written Comments

6. *For AOI 469, grid spacing should be revised to ensure sampling will address all areas of the suspected site. For AOI 469, 5 or 6 additional samples should be spaced within the two horizontal rows proposed for sampling located north of the building.*

   Response- AFBCA concurs and near surface soil sample locations have been revised in the work plan to correspond with those presented in the facsimile which has been approved by all parties.

February 1, 2000 Teleconference Comment

1. *NYSDEC restated that half of the borings require continuous sampling to groundwater for PCBs. Of these, half should be sampled from 0-2", 6"-1', 1'-3', 3'-5', etc... NYSDEC stated this was required per NYDSEC peer review and the site could not be closed out without this sampling.*

Response- AFBCA proposes the following sample collection for the site:

- Collection of the 22 near surface samples (0" to 2") at the locations previously agreed to by all parties.
- Collection of 11 boring samples (half of the 22 surface samples). An intermediate (5' to 7') and a groundwater interface (12' to 14') will be collected at each boring i.e. 22 subsurface samples.
- Locations of the 11 borings will be as follows; 1) where near surface samples show elevated levels of COPCs, or 2) if no elevated COPCs are observed, then spaced uniformly over the area, or 3) a combination of one and two.

OTH-5485-2 Trash Scatter, Dump

Teleconference Comments

1. *J. Greco stated that even if all proposed samples were clean we would still need to collect additional near surface soil samples if our goal is to never have to do additional work at this site.*

   Response- AFBCA concurs and the work plan has been revised to include collection of six near surface soil samples (i.e., from drum and chemical bottle locations etc.) for TCL VOCs, SVOCs, Pesticides, PCBs, and TAL Metals.

February 1, 2000 Teleconference Comment

1. *The agencies requested clarification on how the six near surface soils were determined and where the samples would be located.*

Response- Robert Pender (USACE), Bob Meyers (E & E) and Gene Florentino (E & E) visited OTH-5485-2 on November 9, 1999 to re-evaluate the proposed work. Based on visual observations and the size of the site (approximately 40' by 40' where debris is scattered), six samples appear adequate to determine if there has been a release. These six samples will be "biased" around areas of potential releases (i.e., from drum and chemical bottle locations etc.) and analyzed for TCL VOCs, SVOCs, Pesticides, PCBs, and TAL Metals.

SI WORK PLAN TELECONFERENCE SUMMARY AND WRITTEN COMMENTS

USEPA General Written Comments.

1. *Section 1.1 indicates that the purpose of this SI is to "delineate the extent of the groundwater contamination and provide enough information to evaluate risks to human health and the environment." Therefore, please perform a risk assessment for human health and the environment. I recommend the human health assessment include an unrestricted use scenario otherwise deed restrictions are required.*

   Response- The results of this investigation will be used to determine if risk assessments are warranted at these sites.

AOC 9 (WSA LANDFILL)

5. *Since this site is an AOC, provisions should be made to perform a baseline human health risk assessment, as well as an appropriately detailed environmental risk assessment.*

   Response- See response to USEPA general written comment 1.

February 1, 2000 Teleconference Comments

1. *The above comments were reiterated by the agencies. The agencies stated this site is an AOC and as such, the Interagency Agreement calls for risk assessments. A HHRA is required unless a "presumptive" remedy is selected for the site.*

Response- Results of this investigation will be used to determine what exposure pathways need to be evaluated to assess risk for this site(s). The AFBCA has evaluated previous sampling data and the proposed sampling plan and determined it is of adequate quality and quantity to support a HHRA. Start of the HHRA will not commence until the sampling effort is complete and exposure pathways are agreed upon by the regulatory agencies and AFBCA.

AOC 9 (WSA LANDFILL)

NYSDEC Written Comments.

1. *Page 3-9, Section 3.112.4: The taking of soil samples from the location of the four permanent monitoring wells should be avoided, since it is unlikely the well locations will be coincident with the source area. In place of the above, I request that trenches be excavated in the location of the former munitions storage igloos in an attempt to locate the contaminant source. Samples should be taken of the soil/waste within the trench so that the final comparison of contaminant levels to screening values will have validity.*

   Response- See response to teleconference comment 2 and 7.

February 1, 2000 Teleconference Comments

1. NYSDEC asked how many soil/waste samples would be collected from within the trenches at AOC 9.

Responses- AFBCA stated that soil/waste samples would be collected from each of the six trenches at AOC 9. One soil sample will be collected from the most contaminated interval in each trench. If no contamination is noted, then a sample will be collected from the bottom of the trench.

OTH AND PCI SCREENING TELECONFERENCE SUMMARY

OTH-013

1. *D. Pocze asked why this site is recommended for NFS, and if the permit has been properly closed.*

   Response- G. Florentino stated that this site is NFS because the incinerator is inactive, and the base does not plan to use it in the future.

2. *J. Greco stated that the AFBCA needs to determine the status of all incinerator OTH's permits.*

   Response- AFBCA contacted Mr. C. Randy Vaas, Regional Permit Administrator for the New York State Department of Environmental Conservation. Mr. Vaas stated that formerly utilized incinerators at the Griffiss AFB are considered closed based on the expiration or recent surrender of air emissions permits associated with the incinerators. Closure sampling of the incinerator sites/facilities for the closure of air emissions permits is not required. The above information was received from the AFBCA in a Memorandum For Record dated October 25, 1999.

February 1, 2000 Teleconference Comment

1. *The agencies requested that the "Recommendation" field in the Screening of Other Miscellaneous Environmental Factors Table be modified for the incinerator sites. The "Recommendation" field should be changed from "NFS" to "COP".*

Response- AFBCA concurs and will update the Screening of Other Miscellaneous Environmental Factors Table that will be submitted at a later date.

2. *J. Greco requested that the specific regulatory authority be included in the tables.*

Response- AFBCA concurs and will update the Screening of Other Miscellaneous Environmental Factors Table that will be submitted at a later date.

OTH-222-3

1. *J. Greco commented that he believes this site was sampled and found to be clean during the RI, and that there is a letter report that B. Moore (USACE) is aware of which he would like included in the justification.*

   Response- A review of the existing reports, including the RI was conducted by E & E, however, no record of sampling at OTH-222-3 was found. USACE cannot locate additional letter reports for this site.

February 1, 2000 Teleconference Comment

1. *AFBCA noted that the letter report dated February 21, 1995 had been located after submitting the RTCs. Information from this report will be used to update the Screening of Other Miscellaneous Environmental Factors Table that will be submitted at a later date.*

OTH-661

1. *D. Pocze stated that the trash on site should be removed, and confirmatory sampling should be performed to facilitate property transfer if the base wants unrestricted use.*

   Response- T. Ferraro and G. Florentino questioned the need for confirmatory sampling of household trash, and C. Jerrard stated that she would get back to D. Pocze about this issue. In addition, Robert Pender (USACE), Bob Meyers (E & E) and Gene Florentino (E & E) visited OTH-661 on November 9, 1999 to evaluate the proposed work. No evidence of a release to the environmental was observed.

2. *D. Pocze concluded by stating that he believed 3 near surface soil samples and 3 subsurface soil samples collected at the groundwater interface would be sufficient.*

   Response- Robert Pender (USACE), Bob Meyers (E & E) and Gene Florentino (E & E) visited OTH-661 on November 9, 1999 to evaluate the proposed work. No evidence of a release to the environmental was observed. However, OTH-661 has been added to the ESI program as requested. The work plan will be revised to include; collection of five confirmatory near surface soil samples; debris removal; and a geophysical survey if warranted.

February 1, 2000 Teleconference Comment

1. *AFBCA informed the regulatory agencies that a previous cleanup of the site had been completed in 1995 with NY State oversight. Therefore, AFBCA proposes to remove this site from future study. AFBCA will provide documentation and a point of contact (POC) to NYSDEC. However, for provisional purposes, a sampling plan will be included in the Workplan (WP) as discussed previously.*

JG

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

FEB 0 1 2001

MEMORANDUM FOR Mr. Jonathan Greco
New York State Department of
Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010

Mr. Douglas Pocze
USEPA - Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

any long-term monitoring required for these sites?
MC 2/2/01

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome NY 13441-4105

SUBJECT: Monitoring Well Decommissioning

1. The Griffiss Local Development Corporation has requested the abandonment of three monitoring wells: G193-MW02, G016-MW01, and G016-MW02. New construction is planned for the site. These wells were associated with Area of Interest Sites 16 and 193 on former pads 5 and 6. Since both sites have been closed with regulator concurrence, the wells are no longer required.

2. In addition, the Air Force Research Laboratory has requested the abandonment of three monitoring wells: 26-MW01, 26-MW02, and 26-MW03. A parking lot expansion is planned for the site. These wells were associated with the Building 26 Source Removal Area of Concern. The NYSDEC petroleum spill at former building 26 has been closed by NYSDEC. The final Proposed Plan for No Further Action is being developed. Therefore, the wells are no longer required.

3. The wells will be decommissioned in accordance with NYSDEC Groundwater Monitoring Well Decommissioning Procedures (NYSDEC, October 1996). If you have any questions, please contact Michael Wojnas at 315-330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

cc: Mr. Roy Willis, AFCEE
Mr. Gaby Atik, FPM Group
Mr. Bruce Mero, AFRL
Mr. Steve DiMeo, GLDC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JG

FEB 01 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Re: Review of the Draft Finding of Suitability to Lease (FOSL) and Supplemental EBS for Building 782

Dear Mr. McDermott:

EPA has reviewed the draft Finding of Suitability to Lease (FOSL) and the Supplemental Environmental Baseline Survey (SEBS) for Building 782, dated January 3, 2000. Upon review of the documents and supporting information, the following are my comments.

General Comments

1) Please identify the restricted areas (e.g., no digging drilling or other ground disturbing activities) on the Attachment 2 figure.

Specific Comments

2) Page 4, On-Base Groundwater Contamination. Please revise wording as follows: "the groundwater on the property was investigated and analytical results are presented in the Draft Final RI report dated December 1996. Releases to the groundwater of petroleum hydrocarbons have occurred at the property, associated with site SD-41."

3) Page 5, Section 5.2.2, Table. Why are Sixmile Creek and WSA Lagoon grouped together as on AOC/IRP Site? To my knowledge this sites are not the same. Please clarify and revise.

4) Page 5, SS-34, Building 786. Please revise wording as follows: "Liquids used in the area included oil, solvents and fuels. An aboveground ... replaced with three underground storage tanks (USTs) . The draft final Remedial Investigation (RI) was issued in December 1996. Contaminated surface soil will be removed in 2000 in the area of the former AST and additional investigation of the contaminated subsurface soils and groundwater will be performed under project number JREZ97-6042B."

5) Page 9, Section 5.8, 3rd paragraph. Reference is made to the procedures the lessee is to follow regarding ground disturbing activities. However, all digging, drilling or other ground disturbing activities are prohibited. This paragraph should be clarified.

6) Attachment 1, Visual Site Inspection. Reference is made that paint is peeling within the interior and therefore, the assumption can be made that the Lessee will take some kind of action (e.g., sand and paint the area). Because Section 5.5 identifies that Lead Base Paint is probably present and that the Lessee is responsible for testing, managing and maintaining the paint/LBP, the AF should ensure that the Lessee has some LBP management plan prior to the lease.

7) Attachment 3, AF Form 813. Reference is made to an "adverse effect" regarding the air quality. However, no mention was made within the FOSL regarding air emissions or permits. Please include a reference that the Lessee shall be responsible for obtaining and complying with all air emission permits and standards."

Should you have any questions, I can be reached at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Remedial Project Manager

cc: J. Greco, NYSDEC
M. Wojnas, GAFB
L. Hancsak, AFBCA/NE
S. DiMeo, Executive Director (Griffiss Land Development Corporation, 153 Brooks Road, Griffiss AFB, NY 13441

Fact Sheet

LANDFILLS 2/3 AREA OF CONCERN



Former Griffiss Air Force Base
Rome, New York

February 2000

Summary of Proposed Plan

Public Comment Period February 7, 2000 to March 8, 2000

Background

Griffiss Air Force Base (AFB) is a former United States Air Force (Air Force) installation covering approximately 3,552 acres in the lowlands of the Mohawk River Valley in Rome, Oneida County, New York. In 1987, the United States Environmental Protection Agency (EPA) added Griffiss AFB to the National Priorities List, and in 1990 the Air Force, the New York State Department of Environmental Conservation (NYSDEC), and the EPA entered into a ***Federal Facilities Agreement (FFA)***. In 1993, Griffiss AFB was designated for realignment under the federal Base Closure and Realignment Act and was subsequently deactivated. Before transfer of the property for community redevelopment, the Air Force is required to identify ***Areas of Concern (AOCs)*** on base, conduct a Remedial Investigation (RI), and recommend remedial actions. The public participates in the process and is encouraged to comment on the remedial action proposal.

FFA - an agreement between the EPA, the NYSDEC, and the Air Force to evaluate waste disposal sites at the former Griffiss AFB and perform remediation if necessary.

Area of Concern (AOC) - a location where hazardous substances are or may have been placed or may be located.

Landfills 2/3 AOC Description

Landfills 2/3 is an approximately 13-acre area located in the east-central portion of the former Griffiss AFB (see Figure 1). Because Landfill 3 is located within the border of Landfill 2, the two units are designated as a single AOC. Landfill 2 operated from 1973 to 1982 as a solid waste landfill. Landfill 3, an asbestos cell, operated from 1980 to 1981. The landfills are unlined; however, three areas of Landfill 2 are capped with up to 1 foot of natural soils and clay.

Surface water runoff from a portion of the northeastern section of the site drains to the northeast toward a tributary of Slate Creek, which in turn drains into Six Mile Creek. The remainder of the site drains south, directly to the floodplain of Six Mile Creek.

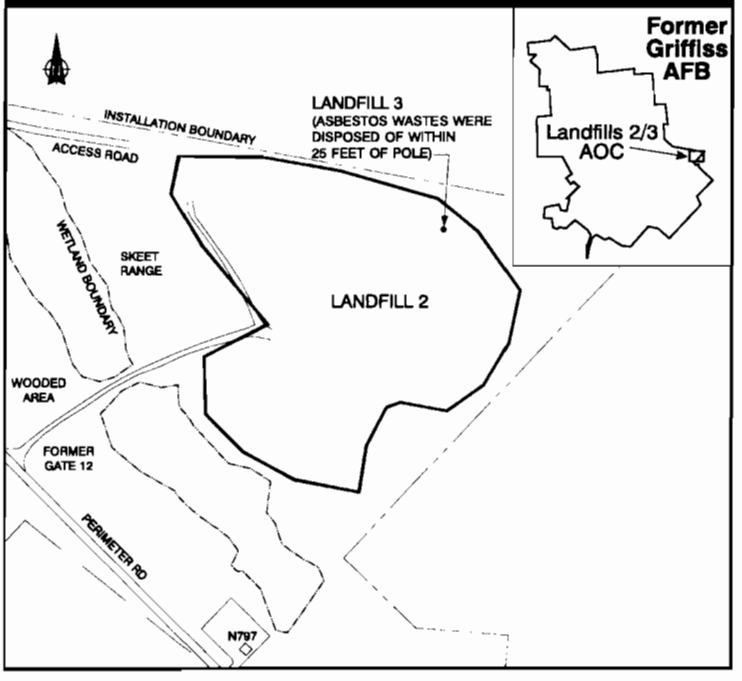
Summary of Site Activities

A groundwater monitoring well was installed in 1981, and two additional wells were installed in 1983. The analytical results for a 1988 groundwater sampling round indicated the presence of metals, nitrate, and sulfate.

In 1994 an RI was performed. Analysis of groundwater, surface water, sediment, and surface soil samples collected during the RI indicated the presence of various organic compounds, pesticides/***PCBs***, petroleum hydrocarbons, glycols, cyanide, and dioxins. In the RI report, concentrations of contaminants were compared to the lowest (most stringent) regulatory standard or guidance value. Numerous compounds in each environmental media exceeded the most stringent regulatory standard or guidance value.

Polychlorinated Biphenyls (PCBs) - a group of synthetic organic chemicals with varying harmful effects.

Figure 1



As part of an RI Supplemental Investigation performed in 1997, two test pits were excavated to look for potentially buried drums, but no drums were found. A Landfill Cover Investigation performed in 1997 further defined the extent of the existing cover, the size of the landfill, and the landfill boundary. In 1998 a surface debris consolidation project was performed in which accumulated surface debris and localized soil contamination from the various on-base landfills were collected and placed into Landfill 2. In addition, 27 drums (19 empty) were found along the southern toe of the landfill and were excavated, sampled, and properly disposed.

Summary of Site Risks

A baseline risk assessment was conducted to evaluate current and future potential risks to human health and the environment associated with contaminants found during the RI at the Landfills 2/3 AOC. The results of the risk assessment were considered in the cleanup goal selection process.

The human health risk assessment was conducted to determine whether chemicals detected at the Landfills 2/3 AOC could pose health risks under current and proposed future land uses if no remediation occurs. The current and future land use designations are open space and wetlands/surface water. Persons who would most likely come into contact with the contaminants include recreational users of the land, residential users, agricultural users, and occupational users (landscape workers and future industrial workers). Multiple exposure pathways for each receptor group were addressed in the risk assessment.

Exposure Pathways
- Ingestion of groundwater, surface soil, surface water, sediments, crops irrigated with groundwater
- Inhalation of airborne chemicals, fugitive dust
- Dermal contact with groundwater, soil, surface water, sediments

The assessment determined that a potential risk to human health may occur from ingestion of groundwater by future residential and agricultural users of the land and industrial workers. The chemicals contributing the majority of this risk included manganese, barium, and arsenic. Therefore, the chemicals detected at the site likely do not present an unacceptable risk as long as groundwater is not used for drinking water.

A risk assessment for ecological receptors at the Landfills 2/3 AOC, including raccoons, shrews, and American woodcocks, was conducted during the RI. The results of the assessment indicated a potential for harmful effects to the shrew. There are no federally listed threatened or endangered plant or animal species at the site; however, several state-listed endangered plants and animals have been observed on or in the vicinity of the base.

Preferred Remedial Alternative

EPA regulations require that a remedial action must be protective of human health and the environment, cost effective, and provide permanent solutions and treatment technologies to the maximum extent practicable. The proposed remedial action alternative for the Landfills 2/3 AOC includes:

- Installation of a low-permeability soil cover over the entire landfill in accordance with 6 NYCRR Part 360 landfill closure regulations dated April 1,1987, to reduce the amount of water infiltration through the landfill;
- Maintenance of the cover and long-term monitoring of the groundwater, surface water, sediment, and biota;
- Monitoring the groundwater and stream environment downgradient of the site to evaluate the effectiveness of the remedy; and
- Implementation of institutional controls in the form of deed restrictions of the main landfill boundary to prohibit inappropriate use of the area and groundwater, and to ensure the soil cover is not damaged and the area is maintained as a landfill.

Any wetlands disturbed during the remedial action will be restored. This remedy is expected to minimize leachate generation, which in turn will reduce the potential for transporting contaminants from the landfill to Six Mile Creek via groundwater migration.

Additional details on this site and the environmental program are available for review in the administrative record.

Administrative Record
Document file located at 153 Brooks Road, Griffiss Business and Technology Park (315) 330-2275 and Information Repository at Jervis Public Library, Rome, NY (315) 336-4570

Public Meeting
5:00 pm February 23, 2000; Floyd Town Hall, 8299 Old Floyd Road, Rome, NY

AFBCA/DA - GRIFFISS

PARCEL F9B

FINAL

FINDING OF SUITABILITY TO TRANSFER (FOST)

FEBRUARY 2000

FINDING OF SUITABILITY TO TRANSFER (FOST)
PARCEL F9B
GRIFFISS AIR FORCE BASE (AFB), NEW YORK

1. PURPOSE

1.1 The purpose of this FOST is to identify environmental factors associated with certain property on Griffiss AFB, New York and to determine whether the proposed transfer of such property is consistent with the protection of human health and the environment. The property is described in Section 2 below.

1.2 The Oneida County Industrial Development Agency (OCIDA) has inquired into acquiring property pursuant to the Defense Base Closure and Realignment Act of 1990, Pub. L. No. 101-510 and Section 2903 of Pub. L. No. 103-160 for the purpose of economic redevelopment of Griffiss AFB. Such a redevelopment will include the capital improvements as specified in the reuse plan, including but not limited to:

- The construction of a new local high school has been approved by the local community for a section of the property.
- The planned reuse for Parcel F9B is institutional/educational (central portion) and public/recreational (northern portion).

1.3 This FOST is a result of a thorough analysis of information contained in the following documents: (1) Final Environmental Impact Statement (FEIS) for the Disposal and Reuse of Griffiss Air Force Base, New York, November 1995; (2) Basewide Environmental Baseline Survey (EBS) for Griffiss Air Force Base, New York, September 1994; (3) Basewide Environmental Baseline Survey Update, March 1997; (4) Partial Record of Decision (PROD), June 1996; (5) Draft Final Remedial Investigations (RI) Report dated December 1996; (6) Griffiss Area of Interest (AOI) Reports dated November 1996 (Group 1), May 1997 (Group 2 and 3) and July 1998 (Expanded Site Investigation); (7) Unexploded Ordnance Archives Search Report - Recommendations and Findings, dated November 1997; (8) Final BRAC Removal Actions (UXO) Report, dated 30 October 1998; (9) Phase II Archaeological Investigations of 20 Sites at Griffiss AFB, dated April 1997; and (10) Visual Site Inspections (VSIs) conducted in October 1999. Visual Site Inspection (VSI) forms describing information gathered during the VSIs are included in Exhibit 1 of this document.

2. PROPERTY DESCRIPTION

Parcel F9B is shown on the map (Exhibit 2) and is comprised of 65 acres located in the southwestern portion of the Base. The property includes the following facilities:

Facility Number	Air Force Use	Square Footage
525	Security Police Canine Kennel	1920
654	Liquid Fuel Pumping Station	2107
5030	Trailer Park (50 Spaces)	N/A
5450	Athletic Field (Softball/Soccer)	N/A
5462	Running Track (1 acre)	N/A
5735	Truck Liquid Fuel Fill Stand (2 outlets)	N/A
5891	Outdoor Recreation Pavilion	476
6085	Tennis Courts (3 courts)	N/A
6100	Basketball Court (2 courts)	N/A
6244	Loading and Unloading Platform	N/A

The property also includes a permanent easement to Niagara Mohawk Power Corporation that will be transferred with the property.

3. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE

The environmental impacts of this proposal have been adequately analyzed and disclosed in compliance with NEPA. These impacts are analyzed in the FEIS and are Categorically Exempted from further analysis as described in CATEX #A2.3.11 and documented on the attached United States Air Force (USAF) Form 813 (Exhibit 3). Based on this analysis, the environmental impacts of proceeding with the Transfer are not sufficiently adverse to human health and the environment to out-weigh the other advantages to the community and the public interest of this Transfer and to prevent the transference of the property. The draft Historic Structures Survey dated October 1995 was issued for review and revised on July 14, 1998. Comments on the revised draft were received from the NY State Office of Parks, Recreation and Historic Preservation on September 9, 1998. Based on the comments received, all buildings located within the property have been released from consideration.

4. ENVIRONMENTAL CONDITION OF THE PROPERTY

Based on a review of the VSIs and the Supplemental Environmental Baseline Survey (SEBS), the category designation for the property is now considered Department of Defense Environmental Condition Category 3. Category 3 areas are areas where release, disposal, and/or migration of hazardous substances has occurred, but at concentrations that do not require a removal or remedial response.

The United States Environmental Protection Agency (USEPA) concurs that a removal or remedial response is not required.

5. DEED RESTRICTIONS AND NOTIFICATIONS

The environmental documents listed in Section 1.3 were evaluated to identify environmental factors which may warrant constraints on certain activities in order to ensure that the intended

use as institutional/educational (central portion) and public/recreational (northern portion) is consistent with protection of human health and the environment. Such constraints are generally embodied as restrictions in the deed or as specific notifications in the deed or other documents supporting the transaction. The factors that require either deed restrictions or specific notifications are identified in Exhibit 4 and are discussed below. The remaining factors listed in Exhibit 4 pose no threat to human health or the environment and, therefore, require neither deed restriction nor notifications to the transferee.

5.1, Hazardous Substances/Waste Notification

A hazardous substance notification need not be given because no hazardous substances in quantities exceeding 1,000 kilograms or the hazardous substance's reportable quantity found at 40 CFR Part 302.4 (whichever is greater) were stored for one (1) year or more, or were known to have been released, treated, or disposed of on the property. In addition, no evidence of release of any hazardous substances to the environment was identified during the VSIs. Environmental sampling conducted at the sites described in Section 5.2 did result in detection of hazardous substances, but the levels do not indicate that releases greater than the reportable quantities occurred. The concentrations do not require a removal or remedial response.

5.2. Installation Restoration Program (IRP) Sites, Areas of Concern (AOCs), Areas of Interest (AOIs), and OTHER Environmental Factors (OTH)

The USAF, the USEPA, and the New York State Department of Environmental Conservation (NYSDEC) entered into a Federal Facility Agreement (FFA) effective August 21, 1990, under Section 120 of CERCLA.

There is one (1) IRP site located within the property.

IRP SITE NO	SITE CLASS	SITE NAME
ST-04	Source Removal	Bulk Fuel Storage Area - Barge Canal

ST-04, Bulk Fuel Storage Area - Barge Canal, is a Source Removal AOC. A proposed plan for no further action for the petroleum spill (NYSDEC Spill Number 9104707) at the 275-gallon UST site has been prepared by the Air Force. The Proposed Plan is currently under regulatory review. The remainder of the Barge Canal Facility is not included in this parcel and is undergoing closure under project JREZ99-6020.

There are seven (7) AOI sites and one railroad track within the property that were originally closed as no further study. The USEPA, NYSDEC, and New York State Department of Health (NYSDOH) requested additional sampling at these sites prior to transfer of the property for use as a new high school. The United States Environmental Protection Agency (USEPA) concurs that a removal or remedial response is not required.

AOI No.	AOI DESCRIPTION	EBS ID No.	GROUP
53	Bldg 511 Former Coal Storage Area	OTH-511	III
68	Ellsworth Road Former Drum Storage Area	OTH-0513	III
69/448	Woodhaven Housing-Former Storage Area/Open Storage and Drainage Ditch	OTH-0440	III
70	Current Trailer Park - Former Coal Storage Area	OTH-5030-1	III
71	Trailer Park - Former Drum Storage Area - Tuscarora Drive	OTH-5030-02	III
72	Mobile Avenue-Former Drum Storage Area	OTH-0525	III
169	Building 5591 Railroad Load/Unload Area	N/A	III
---	Railroad Track	N/A	III

AOI 53, Bldg. 511 Former Coal Storage Area, is a former coal storage area (1940s-1960s) for the former hospital steam plant. AOI 53 was recommended for no further study by the Air Force in its Confirmatory Sampling Report for Group III Areas of Interest dated October 1997. **OTH-511** also identifies this site.

AOI 68, Ellsworth Road Former Drum Storage Area, was used for equipment and material storage between 1955 and 1960. Since there was no evidence of spills and no documentation of disposal, no further study was recommended for this site. **OTH-0513** also identifies this site.

AOI 69/448, Woodhaven Housing - Former Drum Storage Area/Open Storage and Drainage Ditch, was a paved and well-organized storage area in the 1960s-1970s. A review of aerial photos confirmed that drums were stored in this area. Since there was no evidence of spills and no documentation of disposal, no further study was recommended for this site. **OTH-0440** also identifies this site.

AOI 70, Current Trailer Park - Former Coal Storage Area, refers to a former coal storage area used for open coal storage from the early 1960s until the mid-1970s. AOI 70 was recommended for no further study by the Air Force in its Confirmatory Sampling Report for Group III Areas of Interest dated October 1997. **OTH-5030-1** also identifies this site.

AOI 71, Trailer Park - Former Drum Storage Area - Tuscarora Drive, refers to a service yard associated with and adjacent to the coal storage area (OTH-5030-1). The trailer park was built on the site in 1975. A storage area was visible in aerial photos from 1960 until 1972. The presence of drums in this area could not be confirmed. Since there was no evidence of spills and

no documentation of disposal, no further study was recommended for this site. **OTH-5030-02** also identifies this site.

AOI 72, Mobile Avenue - Former Drum Storage Area, was a storage area from 1967 through the early 1980s. A review of aerial photos showed even rows of unknown material in the southern and central portion of the site. During the mid-1970s, two (2) small areas of storage materials and possible drums were observed. Since there was no evidence of spills and no documentation of disposal, no further study was recommended for this site. **OTH-0525** also identifies this site.

AOI 169, Building 5591 Railroad Load/Unload Area, was used for the loading and unloading of supplies from rail cars. Specific material and release history is unknown. Since no spill or any other hazardous features were noted in any of the aerial photos, no further study was recommended for this site.

Railroad Tracks are present along the Western boundary of the property. The railroad tracks were not previously evaluated.

The eight (8) sites above were sampled during the summer of 1999 to confirm the no further study designation. A confirmatory sampling report was issued on September 3, 1999. Based on the sampling results and subsequent evaluation, NYSDEC, NYSDOH, and USEPA concurred that the property is suitable for the intended reuse as institutional/educational (central portion) and public/recreational (northern portion).

The remainder of the AOIs within the boundaries of the property have been classified as No Further Study or Covered Under Other Programs during the AOI investigations. All of the Other (OTH) Environmental factors listed in the EBS have been described under the AOI descriptions above.

The Deed will include the requirement for additional evaluation of a portion of the property within AOI 72 should the property use change from institutional/educational to residential. Any additional evaluation would be the responsibility of the transferee. The extent of the restricted area is indicated on Exhibit 2.

Covenants will be included in the Deed to ensure that any response or corrective actions that are the responsibility of the Air Force, found to be necessary after the date of delivery of the Deed, will be conducted by the Air Force. Provisions will also be included in the Deed to allow the Air Force, NYSDEC and USEPA and their representatives access to the property in any case in which any such response or corrective action is found to be necessary, or where such access is necessary to carry out a response or corrective action on adjoining property. The transaction documents will include provisions that the transferee and its successors and assignees will be required to comply with all applicable Federal and State laws and regulations with regard to activities affecting the groundwater in the aquifer.

5.2.1, Adjacent IRP Sites and AOCs

There are two (2) IRP sites located on adjacent property which may impact the property. The IRP site descriptions are listed as follows:

AOC/IRP Site ID	Site Class	Site Name
SD-31	AOC	Three Mile Creek
ST-44	AOC	Electrical Power Substation

SD-31, Three Mile Creek, is an AOC located northeast of the property. The Air Force has recommended in its Draft Final Remedial Investigations (RI) report dated December 1996 that a feasibility study be performed to evaluate potential remedial actions required to mitigate chemicals of concern in the surface water and sediments. The draft feasibility study (FS) was issued in January 1999. USEPA comments on the draft FS were received on April 8, 1999 and comments were received from the NYSDEC on April 9, 1999. Additional sampling was performed in November 1999.

ST-44, Electrical Power Substation, is an AOC located northeast of the property. The substation had soils contaminated with Polychlorinated Biphenyl (PCBs) and Polycyclic Aromatic Hydrocarbons (PAHs). The December 1996 Draft Final Remedial Investigations (RI) recommended that a feasibility study be performed. The Air Force conducted an interim removal action in 1998, by excavating soil and disposing of the PCB-contaminated soil off site. The closure report was distributed in 1999.

5.3. Underground and Aboveground Storage Tanks (USTs and ASTs)

Table 5.3 lists the storage tank numbers, locations, identified releases, and status of the tanks that are/or were located on the property.

Table 5.3.
Storage Tanks

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number/Status	Tank Status/ Removal Project Number	Tank Closure Date*
AST-0525 / Fuel Oil (#1/2/4)	1000	Building 525	NONE	Removed 1997/930042	1997
UST-0525 / Fuel Oil (#1/2/4)	1000	Building 525	NONE	Removed 1992/910088	1992
UST-0540 / Fuel Oil (No Tank)	550	Building 540	NONE	No tank found during exploratory excavation/960042A	1996

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number/Status	Tank Status/ Removal Project Number	Tank Closure Date*
UST-0654-01 / JP-4/ JP-8/Water	2000	Building 654	9810949/OPEN	Removed 1998 996020	1998
UST-0654-02 / JP-4	275	Building 654	9104707/OPEN	Removed 1991/910088	1991

* All tanks listed as closed on the above table have been removed from the Griffiss AFB Major Oil Storage Facility license.

The transaction documents will include a restriction for UST-654-01 and UST-654-02 (restricted areas are depicted in Exhibit 2) that does not allow construction activities in the subsurface soils or groundwater until the NYSDEC STARS Memo cleanup requirements are met, and cleanup actions are executed by the Air Force to the satisfaction of the NYSDEC Spills Program personnel. Scheduling of construction activities shall be properly coordinated with the Air Force and the NYSDEC to ensure protection of human health and the environment. The transaction documents will also include provisions for access for the Air Force, NYSDEC and USEPA and their representatives to the above open spill sites for investigation purposes.

5.4. Petroleum, Oil and Lubricant (POL) Distribution Systems

There are three POL systems located on the property to be transferred. Table 5.4 provides details of the POL systems including POL number, location, description, release/spill number/status and system status, including closure dates if applicable. The Transferee will be responsible for complying with any applicable Federal, state and local environmental regulations and for obtaining any required permits for operation of the POL systems.

Table 5.4.
POL Systems

POL Number	Location and Description	Release / Spill Number/ Status	POL System Status
POL-654	Barge Canal Facility (BCF) - B/654 and fuel lines to ASTs-653, 655 and 657	9104707/OPEN	CLOSED IN PLACE /1998
POL-5685-1	Jet fuel transfer line (12") from B/654 to SAC Hill	None	CLOSED IN PLACE /1995
POL-5735	Truck Fill Stand - BCF - two jet fuel outlets	None	CLOSED IN PLACE /1998

The transaction documents will include a restriction for POL-654 (restricted area is depicted in Exhibit 2) that does not allow construction activities in the subsurface soils or groundwater until the NYSDEC STARS Memo cleanup requirements are met, and cleanup actions are executed by the Air Force to the satisfaction of the NYSDEC Spills Program personnel. Scheduling of construction activities shall be properly coordinated with the Air Force and the NYSDEC to ensure protection of human health and the environment. The transaction documents will also include provisions for access for the Air Force, NYSDEC and USEPA and their representatives to the POL-654 site for investigation purposes.

5.5. Asbestos Containing Material (ACM)

An asbestos survey was performed in several buildings on the property between 1990 and 1992 and reported in Table H-1 of the Basewide EBS. An additional comprehensive survey was performed in the fall of 1994. ACM was identified in Building 654. Notice will be provided in the Deed that the property contains ACM and that the transferee will be responsible for complying with all applicable Federal, State and local laws, rules and regulations as they pertain to asbestos.

5.6. Lead-Based Paint (LBP) Non-Residential Facilities

LBP is assumed not to be present in Building 525 since it was constructed after 1978. LBP might be present in Building 654. The condition of possible LBP is noted in the VSI for Building 654 (Exhibit 1). The Air Force has classified this facility as a facility with a probability of having LBP because it was constructed prior to 1978 when the maximum allowable content of lead in paint was reduced. The transferee will be notified through transfer documents of the possible presence of LBP in this facility. The transferee will be responsible for managing all LBP including rubblized material generated during demolition which contains LBP and potential LBP in compliance with NYSDEC Solid Waste Regulations and all other applicable laws and regulations.

5.7. Sanitary Sewer Systems (Wastewater)

All buildings in the property are connected to a sanitary sewer. The transaction documents will require the transferee to submit an application for discharging to the sanitary sewer for any new construction and to meet all applicable wastewater discharge permit standards.

5.8. Solid Waste Management (by Transferee)

The transferee is anticipated to generate solid waste during the demolition of various buildings and will be responsible for managing all solid waste in accordance with NYSDEC Solid Waste Regulations and all other applicable laws and regulations.

5.9. Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property to be transferred has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report -

Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven (11) munitions related sites are identified to be present within the property. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property to be transferred.

All ground disturbing activities performed by the transferee shall be performed in a manner such that the identification of ordnance related material may occur. Upon discovery of any suspected ordnance related material the appropriate authorities shall be notified.

6. PUBLIC COMMENTS

On July 20, 1999, public notice of the proposed transfer of the property to the OCIDA was provided by publication in one (1) local newspaper (Exhibit 5). No public comments were received.

7. REGULATOR COORDINATION

This FOST was originally prepared as a FOSET (Finding of Suitability for Early Transfer). The NYSDEC and the USEPA were notified of the initiation of the FOSET and SEBS in a conference call on July 1, 1999. Consolidated draft documents were provided on July 15, 1999, for formal review and comment. Regulator comments (Exhibit 6) were received on July 30, 1999 from the NYSDEC and were incorporated or addressed in the document. The USEPA did not have any comments on the draft FOSET. A draft final FOSET was provided for final coordination on September 22, 1999. Based on results of sampling performed on the property, the regulators concurred that the FOSET should be converted to a FOST. Comment letters were received from the NYSDEC and NYSDOH on October 8, 1999 and from the USEPA on October 20, 1999. A draft final FOST was provided for final coordination on November 3, 1999. Concurrence letters from the NYSDEC, dated November 8, 1999 and the USEPA dated December 2, 1999 indicting that the property is suitable for the intended use as stated in the FOST are attached.

8. UNRESOLVED REGULATOR COMMENTS

All comments provided by the regulators were addressed and/or incorporated in this document. The Air Force's response to these comments is provided in Exhibit 7. There were no unresolved comments.

9. FINDING OF SUITABILITY TO TRANSFER

The proposal to transfer this property has been adequately assessed and evaluated for: (a) the presence of hazardous substances and contamination on the property; (b) environmental impacts anticipated from the intended use of the property; and (c) the adequacy of use restrictions and notifications to ensure that the intended use is consistent with protection of human health and the environment. The anticipated future use of this property does not present a current or future risk to human health or the environment, subject to inclusion and compliance with the appropriate restrictions on use and disclosures as addressed above. The property, therefore, is suitable to transfer.

February 3, 2000
Date

ALBERT F. LOWAS, JR.
Director
Air Force Base Conversion Agency

Exhibits:
1. Visual Site Inspection Forms
2. Property Map
3. Air Force Standard Form 813
4. Environmental Factors Considered
5. Public Notice
6. Regulator Comments
7. Air Force Response to Regulator Comments
8. Summary of Environmental Factors by Facility

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** October 1999
Facility #: 525	**Construction Year:** 1985	**Sq. Ft.:** 1920
Inspected By: J. Decharo		
Facilities Current Function: Vacant		
Prior Facility Use: Security Police Canine Kennel		
Point of Contact: N/A		
Known Features: Underground Storage Tanks: One UST-525; Removed 1992 Aboveground Storage Tanks: One AST-525; Removed 1997 Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features: One OTH-525 (Open storage area)		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Interior Inspection: Screens out of some windows. Some stained and fallen ceiling tiles indicating roof leaks. Observed moldy carpet in one office. Mechanical room in good condition. Some debris in building.		
Comments: Adjacent lot contains hay, trusses and demolition debris. Permitted land clearing debris landfill adjacent to property. Possible AST cradles observed next to building.		

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** October 1999
Facility #: 654	**Construction Year:** 1959	**Sq. Ft.:** 2107
Inspected By: Mark Rabe/ Correen Pounds		
Facilities Current Function: Vacant		
Prior Facility Use: Liquid Fuel Pumping Station		
Point of Contact: N/A		
Known Features: Underground Storage Tanks: (two) UST 654-1, UST 654-2 (both removed) Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: (one) located in pump room, empty Other: None		
Hazardous Waste Storage Areas: HWAP: None SAP: One - See comment WPP: None Other: None		
Exterior Inspection: Good condition, suspected ACM in roof vent flashing.		
Interior Inspection: Good condition. Suspected ACM in valve gasket material. Fuel odor in pump room		
Comment: Drums observed in previous VSI have been removed.		

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** October 1999
Facility #: 5030	**Construction Year:** 1977	**Sq. Ft.:** Unknown
Inspected By: M. McDermott/C. Sahre		
Facilities Current Function: Vacant		
Prior Facility Use: Mobile Home Park (50 Spaces)		
Point of Contact: N/A		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features: Two OTH-5030-1 (Former coal storage area) OTH-5030-2 (Former service yard for coal storage area)		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: None SAP: None WPP: None Other: None		
Exterior Inspection: Insulation on some water hook-ups missing or deteriorating. Peeling and flaking paint on lamp posts. Observed miscellaneous garage (e.g., two abandoned automobile tires). Brick BBQ in poor condition.		
Interior Inspection: N/A		
Comments: No changes noted from above inspection.		

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** October 1999
Facility #: 5450	**Construction Year:**	**Sq. Ft.:** N/A
Inspected By: C. Jerrard		
Facilities Current Function: Athletic Fields, Softball /Soccer		
Prior Facility Use: Athletic Fields		
Point of Contact: M.Wojnas		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: None SAP: None WPP: None Other: N/A		
Exterior Inspection: Field in fair condition.		
Interior Inspection:		
Comments:		

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** October 1999
Facility #: 5462	**Construction Year:** 1985	**Sq. Ft.:** N/A
Inspected By: C. Jerrard		
Facilities Current Function: Vacant		
Prior Facility Use: Running Track (1 acre)		
Point of Contact: N/A		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: None SAP: None WPP: None Other: N/A		
Exterior Inspection:		
Interior Inspection:		
Comments:		

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** October 1999
Facility #: 5735	**Construction Year:** 1959	**Sq. Ft.:** N/A
Inspected By: Mark Rabe/Correen Pounds		
Facilities Current Function: Non-use status		
Prior Facility Use: Truck Liquid Fuel Fill Stand (2 outlets)		
Point of Contact: M.Wojnas		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: None SAP: None WPP: None Other: N/A		
Exterior Inspection: Good condition		
Interior Inspection: N/A		
Comments:		

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** October 1999
Facility #: 5891	**Construction Year:** 1982	**Sq. Ft.:** 476
Inspected By: M. McDermott/C. Sahre		
Facilities Current Function: Vacant		
Prior Facility Use: Outdoor Recreation Pavilion		
Point of Contact: N/A		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: None SAP: None WPP: None Other: None		
Exterior Inspection: Facility appeared to be in good condition.		
Interior Inspection: N/A		
Comments: No change		

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** October 1999
Facility #: 6085	**Construction Year:** 1983	**Sq. Ft.:** N/A
Inspected By: M. McDermott/C. Sahre		
Facilities Current Function: Vacant		
Prior Facility Use: Tennis Courts (3)		
Point of Contact:		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features:		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: None SAP: None WPP: None Other: None		
Exterior Inspection: Facility in very good condition. Grass growing through in some locations.		
Interior Inspection: N/A		
Comments:		

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** October 1999
Facility #: 6100	**Construction Year:** 1977	**Sq. Ft.:** N/A
Inspected By: C. Jerrard		
Facilities Current Function: Vacant		
Prior Facility Use: Basketball Court		
Point of Contact:		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features:		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: None SAP: None WPP: None Other: None		
Exterior Inspection:		
Interior Inspection: N/A		
Comments:		

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** October 1999
Facility #: 6244	**Construction Year:** 1965	**Sq. Ft.:** N/A
Inspected By: C. Jerrard/M. Wojnas		
Facilities Current Function: Vacant		
Prior Facility Use: Loading and Unloading Platform		
Point of Contact:		
Known Features: Underground Storage Tanks: None Aboveground Storage Tanks: None Oil/Water Separators: None Septic Tank Systems: None Drywells: None Other Features:		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: None SAP: None WPP: None Other: None		
Exterior Inspection: Platform beginning to settle. Upper surface slanting toward rear. Some concrete spalling observed on exterior. Three drum lids labeled for fire fighting foam adjacent to manhole. Drainage ditch runs through area.		
Interior Inspection: N/A		
Comments: Facility is a concrete loading dock and access ramp adjacent to the railroad tracks. Dock appears possibly unstable under heavy loads because some rear supports have settled and shifted.		

Exhibit 2

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
Parcel F9B
PROPERTY MAP

Exhibit 3

Griffiss AFB
FINDING OF SUITABILITY TO TRANSFER (FOST)
Parcel F9B
AF Form 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol RCS:

INSTRUCTIONS: *Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I - PROPONENT INFORMATION

1. TO *(Environmental Planning Function)*	2. FROM *(Proponent organization and functional address symbol)*	2a. TELEPHONE NO.
AFBCA/DA - Griffiss, Environmental	AFBCA/DA - Griffiss, Real Estate	315-330-4273

3. TITLE OF PROPOSED ACTION
Transfer Parcel F9B to the Oneida County Industrial Development Agency (OCIDA).

4. PURPOSE AND NEED FOR ACTION *(Identify decision to be made and need date)*
The OCIDA requests a transfer of Parcel F9B.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES *(DOPAA) (Provide sufficient details for evaluation of the total action.)*
Begin construction of a new high school and associated facilities

6. PROPONENT APPROVAL *(Name and Grade)*	6a. SIGNATURE	6b. DATE
ANNA L. LEMAIRE, GS-13	Anna L Lemaire	15 Jul 99

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. *(Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)*

	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*		X		
9. WATER RESOURCES *(Quality, quantity, source, etc.)*		X		
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity-distance, etc.)*		X		
11. HAZARDOUS MATERIALS/WASTE *(Use/storage/generation, solid waste, etc.)*		X		
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, flora, fauna, etc.)*		X		
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)*		X		
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*	X			
16. OTHER *(Potential impacts not addressed above.)*		X		

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17. [X] PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # A2.3.11 ; OR
[ ] PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS
These impacts are categorically excluded from further analysis based on similar land use based on CATEX #A2.3.11 which encompasses actions similar to other actions which have been determined to have an insignificant impact in a similar setting as established in the Final Environmental Impact Statement (FEIS) for Griffiss AFB, dated Nov 95. Based on this analysis, the environmental impacts of the deed are not sufficiently adverse to human health and the environment to outweigh the other advantages to the community and the public interest, or to prevent the transfer of this property.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION *(Name and Grade)*	19a. SIGNATURE	19b. DATE
MICHAEL F. MCDERMOTT, GS-13	Michael F McDermott	15 Jul 99

Deed Restriction or Notification Required?		*Environmental Factors Considered*
No	**Yes**	
		Environmental Restoration, Hazardous Substances, Petroleum
X		Hazardous Substances (Notification)
	X	Installation Restoration Program (IRP) and Areas of Concern
X		Medical/Biohazardous Wastes
X		Oil/Water Separators (OWSs)
	X	Unexploded Ordnance
X		Radioactive & Mixed Wastes
	X	Storage Tanks (USTs/ASTs)
	X	Petroleum, Oil and Lubricant Systems (POL)
		Disclosure Factors/Resources:
	X	Asbestos
	X	Groundwater Quality
X		Drinking Water Quality
X		Indoor Air Quality
X		Lead-Based Paint (Target Housing)
	X	Lead-Based Paint (Non-Residential Facilities)
X		PCBs
X		Radon
		Other Factors:
X		Air Conformity/Air Permits
X		Energy (Utilities)
X		Flood plains
X		Hazardous Waste Management (By Transferee)
X		Historic Property (Archeological/Native American, Palentological)
X		OSHA (Occupational Safety & Health Administration)
X		Outdoor Air Quality
X		Prime/Unique Farmlands:
	X	Sanitary Sewer Systems (Wastewater)
X		Sensitive Habitat
X		Septic Tanks (Wastewater)
	X	Solid Waste (Disposal of demolition materials)
X		Threatened and Endangered Species
X		Transportation
X		Wetlands

Exhibit 5

Griffiss AFB, NY
FINDING OF SUITABILITY TO TRANSFER (FOST)
Parcel F9B
Public Notice

STATE OF NEW YORK, }
COUNTY OF ONEIDA. } ss:

Ronald O'Neil

being sworn, says he is, and during the time hereinafter mentioned, was Advertising Director of the DAILY SENTINEL, a newspaper printed and published in the County of Oneida, aforesaid; and that the annexed printed Notice was inserted and published in said Newspaper once / commencing

on the 20th day of July ,199 9

to wit: July 20th

July 20th ,199 9

Ronald O'Neil

Sworn to before me this

20th day of July ,199 9

Linda Weaver
Notary Public In the State of New York
Appointed In Oneida County
My Commission Expires September 30, 1999

Linda Weaver
Notary Public

PUBLIC NOTICE

The U.S. Air Force Base Conversion Agency (AFBCA) intends to transfer approximately sixty-five (65) acres (Parcel F-9B) of the former Griffiss Air Force Base to the Oneida County Industrial Development Agency for use by the Griffiss Local Development Corporation for the development of the Griffiss Business and Technology Park. A portion of Parcel F-9B property will be used for the new Rome High School facilities. This action is being taken in accordance with recent amendments to Section 120(h) (3) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), which allow the transfer of Federal property before remedial action is completed.

The decision to transfer the property will be made after a comprehensive review of the environmental condition of the property, and consultation with the Governor of New York, the New York State Department of Environmental Conservation and the U.S. Environmental Protection Agency. The property will not be transferred until the Governor makes a determination that: (a) the property is suitable for use as a Business and Technology Park; (b) the intended use as institutional/educational is consistent with the protection of human health and the environment; (c) the U.S. Air Force has provided assurances that it will be responsible for any environmental cleanup required on the property; and (d) the public has had at least 30 days to comment on the suitability on the property for transfer.

The property became available as a result of the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), Section 2903 of Public Law #103-160, and the subsequent realignment of Griffiss Air Force Base.

The public is invited to review and comment on this proposed transaction. The U.S. Air Force will consider written comments received by the August 20, 1999. For more information, or to send written comments, please contact:

Anna L. Lemaire
Site Manager
Air Force Base Conversion Agency
153 Brooks Road, Building 301
Rome, New York 13441-4105
Telephone: (315) 330-2275
FAX: (315) 330-4062

Exhibit 6

Griffiss Air Force Base
FINDING OF SUITABILITY TO TRANSFER (FOST)
Parcel F9B
REGULATOR COMMENTS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

DEC 02 1999

Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Rome, NY 13441-4105

Re: Final Finding of Suitability to Transfer (FOST) and Supplemental Environmental Baseline Survey (SEBS)
Parcel F9-B

Dear Mr. McDermott:

EPA has reviewed the Final Finding of Suitability to Transfer ("FOST") and Supplemental Environmental Baseline Survey ("SEBS") for Parcel F9-B, dated November 3, 1999, as well as the Air Force's Response to Comments on the forementioned documents. Upon review of these documents and supporting data, the EPA has found that the documents are acceptable and the property is suitable for the intended purpose stated in the FOST.

The FOST indicates the future use of this property to be institutional/education in the central portion of the property and public/recreational in the northern portion. Our review of the environmental condition of the property indicates that the environmental factors pose no concern with this intended future use. However, should the use change from that outlined in your FOST, (specifically Area of Interest 72 and its use from institutional/educational to residential), please note additional evaluation may be necessary.

Sincerely,

Robert Wing, Chief
Federal Facilities Section

cc: M. Chen, NYSDEC
L. Hancsak, AFBCA/NE
S. DiMeo, Executive Director (GLDC)

RECEIVED
7 DEC 1999
A.M.

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

John P. Cahill
Commissioner

November 8, 1999

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Transfer of Parcel F-9B

The New York State Department of Environmental Conservation (NYSDEC) has reviewed the Finding of Suitability to Transfer (FOST) for Parcel F-9B and finds it to be acceptable.

Please contact me at (518) 457-0549 if you would like to discuss this matter

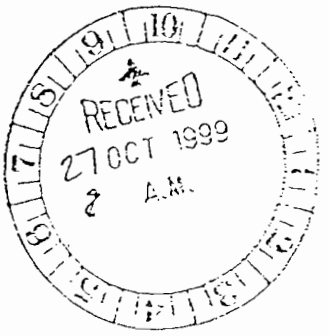
Sincerely,

Jonathan Greco
Project Manager
Division of Env. Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
L. Hancsak
S. Dimeo
M. Chen
D. Swerdowski
S. Ervolina

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

OCT 2 2 1999



Mr. Michael McDermott
BRAC Environmental Coordinator
AFBCA/DA-Griffiss
153 Brooks Road
Rome, New York 13441-4105

Re: *Draft Report For The Parcel F9 Investigation*

Dear Mr. McDermott:

This is to notify you that EPA has completed its review of the *Draft Report For the Parcel F9 Investigation*, dated September 1999, and have found that the report supports the area to be used for its intended purposes. Following are comments specific to the human health risk assessment for Parcel F9. In general, based on the proposed land-use of a school for children ranging in age from day-care through high school, and the assumption that children will have random access over the northern, central and southern sections of the property while at the school, the risks and hazards fall within EPA's risk range.

Please note, a separate analysis was conducted for a residential scenario for the property. However, this residential scenario assumed that the child and adult residences would cover the northern, central and southern exposure areas. It is probable that if the land is developed residentially that the property would be divided into smaller parcels. If this occurs, there is a potential that one of the hot spots identified in the document (i.e., 1200 ppm for lead) would be included in a residential property area where the child/adult would not be exposed to other areas where the concentrations are lower. If this type of residential development occurs, then special consideration should be given to the land-use where the hot spots were found. However, it is my understanding that based upon the future reuse plans the hot spot areas are not being used for residential purposes and therefore, pose no further concern unless that the reuse changes.

Based on the review of the document, the following are EPA's comments.

Page 5-2. *Child/Adult.* The term "composite child/adult" requires further clarification in the text. Specifically, the document should indicate that the composite child/adult is composed of 6 years as a child and 24 years as an adult.

Groundskeeper. The statement that the groundskeeper would have a lower exposure than an industrial worker does not reflect the potential for the

groundskeeper to be digging in the soil and have a higher exposure than the general industrial worker. Review of the risk/hazard results indicates that the risks are within EPA's risk range and an doubling of the ingestion rate would not significantly change the calculated risk or hazard. It is suggested that this portion of the text should be modified to reflect the potential higher ingestion rate associated with the grounds keeping activity.

Page 5-3. The guidance manuals listed in the References and this section, fail to include the Risk Assessment Guidance for Superfund, Part D, and the 1992 EPA Guidance on Calculating the 95% Upper Confidence Limit on the Mean (Publication 9285.7-081).

Page 5-5. The last sentence regarding the evaluation of non-detects is not clear. Is the meaning of this statement that when all the samples were identified as non-detects, they were eliminated from further consideration?

Page 5-6. The statement regarding the exclusion of chemicals of concern based on background should indicate that all "Group A" known human carcinogens were incorporated regardless of the background concentration. This is consistent with recommendations in RAGs-Part A, page 5-23.

It is recommended that further information concerning the TAGMs be included in the document. Specifically, what are the risk levels associated with the calculated TAGMs, what exposure pathways were evaluated, and what is the frequency of update of the document. As indicated in previous memos, the TAGMs are not typically used by EPA in it's evaluation of COPCs and this further clarification is needed to address potential risk concerns.

Page 5-7. The discussion on the top of page 5-7 is confusing. Was the hot-spot sample excluded from further analysis and the remaining chemicals combined to calculate a 95% UCL? A clearer explanation is required regarding how the hot spots were evaluated versus the chemicals found in the remainder of the site.

The discussion of the grouping of exposure areas requires further clarification regarding how this grouping reflects the potential for individuals to be exposed. Does this grouping account for the specific activities and land-uses where an individual may be exposed?

Page 5-8. The statement that grass cover would protect individuals from potential wind erosion assumes an institutional control. Since the NCP requires that the baseline assessments be developed in the absence of institutional controls or remediation this statement is inconsistent with the goals of a

baseline risk assessment.

Page 5-9. The discussion of the 95% UCL is not consistent with EPA's guidance. For example, Table 5-10 indicates that a 95% UCL was calculated in the Central Exposure Area for thallium and carbazole while EPA's guidance indicates a minimum of 10 samples are required to calculate a 95% UCL. It is recommended that for these chemicals, the maximum concentration be used in the assessment although it will not significantly change the calculated risks.

Page 5-11. The exposure frequency for the child at the school is not clear. If one assumes that a child is in school from September through June, a total of 10 months at 20 days/month the total number of days is 200 days. Subtracting a week for spring break and winter vacation would yield a total of 190 days. Most summer sessions run 6 weeks for a total of an additional 30 days. These assumptions consider that the child would not attend any weekend activities which may also increase the frequency of exposure. It is suggested that more detailed description of the assumptions used in determining the exposure frequency be included.

Page 5-12. As we discussed, I ran the calculations to evaluate the potential risks to the construction worker at the site. Based on the calculations summarized in the attached spreadsheet the risks to the construction worker are within EPA's risk range.

The dermal absorption fraction for PCBs should be 14% based on the Wester study summarized in the USEPA document "PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures" published in September 1996. The recommended dermal absorption value for cadmium is 0.001 based on studies by Wester et al. in 1992 as summarized in USEPA 1992.

Page 5-14 The description of the non-carcinogenic term is incorrect since several chemicals i.e., arsenic and PCBs, have both carcinogenic and non-carcinogenic health effects. This statement should be modified.

Page 5-15. The discussion of Group D and E carcinogens is incorrect. A group D carcinogen classification indicates that adequate information is not available to determine that the chemical is or is not a carcinogen in humans. The classification of a non-human carcinogen is based on significant testing of the chemical.

Page 5-18. At the top of the page, the text indicates that the cancer slope factor and Weight of Evidence classification can be combined to predict the potential site of cancer. This is inconsistent with EPA's 1986, 1992 and 1997

Cancer Guidelines and the text should be modified.

The statements regarding the carcinogenic effects of PCBs are inconsistent with the USEPA's document titled "PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures" where based on the weathering and environmental changes in PCBs a cancer slope factor is used for total PCBs. In addition, based on the Brunner et al. study, all of the PCBs demonstrated an increased cancer incidence in the animals tested.

Page 5-12. It is unclear that the assessment has addressed the potential that an individual maybe exposed to multiple locations i.e., the Northern, Central or Southern area. Based on combining the risks from these areas it appears that the risks and hazards will not exceed EPA's risk range but it would be helpful to discuss this in the risk characterization section.

Page 5-26. The conclusion that the risks are likely overestimates is not fully descriptive of the information used in this assessment. As discussed on page 5-29, since there are a number of chemicals lacking toxicity information it is possible that the risks are underestimates based on the lack of data for these chemicals. It is suggested that the statement be modified to reflect the wide array of data.

Page 5-27. The exposure duration for the adult resident is 24 years as an adult and 6 years as a child, not 30 years as an adult as suggested in the sentence.

Table F-3-1b. The Reference Concentration for chlordane is 7 x 10E-4 which is equivalent to an inhalation Reference Dose of 2.3 E-05. This does not change the risk calculations significantly, but it mentioned for consistency with EPA's approach.

Should you have any questions, please feel free to contact me.

Sincerely,



Douglas M. Pocze
Project Manager

cc: J. Greco, NYSDEC

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

95-7090
17-A-91
AOI
Cathy

John P. Cahill
Commissioner

October 8, 1999

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Transfer of Parcel F-9B

The New York State Department of Environmental Conservation (NYSDEC), in conjunction with the New York State Department of Health (NYSDOH), has reviewed the Parcel F-9 Investigation Report and finds it to be acceptable.

Based upon the conclusions presented in the attached letter from Ms. Henriette Hamel, of the NYSDOH, I believe the current Finding of Suitability for Early Transfer (FOSET) for this parcel should be withdrawn, and a Finding of Suitability to Transfer (FOST) should be submitted in its place.

Please contact me at (518) 457-0549 if you would like to discuss this matter

Sincerely,
Jonathan Greco

Jonathan Greco
Project Manager
Division of Env. Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
L. Hancsak
S. Dimeo
M. Chen
D. Swerdowski
S. Ervolina



STATE OF NEW YORK
DEPARTMENT OF HEALTH
Central Field Office 217 South Salina Street Syracuse, New York 13202

Antonia C. Novello, M.D., M.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

October 7th, 1999

Mr. Jonathan Greco
NYS Dept. of Environmental Conservation
Division of Environmental Remediation
Federal Facilities
50 Wolf Road
Albany, NY 12233

Re: Draft Report for the Parcel F-9 Investigation
AOI 53 AOI 68 AOI 69/448
AOI 70 AOI 71 AOI 169
Railroad Track
Griffiss Air Force Base, 633006
Rome, Oneida County

Dear Mr. Greco,

I have reviewed the draft F-9 investigation report and the included risk assessment. I agree with the conclusions of NFS, or "no further study required" for the areas of interest (AOIs). Although there are several isolated points of elevated PAHs and metals at the AOIs investigated, on the whole, there appears to be no excessive risk under the intended use scenarios for these AOIs. The risk assessment supports transfer of key portions of the property to the Rome City School District and the proposed plans for the high school grounds, athletic fields and parking lots.

If you have any questions, or require anything further, please call me at 315-426-7627.

Sincerely,

Henriette M. Hamel

Henriette M. Hamel
Regional Toxics Coordinator

Cc: A. Carlson/M. Rivara
D. Miles
C. Kramer, Oneida Co Health Dept.
A. Block
G. Ullirsch
M. Chen, NYSDEC

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action, Room 242
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-4349 FAX: (518) 457-4198

John P. Cahill
Commissioner

July 30, 1999

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

RE: Finding of Suitability for Early Transfer; Parcel F-9B

I have reviewed the referenced document and offer the following comments:

1. There are three separate Petroleum, Oil and Lubricant (POL) System-related facilities on the F9-B parcel (i.e., POL-654, POL-5685-1 and POL-5735). All three are claimed to have been "closed in place", yet one (POL-654) still has an open spill number and two (i.e., POL-654 and POL-5735) are said to be associated with IRP Site ST-04 (the Bulk Fuel Storage Area).

   A. Does the term "closed in place" indicate regulatory approval was obtained?

   B. My understanding of the Bulk Fuel Storage Area site is that it entails only the 275-gallon UST (as stated in Section 5.2), however, Exhibit 1 (facility 654 and facility 5735) seem to indicate that the entire distribution system is part of the IRP site. Please clarify

2. General: As with the F-1 FOSET, it is our understanding that petroleum issues are not affected by the FOSET (i.e., the Air Force is still the party responsible for all open spills, tank closures and pre-transfer petroleum releases). If this cannot be stated in the Covenant Deferral Request (CDR), then please include a statement similar to the Air Force's letter dated September 28, 1998, as an attachment to the Final F-9B FOSET document.

As the Air Force has agreed to restrict access (save for routine grounds keeping) to the F-9B parcel until such time that the BCT agrees the assessment of the parcel is complete, and that the parcel is suitable for its intended use, I have no further comments on this transfer. Please address the above and submit a draft final version which can be routed to my supervisors for their approval, and subsequently to the Governor's office for review and sign off, as appropriate.

Please note that the NYSDEC comments are limited to the information in your FOSET, since the NYSDEC does not have the capacity for collecting independent information or data.

Please contact me at (518) 457-0549 if you would like to discuss this matter.

Sincerely,

Jonathan Greco

Jonathan Greco
Project Manager

CC: S. Ervolina
M. Chen/File
D. Swerdowski (Reg. 6, Watertown)
H. Hamel (NYSDOH, Syracuse)
C. Dowd (Fish & Wildlife)
R. Wing/D. Pocze (EPA)
S. Dimeo
F. Murphy (Superintendent, Rome City Schools)

BC: M. O'Toole
T. Quinn
A. Quartarraro

Exhibit 7

Griffiss AFB, NY
FINDING OF SUITABILITY TO TRANSFER (FOST)
Parcel F9B

AFBCA RESPONSE TO REGULATORY COMMENTS

1. **The USEPA Region 2** had no comments in response to the July 15, 1999 draft of the subject FOSET.

2. **The NYSDEC** submitted comments in response to the July 15, 1999 draft of the subject FOSET. Their comments are addressed as follows:

a. Comment number 1A: AFBCA Response: - Regulatory concurrence was not obtained or required for the closure of the POL systems. The regulatory authority (NYSDEC, Region 6) has been apprised of the current status of the POLs.

b. Comment number 1B: AFBCA Response: The legend on Exhibit 1 indicates a symbol for IRP sites. The small rectangle around the ST-04 label indicates the location of the site in accordance with the legend.

c. Comment number 2: AFBCA Response: The Air Force's September 28, 1998 letter is attached to this exhibit. As stated in the letter, the covenant deferral option for conveyance does not affect, or modify any obligation of the Air Force under any statute of regulation other than CERCLA.

3. **The USEPA Region 2** submitted a concurrence letter on conversion of the FOSET to a FOST in response to the September 22, 1999 draft of the subject FOSET and the September 3, 1999 Parcel F9 Investigation Draft Report. A restriction was added to a portion of AOI 72 based on the USEPA comments. The remainder of the USEPA comments (primarily concerning the risk assessment) will be responded to as response to comments on the Parcel F9 Investigation Draft Report and do not change the content of this FOST.

4. **The NYSDEC and NYSDOH** submitted concurrence letters on conversion of the FOSET to a FOST in response to the September 22, 1999 draft of the subject FOSET and the September 3, 1999 Parcel F9 Investigation Draft Report. No comment response is required.

Exhibit 8

Griffiss AFB, NY
FINDING OF SUITABILITY TO TRANSFER (FOST)
Parcel F9B
SUMMARY OF ENVIRONMENTAL FACTORS BY FACILITY

PARCEL F-9B ENVIRONMENTAL FACTORS									
Facility #	**Facility Description**	**STW/STM**	**IRP/AOI**	**OWS**	**UST/AST**	**OPEN SPILL #s**	**POSSIBLE ACM**	**POSSIBLE LBP**	**OTHER**
525	Security Police Canine Kennel		AOI-72		UST-525; AST-525				OTH-525
654	Liquid Fuel Pumping Station		IRP Site ST-04		UST-654-1; UST-654-2	9810949; 9104707	X	X	POL-654
5030	Trailer Park (50 Spaces)		AOI-70 AOI-71						OTH-5030-1; OTH-5030-2
5450	Athletic Field (Softball/Soccer)		AOI-69/448						OTH-440
5462	Running Track (1 Acre)		AOI-69/448						OTH-440
5735	Truck Liquid Fuel Fill Stand (2 outlets)		IRP Site ST-04						POL-5735
5891	Outdoor Recreation Pavilion		AOI-169						
6085	Tennis Courts (3 courts)								
6100	Basketball Court (2 courts)								
6244	Loading and Unloading Platform								

ENVIRONMENTAL FACTORS ASSOCIATED WITH FORMER BUILDINGS ON PARCEL F9B									
Facility #	**Facility Description**	STW/STM	IRP/AOI	OWS	UST/AST/POL	OPEN SPILL #s	POSSIBLE ACM	POSSIBLE LBP	OTHER
540	Supply/Equipment Warehouse				UST-0540				
5685	Pipeline BFSA to SAC Hill (underground)				POL-5685-1				
	Former Hospital Steam Plant Coal Storage Pile		AOI-53						OTH-511
	Open Storage Area		AOI-68						OTH-513

JG

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

31 JAN 2000

MEMORANDUM FOR Mr. Douglas Pocze
USEPA Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

Mr. Sal Ervolina, Director/
Mr. Jonathan Greco, Project Manager
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010

FROM: AFBCA/DA - Griffiss
Environmental Section
153 Brooks Road
Rome NY 13441-4105

SUBJECT: Lease Application - Building 782

1. Reference our January 3, 2000 memorandum concerning review of the draft Finding of Suitability to Lease (FOSL) document for subject lease application. Review comments from the United States Environmental Protection Agency (USEPA) and the New York State Department of Environmental Conservation (NYSDEC) were received by this office and have been incorporated into the FOSL.

2. We are providing the attached revised final draft FOSL document for your final review. Please provide your concurrence within three working days so that we may expedite the processing of this lease.

3. If you have any questions on the revised draft final FOSL, please contact Michael Wojnas at (315) 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment:
Revised Draft Final FOSL - Bldg 782

cc: Ms. Lynn Hancsak, AFBCA/DA - EV

RECEIVED

AFBCA/DA - GRIFFISS

FINDING OF SUITABILITY TO LEASE

BUILDING 782

January 2000

FINDING OF SUITABILITY TO LEASE (FOSL)
BUILDING 782
GRIFFISS AIR FORCE BASE (AFB), NEW YORK

1. PURPOSE

1.1 The purpose of this Finding of Suitability to Lease (FOSL) is to document environmentally-related findings and the suitability to Lease property at Griffiss AFB, New York, to the Griffiss Local Development Corporation (GLDC). The property is described in Section 2 below. The property will be leased to the GLDC on an interim basis for the term of one year, with four additional options to renew with a term of one year each. The GLDC will sublease the property to a private business for use as a manufacturing facility for professional modular buildings.

1.2 This FOSL is a result of an analysis of information contained in the following documents: (1) Final Environmental Impact Statement (FEIS) for the Disposal and Reuse of Griffiss Air Force Base, New York, November 1995; (2) Final Supplemental Environmental Impact Statement (FSEIS) for the Disposal and Reuse of Airfield at Griffiss Air Force Base, New York, September 1999; (3) Basewide Environmental Baseline Survey (EBS) for Griffiss Air Force Base, New York, September 1994; (4) Basewide Environmental Baseline Survey Update, March 1997; (5) Draft Final Remedial Investigations (RI) Report dated December 1996; (6) Griffiss Area of Interest (AOI) Reports dated November 1996 (Group 1), May 1997 (Group 2 and 3) and July 1998 (Expanded Site Investigation); (7) Unexploded Ordnance (UXO) Archives Search Report - Recommendations and Findings, dated November 1997; (8) Final BRAC Removal Actions (UXO) Report, dated October 30, 1998; (9) 1993 Inventory of Rare Plant Species and Significant Natural Communities at Griffiss AFB, dated January 25, 1994; (10) Phase II Archaeological Investigations of 20 Sites at Griffiss AFB, dated April 1997; and (11) a Visual Site Inspection (VSI) conducted in December 1999. A VSI form describing information gathered during the VSI is included as Attachment 1 to this document.

2. PROPERTY DESCRIPTION

The property to be leased is shown on the map (Attachment 2) and consists of a total of approximately 9.57 acres. The property includes Building 782 (28,251 SF), the concrete paved area to the southeast and the grassed area located to the northwest of the nosedocks.

3. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE

The environmental impacts of this proposal have been adequately analyzed and disclosed in compliance with NEPA. These impacts are analyzed in the FEIS for the Disposal and Reuse of Griffiss Air Force Base and the FSEIS for the Disposal and Reuse of Airfield at Griffiss Air Force Base, New York and are Categorically Excluded from further analysis as described in CATEX #A2.3.11 and documented on the attached Unites States Air Force (USAF) Form 813 (Attachment 3). Based on this analysis, the environmental impacts of proceeding with the Lease are not sufficiently adverse to human health and the environment to out-weigh the other

advantages to the community and the public interest of this Lease and to prevent the leasing of the property.

4. ENVIRONMENTAL CONDITION OF THE PROPERTY

Based on a review of the Basewide EBS and a VSI of the property, Building 782 and surrounding pavements are considered Department of Defense (DoD) Environmental Condition Category 7. Category 7 areas are areas that are not evaluated or require additional evaluation.

The United States Environmental Protection Agency (USEPA) has concurred that further investigations are required.

5. LEASE RESTRICTIONS AND NOTIFICATIONS

The environmental documents listed in Section 1.2 were evaluated to identify environmental factors which require specific restrictions under the Lease, to preclude threat to human health or the environment, or require notifications to the Lessee. The factors that require either Lease restrictions or notifications are identified in Attachment 4 and are discussed below. The remaining factors listed in Attachment 4 pose no threat to human health or the environment and, therefore, require neither lease restrictions nor notifications to the lessee.

5.1 Hazardous Substances Notification

Past activities on the property included the storage of hazardous substances and wastes at the satellite accumulation point (STW-782) located inside Building 782, as part of aircraft maintenance activities. The site has been sampled, remediated, and resampled to confirm closure of this site. This work was performed under project JREZ 95-0036, Assess/Close Hazardous Waste/Material Storage Areas. The New York State Department of Environmental Conservation (NYSDEC) on August 11, 1999 approved final closure of the site.

A list of hazardous substances known to be stored on the property for a period of one (1) year or more is provided in Attachment 5, Notice of Hazardous Substances Stored and a listing of hazardous wastes known to be stored at the accumulation point is provided in Attachment 6, Notice of Hazardous Waste Stored. A hazardous substance/waste notice will be given in lease documents of the type and quantity of hazardous substances/waste and the time at which storage for one (1) year or more took place.

The Lessee will be advised through Lease documents of the location of the satellite storage area. The USAF will not allow the Lessee to operate the former hazardous waste accumulation point. The USAF will allow the Lessee to operate new hazardous waste accumulation points that comply with Federal, State and local environmental regulations on a case-by-case basis, subject to written approval from the USAF and NYSDEC. The Lessee will be responsible for obtaining any required permits for operating such accumulation points.

5.2 Installation Restoration Program (IRP) Sites, Areas of Concern (AOCs) Sites and Areas of Interest (AOIs) Sites

The USAF, USEPA, and NYSDEC entered into a Federal Facility Agreement (FFA) effective August 21, 1990, under Section 120 of CERCLA.

5.2.1 Subject Property

There are three (3) AOC sites located within the subject property.

AOC/IRP Site ID	Site Name
SD-41	Bldg 782, Nose Docks 1 & 2
SS-46	Glycol Use/Storage Areas
SD-52	On Base Groundwater

SD-41, Building 782 (Nose Docks 1 & 2) is an AOC that is located adjacent to Buildings 782 and 783, between Aprons 1 and 2. The site consists of two areas of contaminated soil, one area associated with releases from an oil/water separator (OWS) located near the northeastern corner of Building 782, and the second area associated with a soil fire that occurred during trenching operations between the Nose Docks and Apron 1. Stained soil has been excavated to a depth of 2 feet; however, contamination below this level is known to exist. The Draft Final RI report issued in December 1996 recommended removal of the OWS and contaminated soils, investigation of the source of contamination in the vicinity of the trench fire along the southern edge of Apron 1, and the evaluation of remedial alternatives for the remediation of contaminated soils and groundwater in the area. The RI report also recommended delineation of petroleum hydrocarbon contamination in the groundwater at the site. Additional investigations are presently being performed under project JREZ97-6003, Remedial Action for Former Underground Storage Tanks (USTs) sites.

SS-46, Glycol Use and Storage Area, is an AOC that was recommended for no further action in the Draft Final RI report dated December 1996. This AOC is primarily associated with glycol spills in the vicinity of Apron 2. Regulator concurrence has not been obtained.

At **SD-52, On Base Groundwater Contamination**, the groundwater on the property was investigated and analytical results are presented in the Draft Final RI report dated December 1996. Releases to the groundwater of petroleum hydrocarbons have occurred at the property, associated with site SD-41.

All AOIs on the subject property have been classified as Covered Under Other Programs or No Further Study.

The USAF has evaluated the risks associated with these sites and has determined that this property can be used pursuant to the proposed lease, with the specified use restrictions identified

below, with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

The Lessee will be advised through the Lease documents of the locations of past, possible, and future remedial actions/investigations. The Lessee will be required under the Lease to comply with the provisions of any health and safety plans in effect under the IRP. The health and safety plans will incorporate Occupational Safety and Health Administration (OSHA) requirements. The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity on the property without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF and regulatory agencies unrestricted access to the property to conduct necessary investigation and/or cleanup activities.

5.2.2 Adjacent IRP Sites and AOCs

There are three (3) AOCs or IRP sites located on adjacent property that may impact the property.

AOC/IRP Site ID	Site Name
SD-32	Six Mile Creek and WSA Lagoon
SS-34	Building 786 (Nose Dock #5) - Soil Contamination
ST-37	Building 771, Pumphouse 5

SD-32, Six Mile Creek and WSA Lagoon, is an AOC located north of the property. The Air Force recommended in its Draft Final RI report dated December 1996 that a feasibility study be performed to evaluate potential remedial actions required to mitigate chemicals of concern in the surface water and sediments. The draft Feasibility Study (FS) was issued in January 1999. USEPA comments on the draft FS were received on April 8, 1999 and comments were received from the NYSDEC on April 9, 1999.

SS-34, Building 786 (Nose Dock #5) - Soil Contamination, is an AOC. Liquids used in the area included oil, solvents, and fuels. An aboveground storage tank (AST) for storage of liquid wastes was formerly located on the east side of Building 786. In 1990, the AST and the surrounding contaminated soil were removed and the tank was replaced with three underground storage tanks (USTs). The draft final RI report was issued in December 1996. Contaminated surface soil will be removed in 2000 in the area of the former AST and additional investigation of the contaminated subsurface soils and groundwater will be performed under project number JREZ97-6042B, Close Spill Sites.

ST-37, Building 771, Pumphouse 5, is a Source Removal Site. Construction of an Industrial Access Road has occurred adjacent to the Pumphouse 5 site. A source removal action has been completed at Pumphouse 5. Residual contamination in the soil and groundwater is being addressed under funded project JREZ96-0021, Close Pumphouse 5.

The USAF has evaluated the risks associated with these sites and has determined that this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

The Lessee will be advised through the Lease documents of the locations of past, possible, and future remedial actions/investigations. The Lessee will be required under the Lease to comply with the provisions of any health and safety plans in effect under the IRP. The health and safety plans will incorporate Occupational Safety and Health Administration (OSHA) requirements. The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity on the property without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF and regulatory agencies unrestricted access to the property to conduct necessary investigation and/or cleanup activities.

5.3 Petroleum Storage and Distribution Facilities

5.3.1 Underground and Aboveground Storage Tanks (USTs and ASTs)

There are two (2) UST sites and one (1) former UST site on the property. Table 5.3.1 lists the storage tank numbers, location and status of the tanks.

Table 5.3.1
Storage Tanks

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-5730-1 Waste Oil	2,000	Northwest of B/782 Associated with OWS-5730-1 (SD-41)	9413416 Open	Removed 1994 920077	1994
UST-5730-2 Waste Oil	2,000	Northwest of B/782 Associated with OWS-5730-2 (SD-41)	9413416 Open	Closed in Place Invest 960020	1997
UST-8005 JP4/8, Type III Fuel System	4,000	East of B/782	None	Temporarily Closed	1999

* All tanks listed as closed on the above table have been removed from the Griffiss AFB Major Oil Storage Facility license.

The USAF has evaluated the risks associated with these sites and has determined that since the remaining petroleum contamination is subsurface, this property can be used pursuant to the

proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental compliance restoration process.

The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the UST sites listed above without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF, NYSDEC and their representatives unrestricted access to the sites to conduct investigations, cleanup or removal activities.

5.3.2 Petroleum, Oil and Lubricant Systems (POL)

There are three (3) abandoned in place and closed underground fuel lines sites on the property. Table 5.3.2 lists the POL numbers, location and status of the systems.

Table 5.3.2
Hydrant Fueling and Pipeline Systems

POL Number	Location	Releases/ Spill Number /Status	POL Status/Removal Project Number	POL Closure Date
POL-772-2	Type III System, refuel/defuel loop east & west sides of Apron 2	9713631 associated with Apron 2 - Open	Deactivated 1995. Cleaned & sampled under 95-7050	1995
POL-773-2	Runs north and south just east of Apron 1 and supplied the refueling pits for Easy Row, Apron 1	9707954 associated with Apron 1 - Open	Deactivated 1993. Cleaned & sampled under 95-0038 Further investigations under 97-6003	1996
POL-781-2	Runs north and south just east of Apron 2 and supplied the refueling pits for Baker Row, Apron 2	9608239 closed 10/2/96 9713631 associated with Apron 2 - Open	Deactivated 1993. Cleaned & sampled under 95-0038 Further investigations under 97-6003	1996

The USAF has evaluated the risks associated with these sites and has determined that since the remaining petroleum contamination is subsurface, this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental compliance restoration process.

The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the POL sites listed above without prior written USAF approval and USAF coordination with applicable federal and state

regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF, NYSDEC and their representatives unrestricted access to the sites to conduct investigations, cleanup or removal activities.

5.3.3 Oil/Water Separators (OWSs)

There is one (1) OWS site and one (1) former OWS site located on the property. Table 5.3.3 lists the OWS numbers, location and status of the OWSs.

Table 5.3.3
Oil/Water Separators

OWS Number	Location	Releases/ Spill Number /Status	OWS Status	OWS Closure Date
OWS-5730-1	Northwest of B/782	9413416 Open	Removed 1995 under 92-0077 Further investigations under 96-0020	IRP Site SD-41
OWS-5730-2	Northwest of B/782 Replaced OWS-5730-1 Same location	9413416 Open	Closed in Place Further investigations under 96-0020	IRP Site SD-41

The USAF has evaluated the risks associated with these sites and has determined that since the remaining petroleum contamination is subsurface, this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental compliance restoration process.

The Lessee will be restricted from utilizing OWS-5730-2 for storm water management and from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the OWS site listed above without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF, NYSDEC, and their representatives unrestricted access to the site to conduct investigations, cleanup or removal activities.

5.4 Asbestos Containing Material (ACM)

ACM was identified in Building 782. The asbestos observed during the VSI generally appeared in good condition with the exception of minor damage to a few pipe insulation elbows and runs (fiberglass) as noted in the VSI report (Attachment 1). An asbestos abatement project was performed in June 1999 consisting of the repair of 6 LF of pipe insulation. The Lessee will be advised through lease documents of the presence, location, and condition of the ACM. The Lease will require the Lessee to monitor the condition of the existing ACM and comply with all applicable laws and regulations relating to asbestos. The Lease will require the Lessee to

remove or remediate any ACM that during the period of the lease becomes damaged or deteriorated. The Lease will also require the Lessee to submit an appropriate asbestos disposal plan to the Air Force for approval prior to conducting any remediation activities.

5.5 Lead-Based Paint (LBP)

LBP may be present in Building 782. The condition of possible LBP is noted in the VSI report for the building (Attachment 1). The Air Force has classified this facility as a facility with a probability of having a LBP hazard because it was constructed prior to 1978 when the maximum allowable content of lead in paint was reduced. The Lessee will restrict construction, alteration, or modification (to include paint stripping or sanding) without prior testing of the paint and notification of and approval by the USAF prior to the initiation of the activity. The Lessee will be responsible through the Lease for ensuring that any LBP is maintained in good condition and for managing all LBP and potential LBP in compliance with all applicable laws and regulations.

5.6 Sanitary Sewer Systems (Wastewater)

Building 782 is connected to a sanitary sewer. The Lease will require the Lessee to submit appropriate applications for discharging of any generated sanitary waste to the sanitary sewer system prior to the beginning of the Lease and to meet all applicable wastewater discharge permit standards.

5.7 Hazardous Waste Management (by Lessee)

The Lessee is anticipated to operate 90-day satellite accumulation points to manage hazardous waste on the property to be leased for the production of professional modular buildings.

The Lessee will be required through the Lease to comply with all applicable laws and regulations pertaining to the use, treatment, storage, disposal, and transportation of hazardous materials/wastes. The Lessee will be required to have an approved plan for responding to hazardous waste, fuel, or other chemical spills prior to commencement of operations on the leased property. Furthermore, the Lessee will be required to construct and operate any necessary hazardous material/waste storage facilities and obtain all required permits.

5.8 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property to be leased has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven munitions related sites are identified to be present within the property to be leased. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property to be leased.

All ground disturbing activities performed by the lessee shall be performed in a manner such that the identification of ordnance related material might occur. Upon discovery of any suspected ordnance related material the appropriate authorities shall be notified.

5.9 Historic Property

The draft Historic Structures Survey dated October 1995 was issued for review and revised on July 14, 1998. Comments on the revised draft were received from the NY State Office of Parks, Recreation and Historic Preservation on September 9, 1998. Based on the comments received, Building 782 has been released from consideration.

5.10 Regulatory Compliance/Permits/Reports (by Lessee)

In addition to the environmental requirements stated above, the Lessee will be required through the Lease to comply with all other applicable laws and regulations and to obtain all environmental permits and approvals that are applicable to the operations conducted at the property. The Lessee will also be required through the Lease to provide the following documentation to the Air Force:

a. Copy of the Notification Letter to the NYSDEC Regulatory Affairs, Region 6 Office advising of operation start-up.
b. Copy of the NYSDEC Regulatory Affairs response.
c. Copy of all permit applications followed by the final permits.

6. REGULATOR COORDINATION

Consolidated draft documents were provided on January 3, 2000 for formal review and comment. Regulator comments (Attachment 7) were received from the USEPA on January 24, 2000 (draft copy received by E-Mail) and from the NYSDEC on January 5, 2000 and were incorporated or addressed in the document. A draft final FOSL was provided for final coordination on January 31, 2000. The regulators concurred that their comments have been accurately addressed.

7. UNRESOLVED REGULATOR COMMENTS

All comments provided by the regulators were addressed and/or incorporated in this document. There were no unresolved comments.

8. FINDING OF SUITABILITY TO LEASE

Based on the foregoing information and analysis, I find that this property is suitable to Lease and that environmental conditions do not present an unacceptable risk to human health or the environment, subject to the lease containing appropriate restrictions on the activities of future recipients as addressed above.

Date

ALBERT F. LOWAS, JR.
Director
Air Force Base Conversion Agency

Attachments:

1. Visual Site Inspection Form
2. Property Map
3. Air Force Standard Form 813
4. Environmental Factors Considered
5. Notice of Hazardous Substances Stored
6. Notice of Hazardous Waste Stored
7. Regulator Comments
8. Air Force Response to Comments

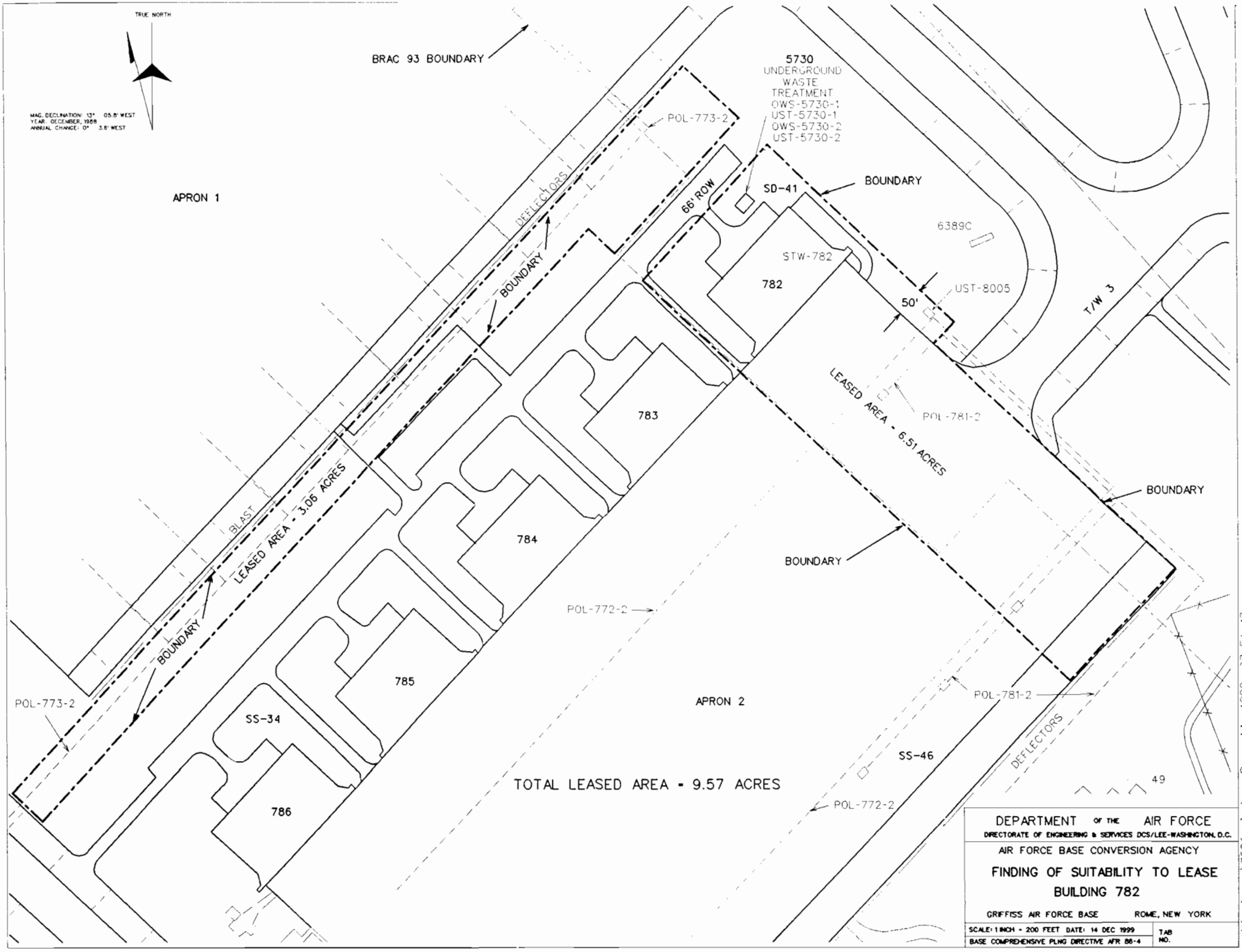
Attachment 1

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 782
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** December 1999
Facility #: Building 782	**Construction Year:** 1959	**Sq. Ft.:** 28,251
Inspected By: John Decharo/Michael Wojnas, AFBCA/DA - GRIFFISS		
Facilities Current Function: Vacant		
Prior Facility Use: Fuel Systems Maintenance Dock		
Point of Contact: AFBCA/DA - GRIFFISS		
Known Features: Underground Storage Tanks: UST-5730-1 (removed), UST-5730-2 (closed in place) UST-8005 (temporarily closed) Aboveground Storage Tanks: None Oil/Water Separators: OWS-5730-1 (removed), OWS-5730-2 (closed in place) Septic Tank Systems: None Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: No SAP: STW-782 WPP: No Other: None		
Exterior Inspection: Conex box located north of building is empty. Debris located behind blast deflectors east side of Apron 2. Broken grate covers center drains for Apron 2.		
Interior Inspection: Pipe & equipment insulation in good condition. Minor fraying of fiberglass pipe insulation. Main side areas – peeling floor paint. Peeling paint north wall of office located off the north side area.		
Comments: None		

Attachment 2

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 782
PROPERTY MAP



DEPARTMENT OF THE AIR FORCE
DIRECTORATE OF ENGINEERING & SERVICES DCS/LEE-WASHINGTON, D.C.

AIR FORCE BASE CONVERSION AGENCY

FINDING OF SUITABILITY TO LEASE
BUILDING 782

GRIFFISS AIR FORCE BASE ROME, NEW YORK

SCALE: 1 INCH = 200 FEET DATE: 14 DEC 1999

BASE COMPREHENSIVE PLNG DIRECTIVE AFR 86-4

TAB NO.

C:\fos1maps\782fos1.dgn Dec. 14, 1999 07:51:47

Attachment 3

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 782
AF FORM 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol
RCS:

INSTRUCTIONS: *Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I - PROPONENT INFORMATION

1. TO *(Environmental Planning Function)*	2. FROM *(Proponent organization and functional address symbol)*	2a. TELEPHONE NO.
AFBCA/DA-Griffiss Environmental	AFBCA/DA-Griffiss Real Estate	315-330-4273

3. TITLE OF PROPOSED ACTION
Lease Building 782 (Nosedock 1) to the Griffiss Local Development Company (GLDC).

4. PURPOSE AND NEED FOR ACTION *(Identify decision to be made and need date)*
The GLDC requests a lease for Building 782 for sublease to a private contractor.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES *(DOPAA) (Provide sufficient details for evaluation of the total action.)*
To be used as a professional modular building manufacturing facility.

6. PROPONENT APPROVAL *(Name and Grade)*	6a. SIGNATURE	6b. DATE
Anna L. Lemaire, GS-13	Anna L Lemaire	31 Jan 00

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. *(Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U= unknown effect)*	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*		X		
9. WATER RESOURCES *(Quality, quantity, source, etc.)*		X		
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity-distance, etc.)*		X		
11. HAZARDOUS MATERIALS/WASTE *(Use/storage/generation, solid waste, etc.)*		X		
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, flora, fauna, etc.)*		X		
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)*		X		
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*	X			
16. OTHER *(Potential impacts not addressed above.)*		X		

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17. [X] PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # A2.3.11 ; OR
[ ] PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS
These impacts are categorically excluded from further analysis based on CATEX #A2.3.11 which encompasses the granting of leases to use USAF-controlled property for actions similar to other actions which have been determined to have an insignificant impact in a similar setting as established in the Final Environmental Impact Statement (FEIS) for Griffiss AFB, dated Nov 95 and the Final Environmental Impact Statement dated Sept 99. Based on this analysis, the environmental impacts of the lease proceedings are not sufficiently adverse to human health and the environment to outweigh the other advantages to the community and the public interest of this deed or to prevent the lease of the property.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION *(Name and Grade)*	19a. SIGNATURE	19b. DATE
Michael F. McDermott, GS-13	Michael F. McDermott	1/31/00

Lease Restriction/ Disclosure or Notification Required?		***Environmental Factors Considered***
No	**Yes**	
		Environmental Restoration, Hazardous Substances, Petroleum
	X	Hazardous Substances (Notification)
	X	Installation Restoration Program (IRP) and Areas of Concern
X		Medical/Biohazardous Wastes
	X	Oil/Water Separators (OWSs)
	X	Unexploded Ordnance
X		Radioactive & Mixed Wastes
	X	Storage Tanks (UST/AST)
		Disclosure Factors/Resources:
	X	Asbestos
	X	Groundwater Quality
X		Drinking Water Quality
X		Indoor Air Quality
X		Lead-Based Paint (High-Priority Facilities)
	X	Lead-Based Paint (Other Facilities)
X		PCBs
X		Radon
		Other Factors:
X		Air Conformity/Air Permits
X		Energy (Utilities)
X		Flood plains
	X	Hazardous Waste Management (By Lessee)
X		Historic Property (Archeological/Native American, Palentological)
X		OSHA (Occupational Safety & Health Administration)
X		Outdoor Air Quality
X		Prime/Unique Farmlands:
	X	Sanitary Sewer Systems (Wastewater)
X		Sensitive Habitat
X		Septic Tanks (Wastewater)
X		Solid Waste (Disposal of demolition materials)
X		Threatened and Endangered Species
X		Transportation
X		Wetlands

Attachment 5

Griffiss AFB
FINDING OF SUITABILITY TO LEASE
Building 782
NOTICE OF HAZARDOUS SUBSTANCES STORED

Notice is hereby provided that the information set out below from the Basewide EBS and its supplement provide notice of hazardous substances and their respective quantities that are known to have been stored for one (1) year or more within Building 782, Griffiss Air Force Base, and the dates that the storage took place.

Building Number	Substance Stored	Regulatory Synonym(s)	CAS Registry Number	Dates Stored	Quantity (kg/year)
782	Sealant (toluene)	Benzene, methyl-	108-88-3	1984-86 1990-91	544
	Sealing Compound (dimethylformamide)	N,N-dimethylformamide	66-12-2	1984-86	544
	Sealing Compound (methyl ethyl ketone)	2-Butanone	78-93-2	1984-86	544

Attachment 6

Griffiss AFB
FINDING OF SUITABILITY TO LEASE
Building 782
NOTICE OF HAZARDOUS WASTE STORED

Notice is hereby provided that the information set out below from the Basewide EBS and its supplement provide notice of hazardous wastes and their respective quantities that are known to have been stored (90 day maximum) within Building 782, Griffiss Air Force Base, and the dates that the storage took place.

Building Number	Waste Stored	Regulatory Waste Number	Year	Quantity (lbs.)
782	Spill Resistant, JP-4, and Absorbent	D001	1988-92	2,435
	JP4 Absorbent & JP4/Water	D001/D018	1993	1,320

Attachment 7

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 782
REGULATOR COMMENTS

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Re: Review of the Draft Finding of Suitability to Lease (FOSL) and Supplemental EBS for Building 782

Dear Mr. McDermott:

EPA has reviewed the draft Finding of Suitability to Lease (FOSL) and the Supplemental Environmental Baseline Survey (SEBS) for Building 782, dated January 3, 2000. Upon review of the documents and supporting information, the following are my comments.

General Comments

1) Please identify the restricted areas (e.g., no digging drilling or other ground disturbing activities) on the Attachment 2 figure.

Specific Comments

2) Page 4, On-Base Groundwater Contamination. Please revise wording as follows: the groundwater on the property was investigated and analytical results are presented in the Draft Final RI report dated December 1996. Releases to the groundwater of petroleum hydrocarbons have occurred at the property, associated with site SD-41.

3) Page 5, Section 5.2.2, Table. Why are Sixmile Creek and WSA Lagoon grouped together as on AOC/IRP Site? To my knowledge this sites are not the same. Please clarify and revise.

4) Page 5, SS-34, Building 786. Please revise wording as follows: Liquids used in the area included oil, solvents and fuels. An aboveground ... replaced with three underground storage tanks (USTs) . The draft final Remedial Investigation (RI) was issued in December 1996. Contaminated surface soil will be removed in 2000 in the area of the former AST and additional investigation of the contaminated subsurface soils and groundwater will be performed under project number JREZ97-6042B.

5) Page 9, Section 5.8, 3rd paragraph. Reference is made to the procedures the lessee is to follow regarding ground

disturbing activities. However, all digging, drilling or other ground disturbing activities are prohibited. This paragraph should be clarified.

6) Attachment 1, Visual Site Inspection. Reference is made that paint is peeling within the interior and therefore, the assumption can be made that the Lessee will take some kind of action (e.g., sand and paint the area). Because Section 5.5 identifies that Lead Base Paint is probably present and that the Lessee is responsible for testing, managing and maintaining the paint/LBP, the AF should ensure that the Lessee has some LBP management plan prior to the lease.

7) Attachment 3, AF Form 813. Reference is made to an ▒ adverse effect▒ regarding the air quality. However, no mention was made within the FOSL regarding air emissions or permits. Please include a reference that the Lessee shall be responsible for obtaining and complying with all air emission permits and standards.▒

Should you have any questions, I can be reached at (212) 637-4432.

Sincerely,

Douglas M. Pocze
Remedial Project Manager

cc: J. Greco, NYSDEC
M. Wojnas, GAFB
L. Hancsak, AFBCA/NE
S. DiMeo, Executive Director (Griffiss Land Development Corporation, 153 Brooks Road, Griffiss AFB, NY 13441
bcc: B. Wing, ERRD-SPB

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010



John P. Cahill
Commissioner

January 5, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Finding of Suitability to Lease (FOSL),
Bldg. 782; Griffiss Air Force Base (ID No. 633006)

I have reviewed the referenced document and request clarification in the final version to indicate that the Lessee will be responsible for obtaining **all** environmental permits and approvals applicable to the operations ultimately conducted at the property. Such permits may include those specified in the FOSL (e.g., waste water discharge permits, hazardous waste storage permits, etc.), as well as those which were not addressed (e.g., air discharge permits, SPDES permits, etc.). Other comments are:

1. Section 5.3.3 does not restrict the use of the existing oil/water separator. Does the Lessee plan on using this feature of the site? If so, please be sure that all necessary permits are obtained.

2. Attachment 3 indicates a possible negative impact upon air quality. What is this based upon?

Please contact me at (518) 457-0549 if you would like to discuss this matter.

Sincerely,

Jonathan Greco
Project Manager
Division of Environmental Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
S. Dimeo
M. Chen
D. Swerdowski/R. Vaas
S. Ervolina

Attachment 8

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 782
AFBCA RESPONSE TO REGULATORY COMMENTS

1. The United States Environmental Protection Agency (EPA, Region 2) submitted draft comments on January 24, 2000 (e-mail) in response to the January 3, 2000 consolidated draft of the subject FOSL. Their comments are addressed as follows:

a. General Comment #1, AFBCA respose: As stated in the last paragraph of each specific section, the lessee is restricted from all subsurface disturbing activities unless approved by the Air Force. Under a lease, the Air Force maintains control of the property. All subsurface work performed by a lessee on the property is coordinated with the AFBCA through the "dig permit" process. Since all intrusive activities are reviewed and either approved/disapproved by the AFBCA, restricted areas do not need to be shown on the map. This procedure is consistent with previous lease documents.

b. Specific Comment #2, AFBCA response: AFBCA concurs and page 4 has been revised.

c. Specific Comment #3, AFBCA response: SixMile Creek and WSA Lagoon are grouped together as one AOC site, SD-32. Surface water and sediment sampling was performed at the lagoon under the RI. The investigations performed at the lagoon site under the RI are not connected to the AOI/AOC 9 investigations that were started under the AOI program and are still ongoing.

d. Specific Comment #4, AFBCA response: AFBCA concurs and page 5, SS-34 was revised.

e. Specific Comment #5, AFBCA response: See General Comment #1 response. During the "dig permit" review process, the type and location of the ground disturbing activities proposed by the lessee are evaluated. Each permit is reviewed on a case by case basis for impact on the remedial activities and potential exposures to contamination. The lessee is required through the lease to submit a "dig permit" for all intrusive work greater than 6" below surface grade.

f. Specific Comment #6, AFBCA response: As stated in this FOSL and the lease documents, the lessee is required to notify the USAF and receive approval from the USAF prior to any construction, alteration, or modification of the facility including repainting. Also note that Section 5.10 has been added to the standard FOSL model requiring the lessee to comply with all applicable laws and regulations that are applicable to the operations conducted by the lessee at the property.

g. Specific Comment #7, AFBCA response: The "negative impact" box for air emissions was incorrectly marked. Attachment #3 has been revised to indicate "no effect" upon air quality. The only potential air emissions generated from the construction of professional modular buildings would be sawdust that will be mitigated with dust collectors.

2. The New York State Department of Environmental Conservation submitted comments on January 5, 2000 in response to the January 3, 2000 consolidated draft of the subject FOSL. Their comments are addressed as follows:

a. General Comment, AFBCA response: Section 5.10, Regulatory Compliance/Permits/Reports (by Lessee), has been added to the FOSL indicating that the lessee is responsible for obtaining all environmental permits and approvals.

b. Comment #1, AFBCA response: Section 5.3.3 has been revised to include the use restriction for
OWS-5730-2. This system is not operational and is still undergoing an investigation as part of AOC site SD-41.

c. Comment #2, AFBCA response: See response to EPA comment #7.

SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY
Building 782
Griffiss Air Force Base (AFB), NY

CHAPTER 1 - PURPOSE OF THE SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

1.1 Introduction. This Supplemental Environmental Baseline Survey (SEBS) has been prepared to document the environmental condition of Building 782 and the associated property resulting from the storage, release, or disposal of hazardous substances and/or petroleum products and other environmental conditions over the area's history in order to establish a baseline for use by the United States Air Force (USAF) in making decisions concerning real property transactions. Changes in the environmental condition of the property since publication of the Griffiss AFB Basewide EBS are also documented in this SEBS.

1.2 Description:

The property consists of a total of approximately 9.57 acres. The property includes Building 782 (28,251 SF), the concrete paved area to the southeast and the grassed area located to the northwest of the nosedocks.

CHAPTER 2 - SURVEY METHODOLOGY

2.1 Approach and Rationale. The data used in preparing this SEBS were obtained from the Griffiss AFB Basewide EBS dated September 1994. The EBS was based on record searches, interviews, and visual site inspections (VSIs). The data and information contained in the EBS were prepared in accordance with Department of Defense (DoD) policies and guidance, as they pertain to the procedures for conducting an EBS. A confirmatory VSI was conducted and additional data was collected in December 1999, to verify the condition of the property.

Based on a review of the Basewide EBS and a VSI of the property, Building 782 and surrounding pavements are considered DoD Environmental Condition Category 7. Category 7 areas are areas that are not evaluated or require additional evaluation.

The United States Environmental Protection Agency (USEPA) has concurred that further investigations are required.

2.1.1 Description of Documents Reviewed. A list of the documentation reviewed is provided in the Griffiss AFB Basewide EBS. The primary types of studies or investigations included Installation Restoration Program (IRP) studies, USAF Base Realignment and Closure (BRAC) Cleanup Plan (April 1994), the 1993 USAF Real Property Inventory, underground storage tank/above ground storage tank (UST/AST) investigations, National Environmental Policy Act documentation, the 1993 Environmental Compliance Assessment and Management Program (ECAMP) Environmental Findings Preliminary Report, and Federal, State, and local documentation.

2.1.2 Inspection of Properties Conducted. VSIs of the interior and exterior of the building and associated property were conducted during preparation of the Basewide EBS. A confirmatory VSI was conducted in December 1999 to document any changes in the property condition that had occurred since the initial Basewide EBS was published. The purpose of the VSI was to identify any stained soils, stressed vegetation, leachate seepages, unusual odors, friable insulation, peeling paint, etc., which might indicate environmental concern.

2.1.3 Personnel Interviews. Base personnel were contacted and interviewed, when possible, during the initial records search and VSI trips conducted for the Basewide EBS. Personnel interviewed during the Griffiss AFB Basewide EBS included representatives from civil engineering, real property, industrial engineering, and operations. The USAF Remedial Project Manager (RPM), who is responsible for initiating and managing projects that are necessary to evaluate and cleanup sites that have been contaminated with hazardous substances and waste from past base activities, was also interviewed.

CHAPTER 3 - FINDINGS FOR BUILDING 782

3.1 Environmental Setting. Griffiss AFB occupies approximately 3,540 acres in central Oneida County in upstate New York, in the City of Rome. A description of the area's climate, topography, hydrology, geology and utilities are contained in Section 3.2 of the Griffiss AFB Basewide EBS.

3.2 Property Categorization Resources

3.2.1 Environmental Factors. There are/was no record or evidence of medical/ biohazardous waste, ordnance, and radioactive waste releases on the subject property. No sensitive habitats or prime or unique farmland concerns are associated with the property. There are no threatened or endangered species, cultural resources, and wetland or floodplain concerns associated with this property.

3.2.2 Hazardous Substance/Material Storage.

Past activities on the property included the storage of hazardous substances and wastes at the satellite accumulation point (STW-782) located inside Building 782, as part of aircraft maintenance activities. The New York State Department of Environmental Conservation (NYSDEC) on August 11, 1999 approved final closure of the sites.

3.2.3 IRP Sites, Areas of Concern (AOC) Sites and Areas of Interest (AOIs) Sites. There are three (3) AOC sites located within the subject property.

AOC/IRP Site ID	Site Name
SD-41	Bldg 782, Nose Docks 1 & 2
SS-46	Glycol Use/Storage Areas
SD-52	On Base Groundwater

SD-41, Building 782 (Nose Docks 1 & 2) is an AOC that is located adjacent to Buildings 782 and 783, between Aprons 1 and 2. The site consists of two areas of contaminated soil, one area associated with releases from an oil/water separator (OWS) located near the northeastern corner of Building 782, and the second area associated with a soil fire that occurred during trenching operations between the Nose Docks and Apron 1. Stained soil has been excavated to a depth of 2 feet; however, contamination below this level is known to exist. The Draft Final Remedial Investigations (RI) report issued in December 1996 recommended removal of the OWS and contaminated soils, investigation of the source of contamination in the vicinity of the trench fire along the southern edge of Apron 1, and the evaluation of remedial alternatives for the remediation of contaminated soils and groundwater in the area. The RI report also recommended delineation of petroleum hydrocarbon contamination in the groundwater at the site. Additional investigations are presently being performed under project JREZ97-6003, Remedial Action for Former Underground Storage Tanks (USTs) sites.

SS-46, Glycol Use and Storage Area, is an AOC that was recommended for no further action in the Draft Final RI report dated December 1996. This AOC is primarily associated with glycol spills in the vicinity of Apron 2. Regulator concurrence has not been obtained.

At **SD-52, On Base Groundwater Contamination**, the groundwater on the property was investigated and analytical results are presented in the Draft Final RI report dated December 1996. Releases to the groundwater of petroleum hydrocarbons have occurred at the property, associated with site SD-41.

All AOIs on the subject property have been classified as Covered Under Other Programs or No Further Study.

3.2.4 Underground and Aboveground Storage Tanks (USTs and ASTs)

There are two (2) USTs and one (1) former UST sites on the property. Table 3.2.4 lists the storage tank numbers, location and status of the tanks.

Table 3.2.4
Storage Tanks

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-5730-1 Waste Oil	2,000	Northwest of B/782 Associated with OWS-5730-1 (SD-41)	9413416 Open	Removed 1994 920077	1994
UST-5730-2 Waste Oil	2,000	Northwest of B/782 Associated with OWS-5730-2 (SD-41)	9413416 Open	Closed in Place Invest 960020	1997

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-8005 JP4/8, Type III Fuel System	4,000	East of B/782	None	Temporarily Closed	1999

* All tanks listed as closed on the above table have been removed from the Griffiss AFB Major Oil Storage Facility license.

3.2.5 Petroleum, Oil and Lubricant Systems (POL)

There are three (3) abandoned in place and closed underground fuel lines sites on the property. Table 3.2.5 lists the POL numbers, location and status of the systems.

Table 3.2.5
Hydrant Fueling and Pipeline Systems

POL Number	Location	Releases/ Spill Number /Status	POL Status/Removal Project Number	POL Closure Date
POL-772-2	Type III System, refuel/defuel loop east & west sides of Apron 2	9713631 associated with Apron 2 - Open	Deactivated 1995. Cleaned & sampled under 95-7050	1995
POL-773-2	Runs north and south just east of Apron 1 and supplied the refueling pits for Easy Row, Apron 1	9707954 associated with Apron 1 - Open	Deactivated 1993. Cleaned & sampled under 95-0038 Further investigations under 97-6003	1996
POL-781-2	Runs north and south just east of Apron 2 and supplied the refueling pits for Baker Row, Apron 2	9608239 closed 10/2/96 9713631 associated with Apron 2 - Open	Deactivated 1993. Cleaned & sampled under 95-0038 Further investigations under 97-6003	1996

3.2.6 Oil/Water Separators (OWSs)

There is one (1) OWS site and one (1) former OWS site located on the property. Table 3.2.6 lists the OWS numbers, location and status of the OWSs.

Table 3.2.6
Oil/Water Separators

OWS Number	Location	Releases/ Spill Number /Status	OWS Status	OWS Closure Date
OWS-5730-1	Northwest of B/782	9413416 Open	Removed 1995 under 92-0077 Further investigations under 96-0020	IRP Site SD-41
OWS-5730-2	Northwest of B/782 Replaced OWS-5730-1 Same location	9413416 Open	Closed in Place Further investigations under 96-0020	IRP Site SD-41

3.2.7 Wastewater

Building 782 is connected to a sanitary sewer.

3.2.8 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven munitions related sites are identified to be present within the property. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property.

3.2.9 Historic Property

The draft Historic Structures Survey dated October 1995 was issued for review and revised on July 14, 1998. Comments on the revised draft were received from the NY State Office of Parks, Recreation and Historic Preservation on September 9, 1998. Based on the comments received, all buildings located within the property have been released from consideration.

3.3 Disclosure Resources

3.3.1 Asbestos Containing Materials (ACM)

The asbestos survey results of buildings on Griffiss AFB are presented in Appendix H, table H-1 of the Basewide EBS. Subsequent to the publication of the Basewide EBS, a comprehensive asbestos survey was performed in the fall of 1994. ACM was identified in Building 782. The asbestos observed during the VSI generally appeared in good condition with the exception of minor damage to a few pipe insulation elbows and runs (fiberglass) as noted in the VSI report. An asbestos abatement project was performed in June 1999 consisting of the repair of 6 LF of pipe insulation.

3.3.2 Lead-Based Paint (LBP)

LBP may be present in Building 782. The Air Force has classified this facility as a facility with a probability of having a LBP hazard because it was constructed prior to 1978 when the maximum allowable content of lead in paint was reduced.

CHAPTER 4 - FINDINGS FOR ADJACENT PROPERTIES

4.1 Adjacent Properties. Appendix A, Table A-1 in the Basewide EBS, identifies the properties that are adjacent to the subject property. Additional information on each site is provided in Appendix D of the Basewide EBS. There are three (3) AOC)s or IRP sites located on adjacent property that may impact the property.

AOC/IRP Site ID	Site Name
SD-32	Six Mile Creek and WSA Lagoon
SS-34	Building 786 (Nose Dock #5) - Soil Contamination
ST-37	Building 771, Pumphouse 5

SD-32, Six Mile Creek and WSA Lagoon, is an AOC located north of the property. The Air Force recommended in its Draft Final RI report dated December 1996 that a feasibility study be performed to evaluate potential remedial actions required to mitigate chemicals of concern in the surface water and sediments. The draft Feasibility Study (FS) was issued in January 1999. USEPA comments on the draft FS were received on April 8, 1999 and comments were received from the NYSDEC on April 9, 1999.

SS-34, Building 786 (Nose Dock #5) - Soil Contamination, is an AOC. Liquids used in the area included oil, solvents, and fuels. An aboveground storage tank (AST) for storage of liquid wastes was formerly located on the east side of Building 786. In 1990, the AST and the surrounding contaminated soil were removed and the tank was replaced with three underground storage tanks (USTs). The draft final RI report was issued in December 1996. Contaminated surface soil will be removed in 2000 in the area of the former AST and additional investigation of the contaminated subsurface soils and groundwater will be performed under project number JREZ97-6042B, Close Spill Sites.

ST-37, Building 771, Pumphouse 5, is a Source Removal Site. Construction of an Industrial Access Road has occurred adjacent to the Pumphouse 5 site. A source removal action has been completed at Pumphouse 5. Residual contamination in the soil and groundwater is being addressed under funded project JREZ96-0021, Close Pumphouse 5.

CHAPTER 5 - PROPERTY CATEGORY

5.1 Conclusions: Based on a review of the Basewide EBS and a VSI of the property, Building 782 and surrounding pavements are considered DoD Environmental Condition Category 7. Category 7 areas are areas that are not evaluated or require additional evaluation.

The USEPA has concurred that further investigations are required.

The identified IRP sites within and adjacent to the property are not expected to pose a concern to the leasing of the property.

CHAPTER 6 - CERTIFICATION

I certify that the property conditions stated in this report are based on a thorough review of available records, visual inspections, and sampling and analysis as noted, and are true and correct to the best of my knowledge and belief.

MICHAEL McDERMOTT
BRAC Environmental Coordinator
AFBCA/DA - Griffiss

31 JAN 2000
Date

Attachments:
1. Table H-1 (EBS)
2. Comprehensive Asbestos Survey

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 782 HANGAR

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
EXT	Floor:0X Exterior	3700 sqft	7						Dir
	AAA Ceiling - Transite	570 sqft	7	1	2	0	0	Assmd Pos.	Material Under Roof Overhang.
STAIR	Floor:01 Hallway Or Stairs	90 sqft	8						No Suspected Asbestos Containing Material In Space.
	NNN Wall - Sheetrock	-		-	-	-	-	Assmd Neg.	Ultra-wall/untaped Sheetrock, Non-asbestos Containing Material.
	NNN Ceiling Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
HANGAR	Floor:01 Hangar	23000 sqft	2						Functional Space Includes Area Over Small Storage Rooms In Hangar.
	001 Piping - Heating Hot Water	500 ft		1	2	0	0	Negative	Tar And Foil Wrap Over Fiberglass.
	001 Piping - Heating Hot Water	1800 ft		1	2	0	0	Negative	Tar And Foil Wrap Over Fiberglass.
	002 Fitting - Heating Hot Water	25 ftgs	2	1	2	6	0	Positive	
	002 Fitting - Heating Hot Water	70 ftgs	2	1	2	6	0	Positive	
	005 Door Core Insulation - Fire Do	63 sqft	3	1	2	6	0	Positive	Block Material Inside Metal Doors.
	AAA Hvac - Flexible Duct/flex Duct	20 sqft	3	1	2	3	0	Assmd Pos.	Canvas-like Material.
	NNN Outer Wall Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Ceiling Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
BREAK	Floor:02 Lounge	610 sqft	3						
	008 Mastic Floor	610 sqft		1	8	0	0	Negative	Black.
	AAA Ceiling Tile - Lay In	500 sqft	3	1	2	3	0	Assmd Pos.	2' X 4' White Fissured Pattern.
	NNN Wall - Sheetrock	-		-	-	-	-	Assmd Neg.	Ultra-wall/untaped Sheetrock, Non-asbestos Containing Material. Above Ceiling.
	NNN Domestic Hot Water Tank	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Under Metal Jacket.
	NNN Ceiling - Sheetrock	-		-	-	-	-	Assmd Neg.	Ultra-wall/untaped Sheetrock, Non-asbestos Containing Material. Above Ceiling.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 782 HANGAR

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
MECH	Floor:01 Mechanical Room	1000 sqft	2						
	001 Piping - Heating Hot Water	45 ft		2	5	0	0	Negative	Tar And Foil Wrap Over Fiberglass.
	001 Piping - Heating Hot Water	150 ft		2	5	0	0	Negative	Tar And Foil Wrap Over Fiberglass.
	002 Fitting - Heating Hot Water	4 ftgs	2	1	5	6	0	Positive	
	002 Fitting - Heating Hot Water	40 ftgs	2	1	5	6	0	Positive	
	003 Mech Equip. - Heat Exchanger	45 sqft	2	1	5	6	0	Positive	
	004 Mech Equip. - Tank	60 sqft	2	4	2	6	0	Positive	No Asbestos Containing Materials On Ends Of Tank.
	005 Door Core Insulation - Fire Do	21 sqft	2	2	5	6	0	Positive	Block Material Inside Metal Doors.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Outer Wall Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
ROOF1	Floor:1R Roof	36 sqft	8						No Suspected Asbestos Containing Material In Space. Peaked Roof.
ROOF2	Floor:2R Roof	25000 sqft	8						No Suspected Asbestos Containing Material In Space. Peaked Roof.
STOR1	Floor:01 Storage	280 sqft	2						
	006 Ceiling - Sheetrock	240 sqft	3	5	2	1	0	Positive	
	AAA Vinyl Composite Tile Floor	280 sqft	7	2	8	0	0	Assmd Pos.	Many Types: 12" X 12" Gray Mottled; 9" X 9" Brown With Red Streaks; 12" X 12" Black; 12" X 12" Tan With Maroon Streaks; 12" X 12" Gray With White Streaks.
STOR2	Floor:01 Storage	885 sqft	7						
	007 Ceiling Mastic	90 sqft	7	0	2	0	0	Positive	Dark Brown.
	AAA Vinyl Composite Tile Floor	885 sqft	7	2	8	0	0	Assmd Pos.	Many Types: 12" X 12" Gray Mottled; 9" X 9" Brown With Red Streaks; 12" X 12" Black; 12" X 12" Tan With Maroon Streaks; 12" X 12" Gray With White Streaks.
	NNN Ceiling - Glued Tile	-		-	-	-	-	Assmd Neg.	12" X 12" White Fisssured, Fiberglass.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 782 HANGAR

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
STOR3	Floor:02 Storage	154 sqft	7						
	AAA Vinyl Composite Tile Floor	154 sqft	7	2	8	0	0	Assmd Pos.	Many Types: 12" X 12" Gray Mottled; 9" X 9" Brown With Red Streaks; 12" X 12" Black; 12" X 12" Tan With Maroon Streaks; 12" X 12" Gray With White Streaks.
TOIL	Floor:02 Toilet Room	390 sqft	7						
	001 Piping - Heating Hot Water	6 ft		2	5	0	0	Negative	Tar And Foil Wrap Over Fiberglass.
	009 Ceiling - Sheetrock	40 sqft		1	2	1	0	Negative	
	AAA Vinyl Composite Tile Floor	40 sqft	7	2	8	0	0	Assmd Pos.	Many Types: 12" X 12" Gray Mottled; 9" X 9" Brown With Red Streaks; 12" X 12" Black; 12" X 12" Tan With Maroon Streaks; 12" X 12" Gray With White Streaks.
	NNN Ceiling Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.

Bldg	Location	Quantity	Building Element	Inspection Date	Last Inspection	Number	Result	Comments
782	Mechanical Room		Heat Exchange Insulation	87/09/23		GM870300	85	Domestic hot water heat exchanger. Fair to Poor condition. 85% Chrysotile, 7% Amosite
782	Mechanical Room		Heat Exchange Insulation	87/09/23		GM870408	80	Domestic Hot water heat exchanger. Fair to poor condition. Chrysotile.
782	Mechanical Room		Pipe Joint Insulation	87/09/23		GM870409	80	Chrysotile
782	Mechanical Room		Pipe Insulation	87/09/23		GM870410	65	Steam entrance pit, old insulation. Chrysotile
783	Mechanical Room		Heat Exchange Insulation	87/09/23		GM870411	35	Block Insul, poor cond. All other insul same as bldg. 782, good condition. 35% Chrysotile, 15% Amos
784	Mechanical Room			87/09/23				Good Condition. Insulation same as in building 782.
784	Mobility/Training		Floor Tile	90/03/14		GM900075	ND	12' RED
784	Mobility/Training		Floor Tile Mastic	90/03/14		GM900076	ND	
785	Mechanical Room			87/09/23				Good condition. Insulation same as in building 782.
786	Mechanical Room			87/09/23				Good Condtion. Insulation same as in building 782.
789	Boiler Room		Boiler Stack Insulation	91/02/05		CE910162	14	AMOSITE.
789	Boiler Room		Steam Pipe Fitting Insulation	91/02/05		CE910163	9	CONDENSATE LINE.
789	Boiler Room		Water Tank Insulation	91/02/05		CE910164	28	HOT WATER STORAGE TANK OUTER INSULATION OVER FIBERGLASS.
793	Mechanical Room		Small Boiler	87/06/15		GM870273	60	60% chrysotile, 25% amosite. Encapsulated in Jun 1987. Good condition.
793	Mechanical Room		Large Boilar	87/06/15		GM870274	30	5% chrysotile, 30% amosite. Encapsulated in Jun 1987.
793	Mechanical Room		Gray Piping Insul.	87/06/15		GM870275	25	chrysotile
793	Bathroom		Pipe Insulation	87/12/22		GM870731	ND	Pipe insulation between floors.
793	Lower Level, Room A		Door Insulation	90/02/20		GM900035	ND	FIRE RATED DOOR.
793	Fox Row		Water Main	91/09/12		CE910507	41	19% CHRYSOTILE, 22% CROCIDOLITE.
799	B-Alert Guard House			91/05/16				THIS FACILITY IS ASBESTOS FREE.
805	Generator Room		Water Line Fitting	92/06/22		CE920196	8.7	CHRYSOTILE, CAL-SIL TYPE MUDDED INSULATION.
805	Generator Room	50	Water Line Insulation	92/06/22		CE920197	ND	MILLBOARD INSULATION.
805	Main Rm	900 SF	Floor Tile	92/06/22				9" X 9" VINYL ASBESTOS TILE. THE GENERATOR ROOM HAS A CONCRETE FLOOR.
811	Tower Ceiling		Ceiling Tile	91/05/16		CE910256	ND	1' SQUARES
817	Center of Bldg		Ceiling Tile	89/05/18		GM890123	ND	

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

January 25, 2000

Mr. Michael O'Toole P.E. Director
Division of Environmental Remediation
NYS Dept. of Environmental Conservation
50 Wolf Road, Room 260B
Albany, NY 12233=7010

RE: Proposed Plan for Landfill 4
Griffiss Air Force Base
Site ID #633006
(C) Rome, Oneida County

Dear Mr. O'Toole:

My staff have reviewed the Proposed Plan for Landfill 4 at the former Griffiss Air Force Base located in Rome, Oneida County. Based upon that review, I understand that the proposed remedial alternative calls for No Further Action because the concrete vault formerly used for disposal of radioactive materials, its contents, and some surrounding soil have been removed as an interim measure. The Plan will include deed notification is case of property transfer and long term monitoring of the groundwater.

With these actions, I believe that the remedy is protective of public health. If you have any questions, please call Michael Rivara or me at (518) 402-7890.

Sincerely,

G. Anders Carlson, Ph.D., Director
Bureau of Environmental Exposure Investigation

cc: N. Kim, Ph.D.
Mr. M. Rivara/FILE
Ms. H. Hamel
Mr. N. Caruso-OCHD
Mr. J. Greco-DER
Mr. D. Sweredoski-DEC, Region 6

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JAN 3 1 2000
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JAN 19 2000

Mr. Jonathan Greco
New York State
Department of Environmental Conservation
Division of Environmental Remediation
50 Wolf Rd.
Albany, NY 12233-7010

Re: Findings of the Regional Administrator,
Parcel F-2, Griffiss Air Force Base

Dear Mr. Greco:

I am writing to you with regard to the AF's *"Covenant Deferral Request"* (CDR) and *"Findings of Suitability for Early Transfer"* (FOSET) for the transfer of Parcel F2 at Griffiss Air Force Base, Rome, New York. Based on certain findings and assurances as required by CERCLA Section 120(h)(3)(c), EPA, with the concurrence of the state, may defer the CERCLA requirement that "all necessary remedial action necessary to protect human health and the environment with respect to..... the property has been taken before the date of such transfer." Both EPA Region 2 and NYSDEC staff have reviewed the CDR and FOSET and have determined that these findings (i.e., that the property is suitable for transfer) and assurance requirements (e.g., for appropriate restrictions until the property is subsequently cleaned up) have been met by the AF.

My office has briefed Richard Capse, Director, Emergency and Remedial Response Division, EPA Region 2 on this matter. We have prepared the attached *"Findings of the Regional Administrator, EPA for Parcel F2"* which the Regional Administrator (RA) will sign following concurrence by Governor Pataki. Please forward this document (with the CDR and FOSET as necessary) to the Governor for his signature to acknowledge state concurrence. Upon signature by the Governor, please return the original to this office which will arrange for signature by the RA to signify EPA approval.

Sincerely,

Robert Wing, Chief
Federal Facilities Section

Attachment

cc: Pocze, FFS
M. Chen, NYSDEC

FINDINGS OF THE REGIONAL ADMINISTRATOR, EPA
WITH THE CONCURRENCE OF THE GOVERNOR, NEW YORK STATE
REGARDING
EARLY TRANSFER OF PARCEL F2 AT GRIFFISS AIR FORCE BASE (AFB)

I make the following findings to authorize the United States Air Force to transfer Parcel F2 consisting of approximately ninety-four (94) acres on Griffiss Air Force Base and to defer inclusion of the covenant required by Section 120(h)(3)(A)(ii)(I) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in the Quitclaim Deed used to do so. This action is authorized by CERCLA § 120(h)(3)(C) when the United States is not yet able to covenant that "all remedial action necessary to protect human health and the environment... has been taken," an evaluation of the property determines that it can be safely used, and the Air Force provides adequate assurances that it will satisfy its commitment to complete required response actions in a timely manner.

The determination that Parcel F2 is suitable for transfer at this time, based on the property's intended use and the assurances contained in the Quitclaim Deed and/or other agreement related to the transfer (which are required to conform with Section 120(h)(3)(C)(ii) of CERCLA) is not to be construed, either expressly or impliedly, as concurrence on or approval of (1) the findings and/or conclusions set forth in Covenant Deferral Request and its supporting documentation, nor (2) any determination with regard to response actions which have yet to be selected or taken at the Griffiss Air Force Base Site. Furthermore, the determination, as noted above, is not to be construed as a waiver of the right to challenge or dispute the selection of, or performance of, any future response actions in accordance with any agreement or applicable law.

I have reviewed the particulars of the proposed transfer in the attached Covenant Deferral Request for Parcel F2 and make the following findings:

1. The property is suitable for transfer for commercial and industrial use and this use is consistent with protection of human health and the environment as it pertains to CERCLA hazardous substances. This finding is based on the Covenant Deferral Request, the Air Force Finding of Suitability for Early Transfer, and the Air Force Supplemental Environmental Baseline Survey of the Parcel.

2. The Quitclaim Deed and/or other agreement memorializing the transfer contain the response action assurances required by Section 120(h)(3)(C)(ii) of CERCLA. Specifically, the Quitclaim

Deed and agreement protect human health and the environment as it pertains to CERCLA by restricting use of groundwater and access to areas which have not yet been fully evaluated; provide restrictions to ensure that remedial investigations, response actions and oversight activities will not be disrupted; provide that all response actions will be taken and identify schedules for investigations and completion of such actions; and obligate the Air Force to submit a budget request that address schedules for investigations and completion of such actions.

3. The Air Force provided public notice of the proposed transfer on October 10, 1997, by publication in the Rome Sentinel, a newspaper of general circulation in the vicinity of the property, and provided the public with not less than thirty (30) days in which to submit written comments on the suitability of the property for transfer.

4. The deferral and transfer of Parcel F2 will not delay any necessary response action on the property.

Therefore, I find Parcel F2 suitable for transfer in accordance with CERCLA § 120(h)(3)(C).

APPROVAL:

_____ _____

Jeanne M. Fox
Regional Administrator,
U.S. EPA, Region 2

Date

CONCURRENCE:

_____ _____

George E. Pataki
Governor, State of New York

Date

New York State Department of Environmental Conservation
Division of Environmental Remediation
Rm. 260B, 50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 FAX: (518) 457-8404



John P. Cahill
Commissioner

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Draft Final Proposed Plan for Landfill # 4
Griffiss Air Force Base (ID No. 633006)

The New York State Department of Environmental Conservation (NYSDEC), in conjunction with the New York State Department of Health (NYSDOH), has reviewed the referenced draft final Proposed Plan and finds it to be acceptable.

Please include a statement in the final version of this document indicating this Department's concurrence.

If you have any questions or comments on this matter, please contact Mr. Sal Ervolina, of my staff, at (518) 457-4349.

Sincerely,

Michael J. O'Toole, Jr.
Director
Division of Environmental Remediation

c: R. Caspe, USEPA
R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
D. Sweredoski Reg. 6, Watertown
L. Hansak
S. Dimeo

bc: M. O'Toole (2)
T. Quinn
S. Ervolina
M. Chen

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Eastern Remedial Action
50 Wolf Road, Albany, New York 12233-7010
Phone: (518) 457-5861 FAX: (518) 485-8404

John P. Cahill
Commissioner

MEMORANDUM

To: Michael J. O'Toole, Jr., Director, Division of Environmental Remediation
From: Thomas Quinn, Assistant Director, Division of Environmental Remediation
Subject: Draft Final Proposed Plan for Landfill # 4; Griffiss AFB (ID No. 6-30006)
Date: JAN 18 2000

Attached is a copy of the draft final Proposed Plan for the referenced site. This plan has been approved by the Bureau of Radiation and the Division of Fish and Wildlife. A verbal approval has been given by the Department of Health and a letter is expected shortly. The USEPA project manager has forwarded the plan to Division Director Caspe with a recommendation for approval.

The following is a brief site summary:

The Landfill 4 site is a former **low-level radioactive** tube disposal area which was used in the 1950's and 60's. The site consisted of three vertically-stacked concrete rings which had been placed within an approximately twelve-foot deep excavation. The rings were filled over the years with various items, including electron tubes, small electrical components and general refuse (e.g., metal signs, wood scrap, etc.). The uppermost concrete ring served as a cap and was entirely filled with concrete.

Neither the investigation nor the subsequent removal action (taken in the summer of 1997) found a significant risk from the radiation levels in soils or waste. In fact, it appears the removal action was taken as a precautionary measure only, and once excavated, the wastes were dealt with as low-level rad waste solely based upon perception and/or regulatory interpretation. **In short, there was nothing of significance found in the vaults or surrounding soils**, and whatever was there is now disposed of in a low-level radioactive waste disposal facility. This action was performed with the oversight and concurrence of a DEC radiological technician.

The one item which held up the final decision for some time was that the groundwater exhibits levels of both gross alpha and beta activity well above standards. While it is believed that this is primarily the result of having sampled the groundwater via hydropunch® and temporary wells, this has not been thoroughly demonstrated. This issue has been resolved by having the **Proposed Plan address only the soils at the site through a No Further Action decision**. Groundwater is to be monitored as part of a forth-coming long-term monitoring program for several areas of groundwater concern at the base. In this specific instance, the Landfill # 4 area will be addressed as part of the Landfill # 6 monitoring program (Landfill # 6 is immediately adjacent and upgradient to Landfill # 4). The Air Force has agreed to place a monitoring well immediately downgradient of the former Landfill # 4 site, and monitoring will include all radiological parameters found in the original hydropunch®/temporary well samples taken at the site.

Recommendation: Based upon the removal action taken at the site, I recommend concurring with the Proposed Plan for **No Further Action** for site soils. Groundwater will be monitored for the previously detected radiological constituents until such time that it can be proven that these constituents are not actually present in the groundwater, but rather were the result of having taken extremely turbid groundwater samples..

Please let me know if you require a briefing on this site.

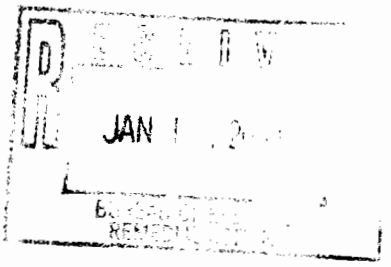
cc. M. Chen
S. Ervolina

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

12 JAN 2000

MEMORANDUM FOR Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

Douglas Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866



FROM AFBCA/DA – Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Drywell Removal Project

1. Attached are Figures and Tables for the Drywell and Miscellaneous Sites Removal Project. The sites included are:

AOI 90	Drywell 846
Drywell 100	WW System 222
Building 211	PCB Pad Perimeter Road
Drywell 842	PCI Site #7

2. Please review the attached materials and submit comments. Once concurrence on the scoping has been obtained, Work Plans will be issued.

3. Please contact Cathy Jerrard at 315-330-2275 if you have any questions.

Michael F. McDermott
BRAC Environmental Coordinator

Atch: As Noted
cc: Wade Brower, AFCEE Griffiss
Michael Quinlan, IT

Table 1
Closure Procedure Activity Summary
Drywell & Miscellaneous Sites Removal Project
Former Griffiss AFB, New York

Closure Activity	*Sites*							
	AOI-90	DRY-100	Bldg.-211	DRY-842	DRY-846	WW-222	PCB Pad	PCI Site 7
Removal of Drywell, Grit Trap, or Drums		✓				✓		✓
Removal of Drywell, Grit Trap, or Vault Contents	✓		✓	✓	✓	✓		
Surface Decontamination			✓					
Assessment of Site Soils (Investigative Sampling)		✓		✓	✓		✓	✓
Confirmation Soil Sampling		✓				✓		
Investigative Wipe Sampling		✓						
Confirmation Wipe Sampling			✓					
Groundwater Assessment (Temporary Well)		✓		✓	✓			✓
Site Restoration	✓	✓	✓	✓	✓	✓		
Disposal of Material	✓	✓	✓	✓	✓	✓		✓

Notes:

1) DRY-842 and DRY-846 are evidently still active and will therefore not be removed.
2) The work at Drywell 100 will need to be coordinated with the Federal Aviation Administration through the Air Force Base Conversion Agency.
3) Removal of DRY-211 has been deleted from the scope of work since past efforts to locate the drywell have failed.
4) This table represents the work planned based on the current scope of work. Actual conditions encountered during performance of the work may warrant changes to the scope of work, and the Table would be updated accordingly. For example, if PCB-contaminated soil is discovered in the area of the Perimeter Road PCB Pad, then remediation may be recommended.

Table 2 - Sampling & Analytical Summary Table
Drywell & Miscellaneous Sites Removal Project
Former Griffiss AFB, New York

Site	Proposed Action/Task	Sampling Task/Rationale	Sample Type/Location	Sample Matrix	Sample Qty (1)	Analytical Test Parameters (2)
AOI-90	Remove sediment from vaults, if present, and Backfill vaults	Waste Sampling – Characterize vault contents for final disposition	Composite material removed from each vault separately (grab for VOCs)	Sediment	2	Full TCLP, PCBs and/or per disposal facility (3)
		Backfill Sampling - Verify that backfill is acceptable for use. Compare results to TAGM RCOs (4)	Composite from borrow source (grab for VOCs)	Soil	1	VOCs, SVOCs, Pest/PCBs, Metals
Dry Well 100	Remove Dry Well	Investigative Sampling – Delineate extent of PCB contamination/guide removal actions – Compare results to 10 ppm action level (5)	Grab sample from bottom and each sidewall of excavation	Soil	5	PCBs
		Confirmation Soil Sampling – Compare results to TAGM RCOs (4) to determine closure	Grab sample from bottom and each sidewall of excavation	Soil	5	VOCs, SVOCs, PCBs, metals
		Investigative Wipe Sampling – Compare results to EPA wipe sample action level	Wipe samples (625 cm^2 area) from the floor of the generator room	Wipe	4	PCBs
		Waste Sampling – Characterize excavated soil for final disposition	Composite of excavated material (grab for VOCs)	Soil	1	Full TCLP, PCBs and/or per disposal facility (3)
		Waste Sampling – Characterize purge water for final disposition	Grab sample of containerized groundwater from purging	Water	1	PCBs, VOCs, metals and/or per disposal facility (3)
		Groundwater Sampling – Compare to TOGS 1.1.1 Standards (6) to assess impact of Drywell contamination on local groundwater	Geoprobe sampling (7) at two locations downgradient of DRY-100	Water	2	PCBs
Building 211	Decontamination of Building Interior	Waste Sampling – Characterization vault water for final disposition	Grab sample of water in vault under floor	Water	1	VOCs, metals and/or per disposal facility (3)
		Waste Sampling – Characterize decontamination liquids for final disposition	Grab sample of containerized water from decontamination activities	Water	1	VOCs, metals and/or per disposal facility (3)

Table 2 - Sampling & Analytical Summary Table
Drywell & Miscellaneous Sites Removal Project
Former Griffiss AFB, New York

Site	Proposed Action/Task	Sampling Task/Rationale	Sample Type/Location	Sample Matrix	Sample Qty (1)	Analytical Test Parameters (2)
Building 211 (continued)		Confirmation Wipe Sampling – Compare results to site specific wipe sample action level of 5µg/100cm^2 to determine closure (8)	Wipe samples (625 cm^2 area) from a 5-foot grid	Wipes	8	Mercury (Hg)
Dry Well 842	Remove Sludge from Drywell	Waste Sampling – Characterize sludge removed from the drywell for final disposition	Composite sample of removed sludge (grab for VOCs)	Sludge	1	Full TCLP, PCBs and/or per disposal facility (3)
		Soil Sampling – Compare results to TAGM RCOs (4)	Grab sample from the bottom of the Drywell upon removal of the sludge	Soil	1	VOCs, SVOCs, PCBs, & metals
		Groundwater Sampling - Compare to TOGS 1.1.1 Standards (6) to assess impact, if any, of Drywell on local groundwater	Geoprobe sample (7) immediately downgradient of DRY-842	Water	1	VOCs, SVOCs, PCBs, & metals (9)
Dry Well 846	Remove Sludge from Drywell	Waste Sampling – Characterize sludge removed from the drywell for disposal	Composite sample of removed sludge (grab for VOCs)	Sludge	1	Full TCLP, PCBs and/or per disposal facility (3)
		Soil Sampling – Compare results to TAGM RCOs (4)	Grab sample from the bottom of the Drywell upon removal of the sludge	Soil	1	VOCs, SVOCs, PCBs, & metals
		Groundwater Sampling - Compare to TOGS 1.1.1 Standards (6) to assess impact, if any, of Drywell on local groundwater	Geoprobe sample (7) immediately downgradient of DRY-846	Water	1	VOCs, SVOCs, PCBs, & metals (9)
WW System 222	Remove Drain/Grit Trap	Waste Sampling – Characterize contents of drain/grit trap for final disposition	Composite sample of material from inside the drain, if present (grab for VOCs)	Sediment	1	Full TCLP, PCBs and/or per disposal facility (3)
		Confirmation Sampling – Compare results to TAGM RCOs (4) to determine closure	Grab sample from bottom and each sidewall of excavation	Soil	5	VOCs, SVOCs, PCBs, pesticides & metals

Table 2 - Sampling & Analytical Summary Table
Drywell & Miscellaneous Sites Removal Project
Former Griffiss AFB, New York

Site	Proposed Action/Task	Sampling Task/Rationale	Sample Type/Location	Sample Matrix	Sample Qty (1)	Analytical Test Parameters (2)
PCB Pad Perimeter Road	Sampling Investigation	Investigative Sampling – Compare results to TAGM RCOs (4) to determine if the soils have been impacted by past storage practices	Grab samples from 0 to 1 foot and 1-2 feet depths on a 50 foot grid	Soil	12	VOCs, SVOCs, PCBs, pesticides & metals
PCI Site #7	Drum Removal	Waste Sampling – Characterize contents of drums for disposal	Collect grab samples from drums if material is present	TBD	TBD	Full TCLP, PCBs and/or per disposal facility (3)
		Investigative sampling – Compare results to TAGM RCOs (4) to determine if the underlying soils have been impacted by the drummed material	Four Geoprobe borings – 2 at each drum cluster - 1 shallow (0-1 ft) and 1 deep (GW) boring at each cluster	Soil	4	VOCs, SVOCs, PCBs, & metals
		Groundwater Sampling – Compare to TOGS 1.1.1 Standards (6) to help assess impact of the drummed contents on groundwater	Advance one Geoprobe boring in the area of the large drum cluster to groundwater (7)	Water	1	VOC, SVOCs, PCBs, & metals (9)

(1) Sample quantity does not include quality control samples, which typically consists of a matrix spike/matrix spike duplicate, field duplicate, equipment rinsate blank and trip blank (VOC analysis only). Note that these QC samples are an AFCEE requirement and will only be used for environmental samples and not samples that are collected for disposal characterization.

(2) Analytical Methods
VOCs by Method 8260B; SVOCs by Method 8270C; PCBs by Method 8082; Pesticides by Method 8081A; Metals by Method 6010B/7XXX

(3) Waste samples will be analyzed to determine final disposition of the material. If the material needs to be shipped off-site for disposal, analytical testing will need to be performed in order to properly characterize the material as hazardous or non-harardous and to meet the permit requirements of the designated disposal facility.

(4) NYSDEC TAGM 4046 Recommended Cleanup Objectives.

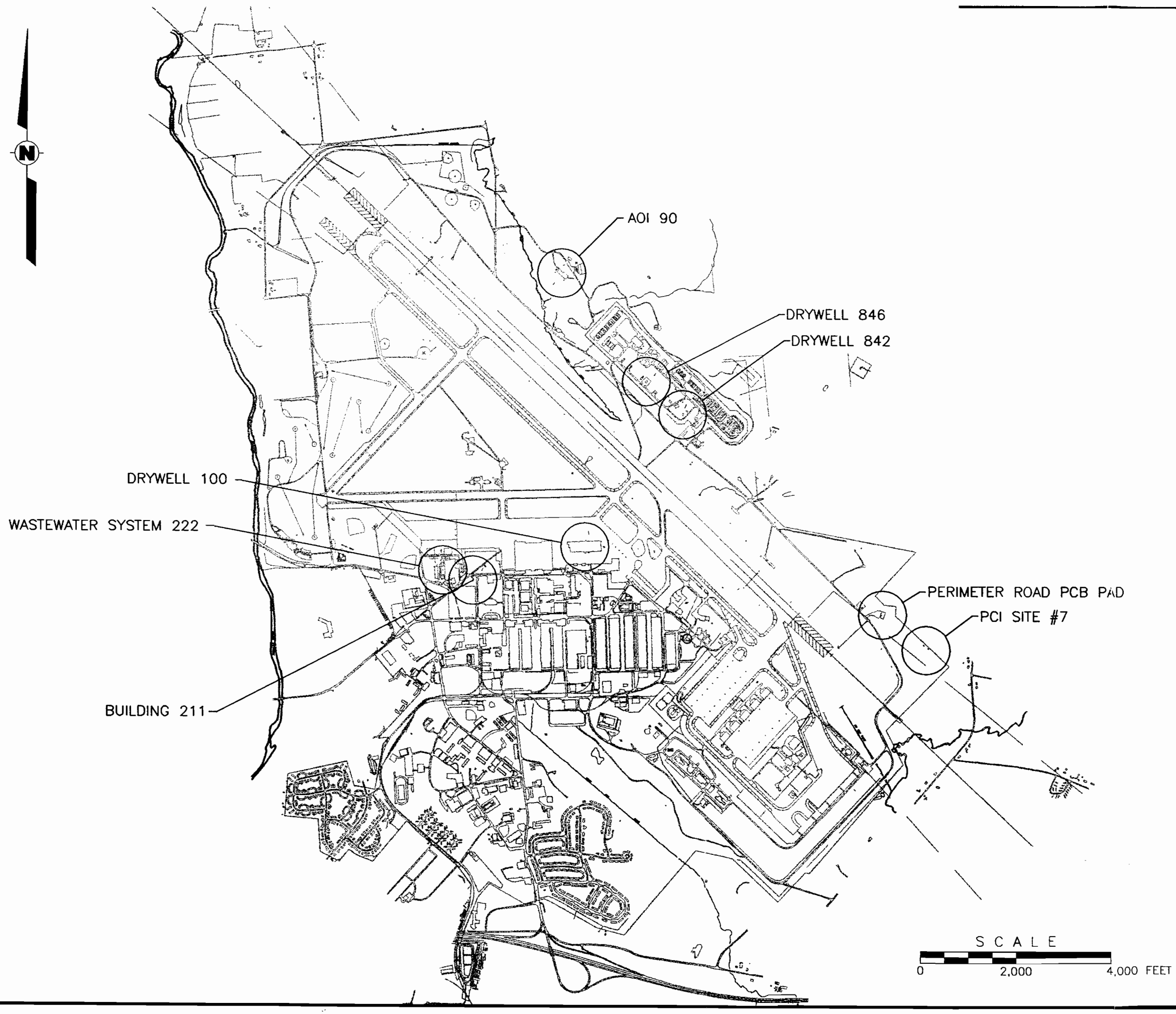
(5) If soil exceeds cleanup criteria additional soil will be removed.

(6) NYSDEC TOGS 1.1.1 Class GA Groundwater Standards.

(7) A temporary well may be installed instead of collecting the sample directly from the Geoprobe apparatus.

(8) The proposed wipe sample action level for mercury was developed by OHM Remediation Services Corporation for closures of all the Hazardous Waste Storage Areas on the former Griffiss Air Force Base. The action level was developed using a methodology for converting a risk-based soil action level from TAGM 3028 to a wipe sample action level. The method is based on an assumed value for dust loading and an assumed relationship between contaminant content in surface dust and contaminant concentration in outdoor soil (Hawley, 1985).

(9) Metals analysis will be conducted on a filtered and a non-filtered groundwater sample.



OHM Remediation Services Corp.

OHM Project No. 1/549

FIGURE 1-1
DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT
SITE LOCATION MAP
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK
PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Coates	10/25/99	AS SHOWN	7549-001
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		0

CONFIDENCE
COURSE
6024

853

6028

SMALL
ARMS
RANGE
6025

854

738

NORTHWEST
VAULT

INDUSTRIAL
SOIL PAD

SOUTHEAST
VAULT

N

LEGEND

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

SCALE

0 80 160 FEET

REFORESTATION
AREA

OHM Remediation Services Corp.

OHM Project No. 1749

FIGURE 1–2

DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT

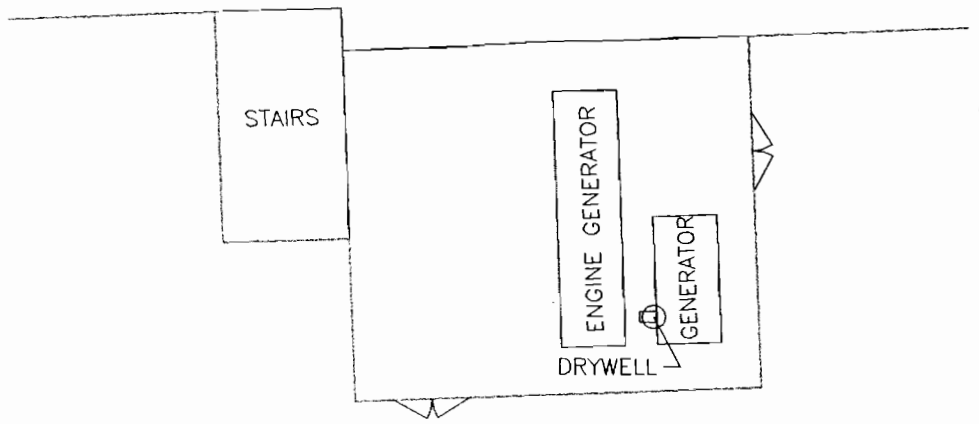
AOI 90 SITE PLAN

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

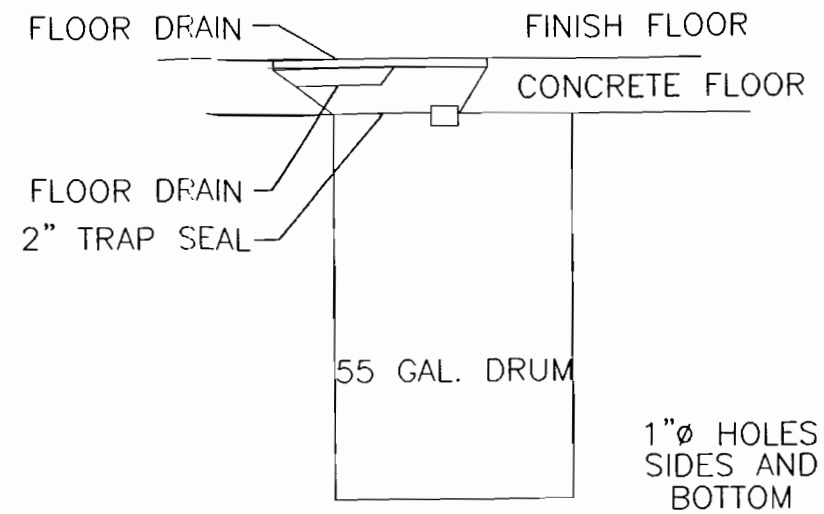
PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Coates	10/25/99	AS SHOWN	7549–001
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Approved By	M.Quinlan	10/25/99		0

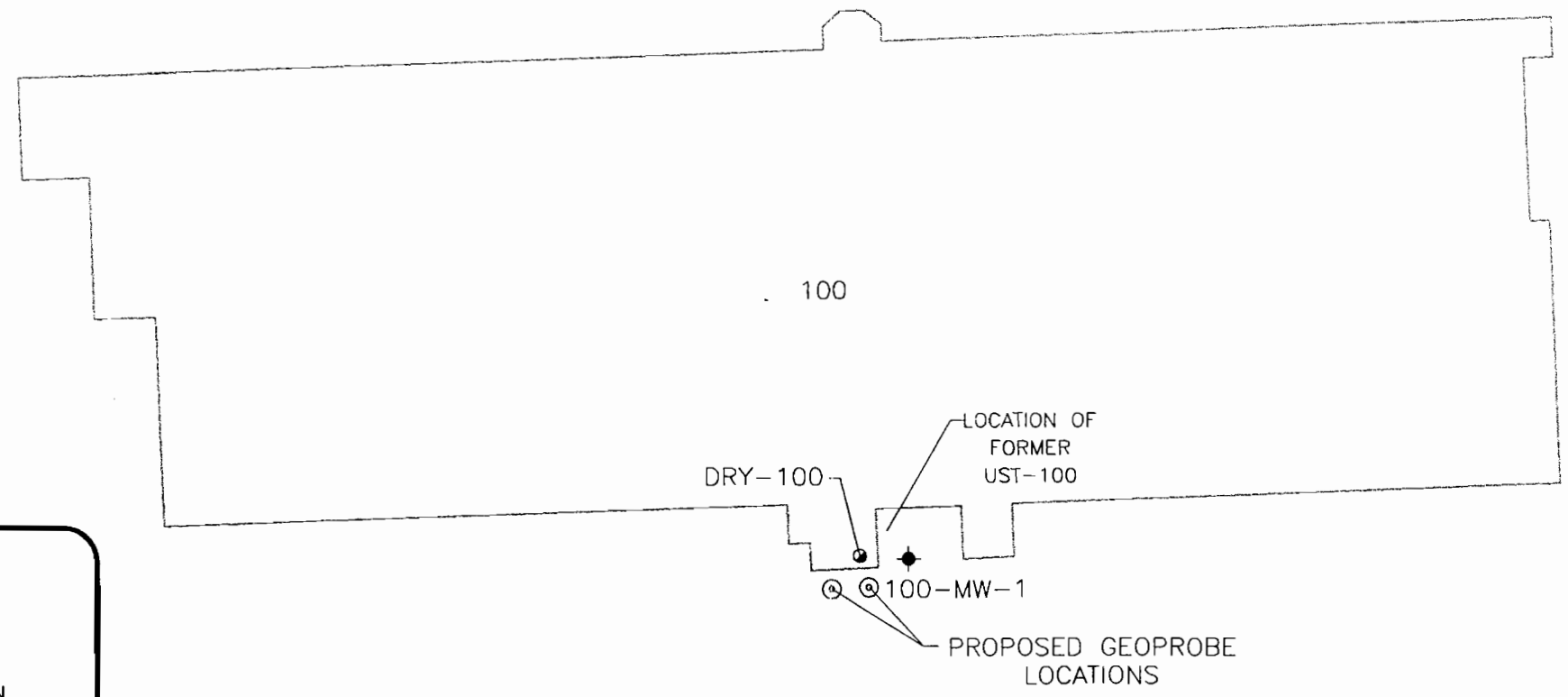
INTERIOR OF GENERATOR
BUILDING ADDITION

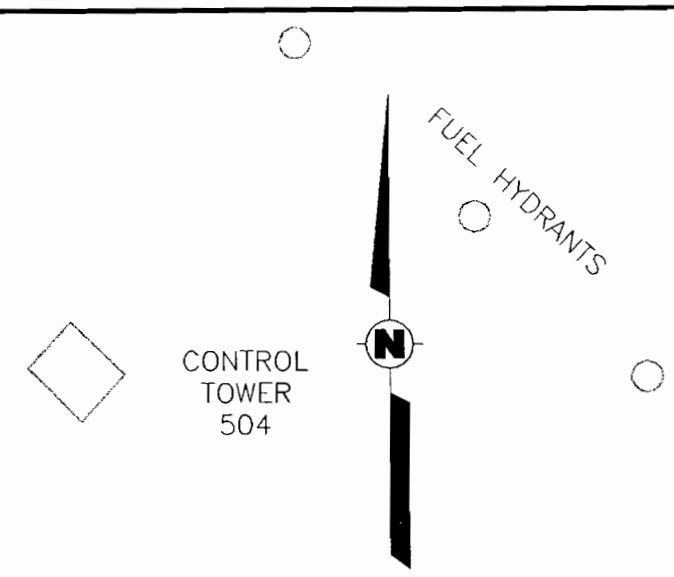


SCALE
0 15 30 FEET



DRY WELL CONSTRUCTION
NOT TO SCALE





LEGEND

- DRYWELL LOCATION
- MONITORING WELL LOCATION
- PROPOSED GEOPROBE LOCATION
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW

NOTE: GRAB SAMPLES WILL BE COLLECTED FROM THE EXCAVATION FOLLOWING REMOVAL OF THE DRYWELL. CONTAMINATED SOIL WILL BE REMOVED IF ENCOUNTERED AND CONFIRMATION SAMPLES WILL BE TAKEN.

NOTE: WIPE SAMPLES WILL BE COLLECTED FROM THE FLOOR OF THE GENERATOR ROOM TO DETERMINE IF PCB CONTAMINATION IS PRESENT.

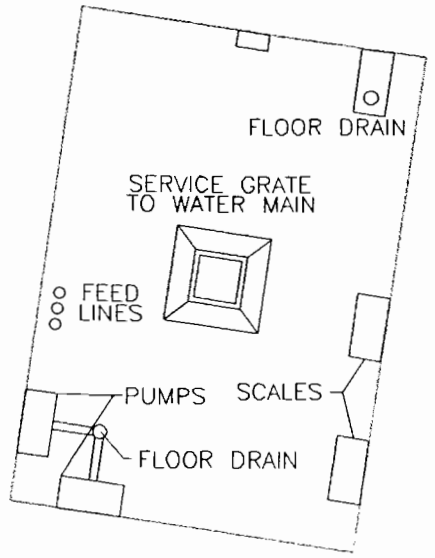
SCALE
0 100 200 FEET

OHM Remediation Services Corp.
OHM Project No. 17549

FIGURE 1-3
DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT
DRYWELL 100 SITE PLAN
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK
PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

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Drawn By	J.Coates	10/25/99	AS SHOWN	7549-001
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		0

CAD File: 7549-001



FLOOR PLAN
NOT TO SCALE

215

216

211

210

MACDILL ST.

HANGAR RD.

MARCH ST.

N

LEGEND

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

NOTE: WIPE SAMPLES WILL BE COLLECTED FROM THE INTERIOR OF THE BUILDING FOLLOWING DECONTAMINATION

SCALE

0 50 100 FEET

OHM Remediation Services Corp.

OHM Project No. 17569

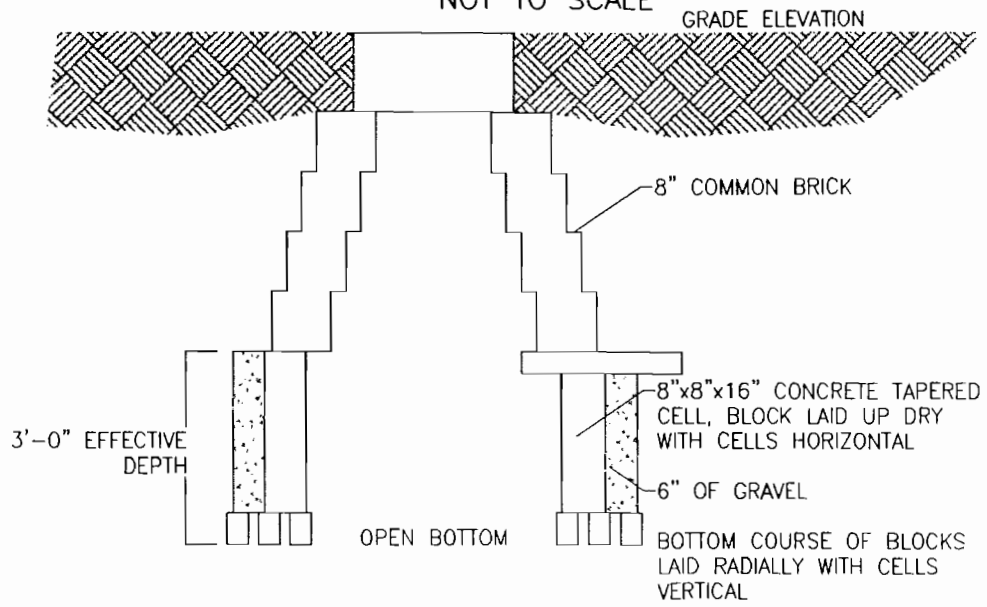
FIGURE 1–4
DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT
BUILDING 211 SITE PLAN
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Coates	10/25/99	AS SHOWN	7549–001
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Approved By	M.Quinlan	10/25/99		0

CAD File: 7549-001

DRYWELL CONTRUCTION DIAGRAM FOR DRY-842
NOT TO SCALE



POL
PUMP
5920

837

841

DRY-842

PROPOSED GEOPROBE LOCATION

842

N

LEGEND

- DRYWELL LOCATION
- PROPOSED GEOPROBE LOCATION
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW

NOTE: A SOIL SAMPLE WILL BE COLLECTED FROM THE BOTTOM OF THE DRYWELL UPON REMOVAL OF SLUDGE IN THE DRYWELL.

SCALE

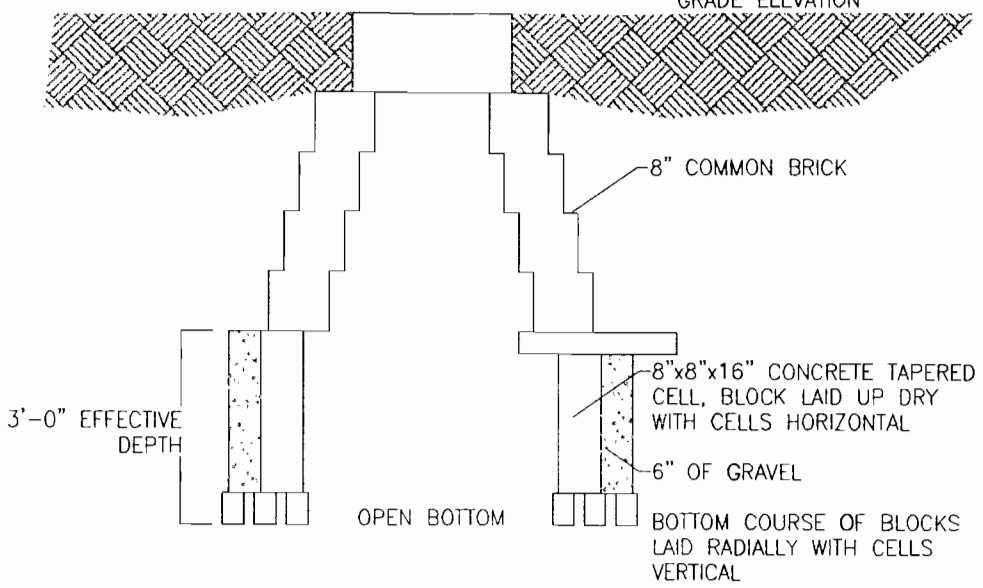
0 50 100 FEET

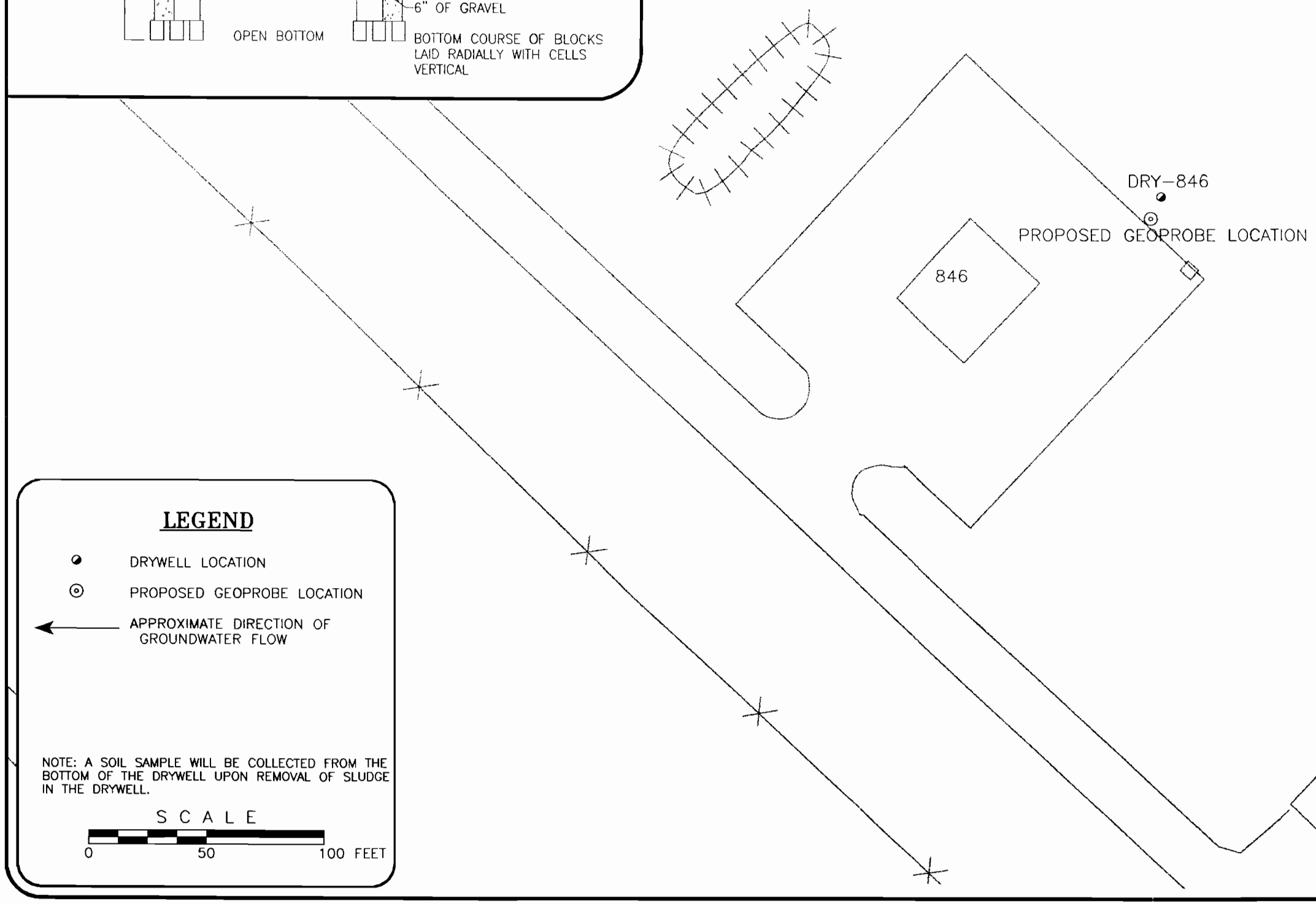
OHM Remediation Services Corp.
OHM Project No. 7549

FIGURE 1-5
DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT
DRYWELL 842 SITE PLAN
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK
PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Coates	10/25/99	AS SHOWN	7549-001
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		0

DRYWELL CONTRUCTION DIAGRAM FOR DRY-846
NOT TO SCALE







LEGEND

- DRYWELL LOCATION
- PROPOSED GEOPROBE LOCATION
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW

NOTE: A SOIL SAMPLE WILL BE COLLECTED FROM THE BOTTOM OF THE DRYWELL UPON REMOVAL OF SLUDGE IN THE DRYWELL.

SCALE

0 50 100 FEET

OHM Remediation Services Corp.

OHM Project No. 17515

FIGURE 1-6
DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT
DRYWELL 846 SITE PLAN
FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Coates	10/25/99	AS SHOWN	7549-001
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		0

CAD File: 7549-001

MACDILL ST.

224

223

219

218

214

222

215

216

255

LANGLEY RD.

WW-222

DRAIN/GRIT TRAP

250

N

LEGEND

DRAIN/GRIT TRAP

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

NOTE: GRAB SAMPLES WILL BE COLLECTED FROM EACH WALL AND FLOOR OF EXCAVATION

SCALE

0 50 100 FEET

OHM Remediation Services Corp.

OHM Project No. 17549

FIGURE 1-7

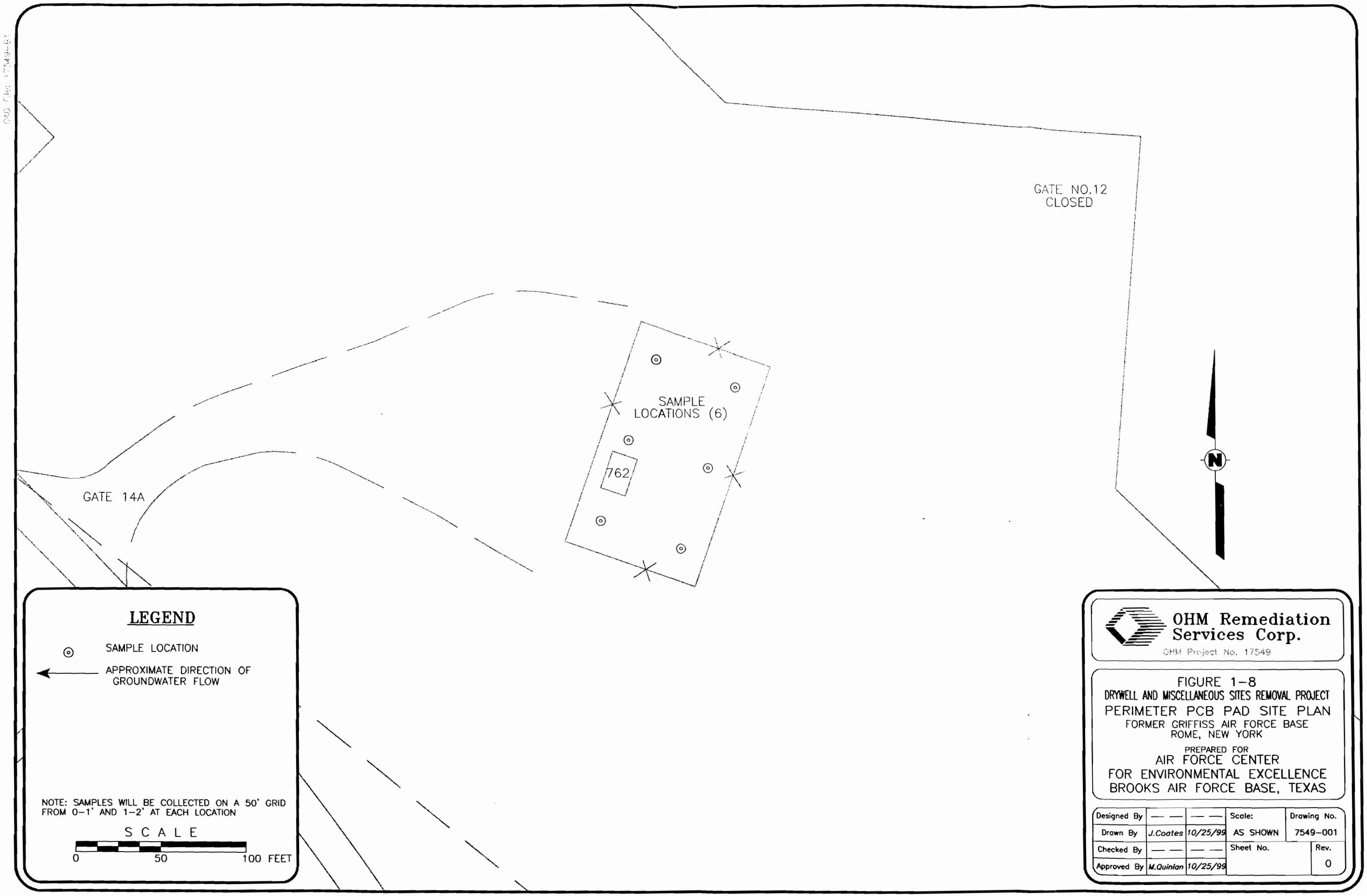
DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT

WASTEWATER SYSTEM 222 SITE PLAN

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Coates	10/25/99	AS SHOWN	7549-001
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		0



LEGEND

SAMPLE LOCATION

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

NOTE: SAMPLES WILL BE COLLECTED ON A 50' GRID FROM 0–1' AND 1–2' AT EACH LOCATION

SCALE

0 50 100 FEET

OHM Remediation Services Corp.

OHM Project No. 17549

FIGURE 1–8

DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT

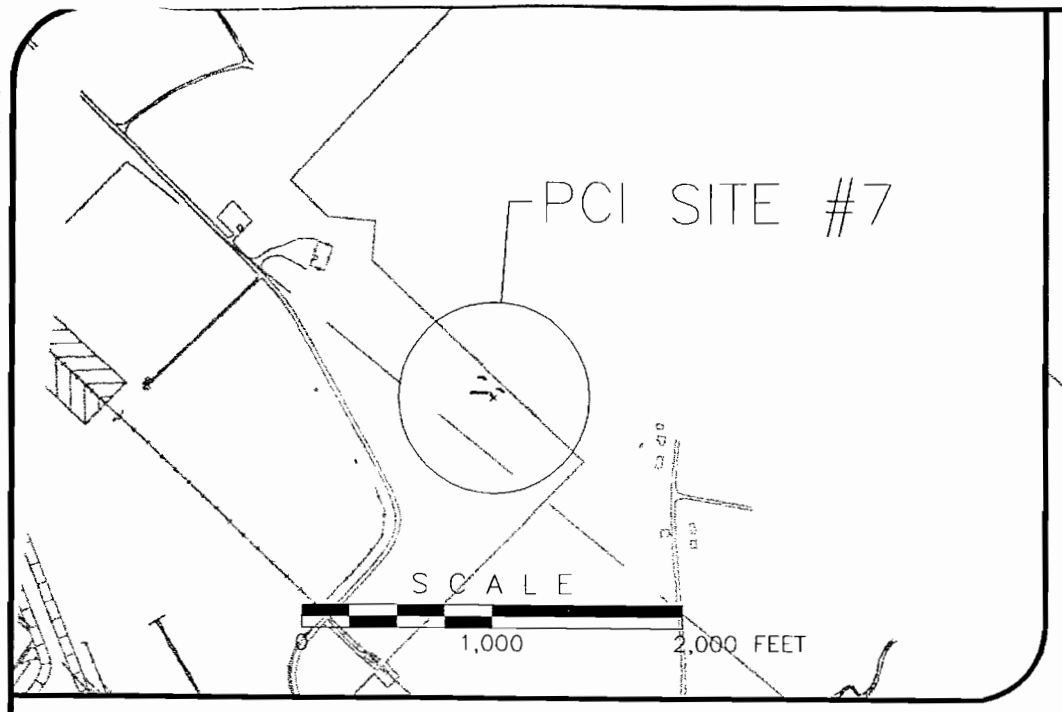
PERIMETER PCB PAD SITE PLAN

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

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Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		0

CAD File: 7549-R1



PROPERTY BOUNDARY

DRUMS

PROPOSED GEOPROBE LOCATIONS

N

LOCATION OF SURVEY POINT AT PCI SITE #7

DRUMS

PROPOSED GEOPROBE LOCATIONS

PROPERTY BOU

LEGEND

⊙ PROPOSED GEOPROBE LOCATION

NOTE: THE LOCATION OF THE DRUM CLUSTERS HAVE NOT BEEN SURVEYED AND THEREFORE MAY NOT BE ACCURATELY DEPICTED WITH RELATION TO THE SURVEY POINT.

SCALE

0 50 100 FEET

OHM Remediation Services Corp.

OHM Project No. 17549

FIGURE 1-9

DRYWELL AND MISCELLANEOUS SITES REMOVAL PROJECT

PCI SITE #7

FORMER GRIFFISS AIR FORCE BASE
ROME, NEW YORK

PREPARED FOR
AIR FORCE CENTER
FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE, TEXAS

Designed By	— —	— —	Scale:	Drawing No.
Drawn By	J.Coates	10/25/99	AS SHOWN	7549-001
Checked By	— —	— —	Sheet No.	Rev.
Approved By	M.Quinlan	10/25/99		0

JG

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

MEMORANDUM FOR Jonathan Greco
New York State Department of Environmental Conservation
Bureau of Eastern Remedial Action
50 Wolf Road
Albany, NY 12233-7010

Douglas Pocze
United States Environmental Protection Agency
Federal Facilities Section
290 Broadway, 18th Floor
New York, NY 10007-1866

RECEIVED
JAN 10 2000
ECOLOGY & ENVIRONMENT
BUFFALO

FROM AFBCA/DA – Griffiss
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Areas of Interest (AOIs) Documents

1. Attached are the following documents for your review:
   a) Response to ESI and SI Teleconference and Written Comments
   b) OTH and PCI Screening Teleconference Summary

1. If you have any questions, please contact Cathy Jerrard at 315-330-2275.

Michael F. McDermott
BRAC Environmental Coordinator

cc: Mr. Robert M. Pender, USACE, KC District
Atch: As Noted

RECEIVED
JAN 12 2000
BUREAU OF EASTERN REMEDIAL ACTION

RESPONSE TO ESI AND SI
TELECONFERENCE AND WRITTEN COMMENTS
Former Griffiss Air Force Base, Rome, New York

ESI Teleconference: October 22, 1999
PARTICIPANTS:

Name	Organization	Phone Number
Douglas Pocze	USEPA	212-637-4432
Jonathan Greco	NYSDEC	518-457-3976
Frank McStay	USACE	816-983-3564
Robert Pender	USACE	816-983-3849
Michael McDermott	AFBCA	315-330-2275
Catherine Jerrard	AFBCA	315-330-2275
Thomas Ferraro	E & E	716-684-8060
Gene Florentino	E & E	716-684-8060
Robert Meyers	E & E	716-684-8060

SI Teleconference: November 2, 1999
PARTICIPANTS:

Name	Organization	Phone Number
Douglas Pocze	USEPA	212-637-4432
Jonathan Greco	NYSDEC	518-457-3976
Barbara Moore	USACE	816-983-3364
Michael McDermott	AFBCA	315-330-2275
Catherine Jerrard	AFBCA	315-330-2275
Thomas Ferraro	E & E	716-684-8060
Gene Florentino	E & E	716-684-8060
Robert Meyers	E & E	716-684-8060

Subject: Draft Field Sampling Plan, Health and Safety Plan, and Quality Assurance Project Plan Addendum for the Expanded Site Investigation; Draft Addendum to the March 1997 Work Plan for Site Investigations of Areas of Concern; Screening of Other Miscellaneous Environmental Factors (OTHs); and Screening of Panamerican Consultants, Inc. (PCI) Sites 3 and 20.

The following summarizes teleconference discussions held on October 22 and November 2, 1999, and written comments issued by the NYSDEC (J. Greco) on October 27, 1999, and USEPA (D. Pocze) on November 1 and December 1, 1999.

ESI WORK PLAN TELECONFERENCE SUMMARY AND WRITTEN COMMENTS

General NYSDEC Teleconference Comment

1. *NYSDEC, USEPA, USACE, and AFBCA agreed that all near surface soil samples would be collected from 0" to 3" during these investigations.*

   Response- AFBCA concurs and the ESI and SI work plans will be revised accordingly.

Area of Interest (AOI) 7 – Southeast Skyline Housing/Former Base Firing Range

Teleconference Comments

1. *J. Greco stated that the five soil borings proposed within the backstop area were acceptable.*

   Response- Comment noted.

2. *J. Greco recommended that the two proposed downgradient monitoring wells be moved to within 50-feet down gradient of the backstop area.*

   Response- AFBCA concurs and the locations of the two proposed downgradient monitoring wells have been revised in the work plan (i.e., placed within 50 feet of backstop area).

3. *Both filtered and unfiltered groundwater samples for metals need to be collected and the wells should be developed aggressively to lower the turbidity.*

   Response- Filtered and unfiltered groundwater samples will be collected. Every effort will be made to develop the wells aggressively; however, based on previous experience at the base, it is likely that turbidity will stabilize at a level greater than 50 NTUs. During sample collection, E & E will perform low flow purging to achieve turbidities of less than 50 NTU.

NYSDEC Written comments

1. *It was decided that sampling for the constituents of concern should be done at regular intervals in each of the borings; i.e., 6"-1', 1'-3', & 3'-5'.*

   Response- The work plan has been revised to include sample collection from 6"-1', 2'-4', and 6'-8' for the constituents of concern in each of the five proposed soil borings.

USEPA Written comments

No written comments submitted.

AOI 102 – Lindane Spill Site

Teleconference Comments

No changes required.

NYSDEC Written Comments

No written comments submitted.

USEPA Written Comments

No written comments submitted.

AOI 431 – BIVOUAC Dump Area

Teleconference Comments

1. *J. Greco recommended adding TCLP PCB analysis for the drum sample for disposal purposes.*

   Response- PCB is not an analyte included in the TCLP test, however, the work plan has been revised to indicate that the drum sample will also be analyzed for total PCBs (SW8082) for waste disposal characterization.

NYSDEC Written Comments

No written comments submitted.

USEPA Written Comments

No written comments submitted.

AOI 469 – Building 112

Teleconference Comments

1. *Relocation of the near surface soil samples was discussed at length. It was agreed that a revised figure showing the new proposed sample locations would be faxed to all conference call participants for review.*

   Response- AFBCA concurs and near surface soil sample locations have been revised in the work plan to correspond with those presented in the facsimile which has been approved by all parties.

2. *J. Greco emphasized that near surface soil samples should be collected from either 0 to 2 inches or 0 to 3 inches below ground surface (BGS), instead of from 0 to 6-inches, in order to satisfy NYSDOH requirements.*

   Response- AFBCA concurs; see response to general NYSDEC teleconference comment number 1.

3. *J. Greco and D. Pocze requested that the 12 deeper soil samples from six locations be collected from the area around the former AST location if all near surface samples are clean.*

   Response-AFBCA does not agree to collect these samples around the AST. The AST has been closed and there are no open spill issues to resolve. However, 12 deeper soil samples from six locations will be collected. At each location, one sample will be collected from 6-12" while the other sample will be collected from 12-18". These locations will be located as follows; 1) where near surface samples show elevated levels of COPCs, or 2) if no elevated COPCs are observed, then spaced uniformly over the area, or 3) a combination of one and two.

4. *T. Ferraro asked if we needed to collect any soil samples from the water table.*

   Response- J. Greco and D. Pocze stated that if the soil is clean to a depth of 18-inches no further sampling would be required.

NYSDEC Written Comments

1. *Half of the borings require continuous sampling to groundwater for PCBs. Of these, half should be sampled from 0-2", 6"-1', 1'-3', 3'-5', etc..., while the other half should be sampled from 0"-2", 2"-2', 2'-4', etc... Other than that the new locations provided in your recent fax look good.*

   Response- AFBCA does not agree to collect deeper samples at this time. Due to no observed evidence of a release at Building 112, no soil borings greater than 18" in depth will be installed at this time.

USEPA Written Comments

1. *For AOI 469, grid spacing should be revised to ensure sampling will address all areas of the suspected site. For AOI 469, 5 or 6 additional samples should be spaced within the two horizontal rows proposed for sampling located north of the building.*

   Response- AFBCA concurs and near surface soil sample locations have been revised in the work plan to correspond with those presented in the facsimile which has been approved by all parties.

<u>OTH-305 Paint Spray Booth</u>

Teleconference Comments

1. *J. Greco and D. Pocze agreed with the proposed work for OTH-305. J. Greco asked what would be done if the floor drain discharged into a drywell. D. Pocze stated that we would reassess the site at that time.*

   Response- Comment noted.

NYSDEC Written Comments

No written comments submitted.

USEPA Written Comments

No written comments submitted.

OTH-5485-2 Trash Scatter, Dump

Teleconference Comments

1. *J. Greco stated that even if all proposed samples were clean we would still need to collect additional near surface soil samples if our goal is to never have to do additional work at this site.*

   Response- AFBCA concurs and the work plan has been revised to include collection of six near surface soil samples (i.e., from drum and chemical bottle locations etc.) for TCL VOCs, SVOCs, Pesticides, PCBs, and TAL Metals.

2. *C. Jerrard stated that she would like to add debris removal and near surface confirmatory soil sampling to this project.*

   Response- The work plan has been revised to include the collection of six near surface soil samples. Potentially contaminated debris will be segregated and placed into 55-gallon drums. Uncontaminated (based on visual inspection and field monitoring) debris will be placed into a roll-off dumpster for disposal.

3. *T. Ferraro asked approximately how many additional near surface confirmatory samples would be required. J. Greco responded that assuming only surface debris was present and no excavation was required, 10 to 15 confirmatory near surface soil samples would be sufficient.*

   Response- Robert Pender (USACE), Bob Meyers (E & E) and Gene Florentino (E & E) visited OTH-5485-2 on November 9, 1999 to re-evaluate the proposed work. Based on this visit and the size of the site, the work plan has been changed to include collection of six near surface soil samples.

4. *M. McDermott stated that he would like to first have debris removed, then perform the geophysical survey to verify that no buried debris is present, followed by confirmatory sampling.*

   Response- The order of proposed field activities at OTH-5485-2 have been changed as follows: first, near surface soil sampling will be performed (and locations staked); second, the surface debris will be removed; third, the geophysical survey will be performed; fourth, the three temporary wells will be installed.

NYSDEC Written Comments

No written comments received.

USEPA Written Comments

No written comments received.

EOD Range 2 (Area 18) – Rocket Range

Teleconference Comments

1. *D. Pocze stated that the proposed sampling grid was too large, and that we should add sample locations in the areas where UXO were found.*

   Response- AFBCA concurs and the near surface sample locations have been revised in the work plan: the new sample locations are clustered around the former berm areas (including the far western berm), and the areas where ordnance was found.

2. *2. J. Greco asked why the site is called a rocket range, (i.e., were rockets actually launched on site).*

   Response- Additional background information regarding why the site is referred to as the "Rocket Range" is not available. No reference to rockets actually being fired on site was found.

3. *T. Ferraro asked if the regulators wanted tighter sample spacing. J. Greco said yes, and concentrate samples in the main berm area.*

   Response- See response to EOD Range 2 teleconference comment 1.

3. *4. B. Pender stated that only lead, copper, and zinc are typically analyzed for at EOD sites.*

   Response- TCL SVOCs, TAL Metals, and Explosives Analyses are currently proposed for the EOD Range 2 soil samples.

4. *J. Greco summarized the discussion by stating that no grid should be used for locating the soil samples, sample locations should be clustered around the berms and UXO locations, he will look into possible contaminants at EOD ranges before settling on a list of analytical parameters, and that we may be able to cut costs by analyzing the samples for a reduced list of parameters.*

   Response- The near surface sample locations have been revised in the work plan. As shown in the fax provided to all teleconference call participants, the new sample locations are clustered around the former berm areas (including the far western berm), and the areas where ordnance was found. The AFBCA proposes analyzing all samples collected at the EOD site for TAL Metals, TCL SVOCs, and explosives.

5. *T. Ferraro stated that E & E would send an updated figure with the new proposed sample locations to all participants.*

   Response- The updated figure with the new proposed sample locations was faxed to all teleconference participants for review prior to receipt of written comments.

NYSDEC Written Comments

1. *The new sample locations look good, though coverage of each berm is necessary, despite the fact that ordnance was not found in the vicinity of each (e.g., a couple of samples should be moved to the far western berm).*

   Response- See response to EOD Range 2 teleconference comment 1.

2. *Similar to the above (i.e., AOI 469) about half the borings should be sampled at depth (since the berms were "pushed around"). This additional sampling should occur at approximately 4 foot depth.*

   Response- AFBCA concurs and the work plan has been changed to include the installation of 10 shallow (4-foot) soil borings. A subsurface soil sample will be collected from each soil boring (2'-4') and analyzed for TCL SVOCs, TAL Metals, and Explosives.

3. *It is unclear what is meant when it is stated that "explosives" are to be sampled for. Please confirm that it includes the list shown on page B-2-28 of appendix B?*

   Response- Explosives analysis (SW8330) includes all compounds listed on pages B-2-28 and 29 of appendix B.

USEPA Written Comments

1. *For EOD Range 2, grid spacing should be also be reduced to 50' between samples.*

   Response- See response to EOD Range 2 teleconference comment 1.

2. *Regarding the EOD Range 2 and UXOs in general, I refer you to an e-mail from Marsden Chen to McDermott on September 9, 1999, which requested information regarding sampling of UXO's at your facility. Information was requested regarding the type and quantity of environmental sampling, specifically focusing upon the chemical constituents of concern associated with UXO. Mr. Chen's questions should be addressed and your responses should be incorporated into the EOD Range 2 sampling plan.*

   Response- The risk associated with the possible presence of unexploded ordnance remaining on Griffiss AFB property was investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report – Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed are provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998. A summary of the results of the clearing operations is provided in table 1 below.

   Since no evidence of ordnance was found at eight of the sites, chemical sampling is not required for these areas and they have been classified as no further action.

   Area of Interest 66, Former DRMO Storage Area, was not included in the Archive Search Report. Shell casings were discovered during environmental remediation excavation. The area was cleared at that time.

   Chemical sampling has been completed at Area 26, Prime BEEF Training Area, Area of Interest 66 and Area 56, DRMO Storage Area. These three areas have also been classified as no further action.

   Chemical sampling will be performed at Area 18, EOD Range 2, in Spring 2000. USEPA and NYSDEC have submitted comments on the draft work plan for this site.

TABLE 1

Griffiss Former Munitions Sites

Clearance Performed in 1998

Area Number	Area Name	Acreage	Type of Clearance	Depth of Clearance	Future Land Use	Site Status
Area 15	Target Butt Area	3	Subsurface	4 feet	Airfield	No Ordnance Found
Area 18	EOD Range 2	6.25	Subsurface	4 feet	Vacant Land	UXO, ordnance related scrap and ammunition found and disposed of on site by explosive detonation. Sampling planned for Spring 00.
Area 19	EOD Range 3	2	Subsurface	4 feet	Airfield	No Ordnance Found
Area 20	EOD Range 4	2	Surface	Surface	Airfield	No Ordnance Found
Area 21	EOD Range 1	2.5	Subsurface	4 feet	Airfield	No Ordnance Found
Area 22	EOD Demolition Area	6	Surface	Surface	Vacant Land	No Ordnance Found
Area 26	Prime BEEF Training	5	Subsurface	4 feet	Airfield	No Ordnance Found, blank ammunition located and destroyed. Sampling performed in 1995 as AOI 431.
Area 28	Hand Grenade Area	5	Subsurface	4 feet	Vacant Land	No Ordnance Found
Area 32	Building 700 Area	2	Surface	Surface	Industrial	No Ordnance Found
Area 44	Expl Storage Vaults	Unknown	Inspection	Inspection	Airfield	No Ordnance Found
Area 56	DRMO Storage Area	5	Excavation	Up to 7 feet	Industrial	Inert UXO located and disposed of during excavation activities. Confirmatory sampling performed in 1997-1998.
* AOI 66	Former DRMO Storage Area	5	Excavation	Up to 8 feet	Industrial	Casings and inert nose fuse located and disposed of during excavation activities. Confirmatory sampling performed in 1998.

* Site Added after environmental remediation project in 1998

SI WORK PLAN TELECONFERENCE SUMMARY AND WRITTEN COMMENTS

USEPA GENERAL WRITTEN COMMENTS.

1. *Section 1.1 indicates that the purpose of this SI is to "delineate the extent of the groundwater contamination and provide enough information to evaluate risks to human health and the environment." Therefore, please perform a risk assessment for human health and the environment. I recommend the human health assessment include an unrestricted use scenario otherwise deed restrictions are required.*

   Response- The results of this investigation will be used to determine if risk assessments are warranted at these sites.

2. *The document indicates that the installation of the monitoring wells will be both upgradient and downgradient of the sites. Please note, EPA does not consider these wells to be compliance monitoring wells.*

   Response- Comment Noted.

3. *Regarding the wells, I recommend performing vertical profiling at both the TCE Contamination Area and the Weapons Storage Area. The purpose of the vertical profile wells is similar to the reason vertical profile wells were installed at Pumphouse 3 and Landfill #6, namely to investigate vertical migration of the TCE contamination. Although the bedrock at these areas, unlike Pumphouse 3 and Landfill #6, may be too shallow to evaluate different depths of groundwater, this should be determined in the field during the geoprobe investigation. If the bedrock is too shallow for vertical profiling, then other options should be discussed among AFBCA, NYSDEC and EPA.*

   Response- At AOC 9 and the On-Base GW AOC vertical profiling will be performed on the central row of Geoprobe borings; i.e., the borings in the center row (oriented north to south) as shown in Figures 3.11-11 and 3.12-1 (Sections 3.11 and 3.12) in the final work plan. Groundwater samples will be collected at five-foot depth intervals at the top of the aquifer, middle point in the aquifer, and at the top of bedrock. No samples will be collected in the bedrock.

ON-BASE GROUNDWATER AOC

Teleconference Comments.

1. *J. Greco asked the purpose of the proposed Geoprobe survey and recommended adding vertical profiling to the groundwater investigation.*

   Response- The Geoprobe survey is intended to delineate the contaminant plume, and identify areas with elevated levels of contamination within the plume, which could then be traced back to the potential source areas. The Geoprobe survey results will also be used to determine the locations for the three proposed permanent monitoring wells. Vertical profiling will be performed as outlined previously in Comment 3, USEPA General Written Comments.

2. *J. Greco, T. Ferraro, and G. Florentino discussed the technical approach for including vertical profiling in the Geoprobe survey.*

   Response- Vertical profiling will be performed as outlined previously in Comment 3, USEPA General Written Comments.

NYSDEC Written Comments

TCE Contamination:

1. *Similar to what has been observed at the Pumphouse 3 (TCE Plume) site, plumes of contamination tend to sink with distance from the source. Approximately one-third of the planned temporary wells should be vertical profiling wells in order to fully define the contamination.*

   Response- Vertical profiling of approximately one-third of the geoprobe borings will be performed as outlined previously in Comment 3, USEPA General Written Comments.

   It is not likely that this sampling effort will find any density driven sinking plumes or dense non-aqueous phase liquids (DNAPLs). Note that chlorinated ethene plumes, in this case TCE, do not "sink" unless a substantial density difference exists, which is usually evidenced by much higher concentrations (in the range of 10's of parts per million) being present in the aqueous phase plume. The concentrations observed in this area of the base are generally one to four orders of magnitude below these higher levels. A second reason that plumes may sink results from a downward vertical hydraulic gradient but this phenomenon could occur with any dissolved phase plume, not just with a DNAPL plume.

2. *Table 2-1 cites as a goal of the project the determination of the source of contamination, however, it is not clear to me how this is to be achieved by the plan. Please explain.*

   Response- TCE contamination at the site probably resulted from small spills as evidenced by the low concentration plume observed. The Geoprobe survey is intended to delineate the contaminant plume, and identify areas with elevated levels of contamination within the plume, which could then be traced back to the potential "source areas".

3. *The limiting of constituents during the temporary well stage of the investigation is understandable, however, limiting the analysis at the three permanent wells to VOCs only should be avoided. Previous sampling has raised questions regarding semi-volatiles and metals, and this is a good time to resolve those matters as well.*

   Response- Previous sampling has indicated that VOCs are the only contaminant of concern in this area.

USEPA Written Comments.

1. *Please review and include various information associated with the Spills Program specifically pertaining to cleanups and investigations which they have performed within this area. Perhaps they have information that can "shed some light" regarding the possible source of contamination.*

   Response- AFBCA is currently the best source of information regarding the Spills Program at the former GAFB. Based on a review of the known spills and cleanups which have occurred in the vicinity of the On-base Groundwater AOC (WSA) conducted by the AFBCA, E & E was unable to determine a potential source of the TCE contamination. No solvent (TCE) spills or cleanups have occurred in the On-Base Groundwater AOC (WSA) area.

2. *As a clarification, the RI did not specifically investigate the WSA.*

   Response- The work plan has been changed to clarify that a groundwater sample was collected from monitoring well LAWMW-9 (located southwest of building 817) during the Remedial Investigation.

AOC 9 (WSA LANDFILL)

Teleconference Comments.

1. *B. Moore asked how the permanent monitoring well locations would be determined.*

   Response- Based on the Geoprobe groundwater results the permanent monitoring wells would be positioned upgradient and downgradient, outside the area of contamination.

2. *J. Greco recommended trenching into the suspected source areas (i.e., former igloo locations).*

   Response- The work plan has been revised to include one day of test pit excavation at the former igloo locations and adjacent suspect source areas (i.e., geophysical anomalies and the berm separating former igloo locations). Soil samples will be collected from the zones of highest contamination (based on field screening), or from the bottom of the test pit if no readings above background are obtained.

3. *J. Greco asked why the surface water and sediment samples were going to be collected from the same locations as those previously collected during the ESI program.*

   Response- T. Ferraro and G. Florentino explained that the surface water and sediment samples are proposed at the same locations to provide a historical record of discharge for comparison with the groundwater data.

4. *J. Greco and D. Pocze recommended that the same Geoprobe survey approach be used at AOC 9 as at the On-Base Groundwater AOC.*

   Response- The work plan has been revised to include the same Geoprobe survey approach at the On-Base Groundwater AOC and AOC 9 (i.e., vertical profiling).

5. *J. Greco stated that he would like the extent of the contaminant plume south of the creek defined.*

   Response- The Geoprobe survey extends south of the creek, and based on the Geoprobe survey results, one or two additional permanent monitoring wells may be installed south of the creek.

6. *J. Greco recommended excavating test pits to delineate the boundaries of the fill area.*

   Response- One additional day of test pit excavation has been added to the work plan. The test pit excavations will begin in the areas of suspected fill material, and progress outward toward the fill boundary (based on the aerial photos of the landfill when in operation).

7. *J. Greco stated that it was not necessary to collect soil samples from the four permanent monitoring well locations, since it is unlikely the well locations will be coincident with the source area.*

   Response- AFBCA concurs and the work plan has been revised. No soil samples will be collected from the locations of the four permanent monitoring wells.

NYSDEC Written Comments.

1. *Page 3-9, Section 3.12.4: The taking of soil samples from the location of the four permanent monitoring wells should be avoided, since it is unlikely the well locations will be coincident with the source area. In place of the above, I request that trenches be excavated in the location of the former munitions storage igloos in an attempt to locate the contaminant source. Samples should be taken of the soil/waste within the trench so that the final comparison of contaminant levels to screening values will have validity.*

   Response- See response to teleconference comment 2 and 7.

2. *I am unclear as to why surface water and sediments are being resampled from the same areas already tested. Perhaps shifting the location of each sample approximately one hundred feet downgradient would yield the additional data needed to more accurately characterize the site.*

   Response- See response to AOC 9 teleconference comment 3.

3. *Several of the temporary well locations should be utilized for vertical profiling. As noted previously, even dissolved phase plumes tend to "sink", making it is impossible to truly define the contamination at this site with shallow monitoring points alone.*

   Response- The work plan has been revised to indicate that the first row (extending from upgradient to downgradient) of Geoprobe locations will be vertically profiled (i.e., install a shallow, intermediate, and deep [to bedrock] Geoprobe boring at each proposed location), and install the remaining Geoprobe borings within the zone of highest contamination detected during the vertical profiling. The vertical profile groundwater samples will be collected at five-foot depth intervals if a sufficient water column is available.

4. *Since a likely scenario for this site is that it will follow the path of the five other landfills already addressed by the RI (i.e., the implementation of a presumptive remedy such as capping), the clear delineation of site boundaries should be included as an objective of the work planned. The best way to achieve the goal is through the placement of test trenches along the periphery of the site.*

   Response- See response to AOC 9 teleconference comment 6.

5. *Since this site is an AOC, provisions should be made to perform a baseline human health risk assessment, as well as an appropriately detailed environmental risk assessment.*

   Response- See response to USEPA general written comment 1.

USEPA Written Comments.

1. *You recommend taking additional samples of the surface water and sediment at Sixmile Creek in the same locations as previously sampled. Although additional information is always helpful, perhaps the samples could be moved several feet from the previous location to obtain additional information along the stream or additional seeps, should they exist, could be sampled. Please note that contamination has already been shown to exist along the stream in the form of seeps originating from the WSA. Re-sampling identical locations will not negate the previous sampling results.*

   Response- See response to AOC 9 teleconference comment 3.

OTH AND PCI SCREENING TELECONFERENCE SUMMARY

Other Miscellaneous Environmental Factor Sites

OTH-013

1. *D. Pocze asked why this site is recommended for NFS, and if the permit has been properly closed.*

   Response- G. Florentino stated that this site is NFS because the incinerator is inactive, and the base does not plan to use it in the future.

2. *J. Greco stated that the AFBCA needs to determine the status of all incinerator OTH's permits.*

   Response- AFBCA contacted Mr. C. Randy Vaas, Regional Permit Administrator for the New York State Department of Environmental Conservation. Mr. Vaas stated that formerly utilized incinerators at the Griffiss AFB are considered closed based on the expiration or recent surrender of air emissions permits associated with the incinerators. Closure sampling of the incinerator sites/facilities for the closure of air emissions permits is not required. The above information was received from the AFBCA in a Memorandum For Record dated October 25, 1999.

OTH-115

1. *J. Greco asked who was handling this site, and why it is NFS.*

   Response- C. Jerrard and G. Florentino confirmed that NFS was recommended for this site, under the Group 3 AOI program (AOI 78).

2. *J. Greco asked if a waste solvent tank was found during the demolition of Building 115, and if so, that the information be included in the justification for NFS.*

   Response- C. Jerrard stated that she would find out if a waste tank was observed during the demolition of Building 115 and that the information would add to the justification section for OTH-115.

OTH-211

1. *J. Greco and D. Pocze asked what program OTH-211 will be covered under, and who would be the governing regulatory agencies.*

   Response- C. Jerrard and M. McDermott stated that OTH-211 would be covered under an AFCEE removal, still be considered an AOI, and still be overseen by the EPA and NYSDEC.

2. *D. Pocze stated that he would like the name of the program covering OTH-211 (i.e., Covered under AFCEE removal) added to the justification section of the OTH Screening table.*

   Response- AFBCA concurs and the requested information will be included in the OTH Screening table.

3. *D. Pocze and J. Greco requested that for all sites listed as COP (covered under other program), the name of the program the site is covered under be added to the justification column on the OTH Screening table.*

   Response- The program names will be added to the justification column for all sites listed as COP.

OTH-222-3

1. *J. Greco commented that he believes this site was sampled and found to be clean during the RI, and that there is a letter report that B. Moore (USACE) is aware of which he would like included in the justification.*

   Response- A review of the existing reports, including the RI was conducted by E & E, however, no record of sampling at OTH-222-3 was found. USACE cannot locate additional letter reports for this site.

OTH-510

1. *J. Greco would like the same information for this incinerator site as will be provided for OTH-013.*

   Response- See response to OTH-013 teleconference comment 2.

OTH-661

1. *D. Pocze stated that the trash on site should be removed, and confirmatory sampling should be performed to facilitate property transfer if the base wants unrestricted use.*

   Response- T. Ferraro and G. Florentino questioned the need for confirmatory sampling of household trash, and C. Jerrard stated that she would get back to D. Pocze about this issue. In addition, Robert Pender (USACE), Bob Meyers (E & E) and Gene Florentino (E & E) visited OTH-661 on November 9, 1999 to evaluate the proposed work. No evidence of a release to the environmental was observed.

2. *D. Pocze concluded by stating that he believed 3 near surface soil samples and 3 subsurface soil samples collected at the groundwater interface would be sufficient.*

   Response- No evidence of a release to the environmental was observed. However, OTH-661 has been added to the ESI program as requested. The work plan will be revised to include; collection of five confirmatory near surface soil samples; debris removal; and a geophysical survey if warranted.

OTH-829

1. *D. Pocze asked why we were investigating OTH-305, but not OTH-829 (both spray paint booths).*

   Response- B. Meyers stated that OTH-305 reportedly had a floor drain inside the paint booth, and the booth area was oversprayed with paint. OTH-829 was reportedly clean and did not have a floor drain inside the paint spray booth. C. Jerrard stated that DRY-829 was investigated, and that there were floor drains inside the building, which may have been sealed.

2. *D. Pocze and J. Greco stated that they would like verification of the presence or absence of a floor drain in side the paint booth.*

   Response- E & E visited Building 829 on November 9, 1999 and confirmed that the former paint spray booth was clean and does not contain a floor drain. In addition, a sealed (filled with concrete) floor drain was found in a small support room off the main hallway within building 829.

OTH-5245

1. *D. Pocze stated that he wanted to make certain that the entire area was sampled.*

   Response- C. Jerrard stated that the entire area had been sampled and the subsequent removal action was based on the analytical results.

OTH-5400-1 and OTH-5400-2

1. *J. Greco requested that the fact Lot 11 (present on a portion of the site) was closed under a RCRA permit and this be added to the justification.*

   Response- The justification will be modified to add that Lot 11 (present on a portion of the site) was closed under a RCRA permit. C. Jerrard stated that these sites were covered under AOIs 16/193, and that only Lot 11 was closed under RCRA permit.

OTH-6024

1. *J. Greco requested we add the IRP number SS-45 (Industrial Soils Pad) to the justification.*

   Response- AFBCA concurs, IRP number SS-45 (industrial Soils Pad) will be added to the justification.

GENERAL OTH AND PCI COMMENT

1. *J. Greco and D. Pocze requested a list of the AFCEE removal sites.*

   Response- C. Jerrard stated she would provide the requested list.

PCI SITES 3 AND 20

All parties discussed the physical characteristics and debris observed at the PCI sites.

PCI Site 3

No change to screening table required.

PCI Site20

1. *D. Pocze stated that the trash on site should be removed, and confirmatory sampling should be performed.*

   Response- Robert Pender (USACE), Bob Meyers (E & E) and Gene Florentino (E & E) visited PCI Site 20 on November 9, 1999 to evaluate the proposed work. No evidence of a release to the environmental was observed. However, PCI site 20 has been added to the ESI program. The work plan will be revised to include; collection of five confirmatory near surface soil samples; debris removal; and a geophysical survey if warranted.

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

FILE COPY

John P. Cahill
Commissioner

January 5, 2000

Mr. Michael F. McDermott
BRAC Environmental Coordinator
AFBCA/OL-X
153 Brooks Road
Griffiss AFB, NY 13441-4105

Dear Mr. McDermott:

Re: Finding of Suitability to Lease (FOSL),
Bldg. 782; Griffiss Air Force Base (ID No. 633006)

I have reviewed the referenced document and request clarification in the final version to indicate that the Lessee will be responsible for obtaining **all** environmental permits and approvals applicable to the operations ultimately conducted at the property. Such permits may include those specified in the FOSL (e.g., waste water discharge permits, hazardous waste storage permits, etc.), as well as those which were not addressed (e.g., air discharge permits, SPDES permits, etc.). Other comments are:

1. Section 5.3.3 does not restrict the use of the existing oil/water separator. Does the Lessee plan on using this feature of the site? If so, please be sure that all necessary permits are obtained.

2. Attachment 3 indicates a possible negative impact upon air quality. What is this based upon?

Please contact me at (518) 457-0549 if you would like to discuss this matter.

Sincerely,

Jonathan Greco
Project Manager
Division of Environmental Remediation

C: R. Wing/D. Pocze, USEPA-Region II
H. Hamel, NYSDOH-Syracuse
S. Dimeo
M. Chen
D. Swerdowski/R. Vaas
S. Ervolina

DEPARTMENT OF THE AIR FORCE
AIR FORCE BASE CONVERSION AGENCY

03 JAN 2000

MEMORANDUM FOR Mr. Doug Pocze
USEPA Region II
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

Mr. Sal Ervolina, Director/
Mr. Jonathan Greco, Project Manager
New York State Department of
Environmental Conservation
Bureau of Eastern Remedial Action
Division of Hazardous Waste Remediation
50 Wolf Road
Albany NY 12233-7010

FROM: AFBCA/DA-Griffiss
Environmental Section
153 Brooks Road
Rome, NY 13441-4105

SUBJECT: Lease Application – Building 782

1. AFBCA/DA-Griffiss has prepared the attached draft FOSL (Finding of Suitability to Lease) for Building 782. In support of the subject lease applications, we request that your organization review the attached draft FOSL and provide written review comments to this office within ten working days from the time you receive this package.

2. If you have any questions on the draft FOSL, please contact Michael Wojnas, (315) 330-2275.

MICHAEL F. MCDERMOTT
BRAC Environmental Coordinator

Attachment:
Draft FOSL, B/782

cc: AFBCA/DA (Ms. Lynn Hancsak)

AFBCA/DA - GRIFFISS

FINDING OF SUITABILITY TO LEASE

BUILDING 782

January 2000

FINDING OF SUITABILITY TO LEASE (FOSL)
BUILDING 782
GRIFFISS AIR FORCE BASE (AFB), NEW YORK

1. PURPOSE

1.1 The purpose of this Finding of Suitability to Lease (FOSL) is to document environmentally-related findings and the suitability to Lease property at Griffiss Air Force Base (AFB), New York, to the Griffiss Local Development Corporation (GLDC). The property is described in Section 2 below. The property will be leased to the GLDC on an interim basis for the term of one year, with four additional options to renew with a term of one year each. The GLDC will sublease the property to a private business for use as a manufacturing facility for professional modular buildings.

1.2 This FOSL is a result of an analysis of information contained in the following documents: (1) Final Environmental Impact Statement (FEIS) for the Disposal and Reuse of Griffiss Air Force Base, New York, November 1995; (2) Final Supplemental Environmental Impact Statement (FSEIS) for the Disposal and Reuse of Airfield at Griffiss Air Force Base, New York, September 1999; (3) Basewide Environmental Baseline Survey (EBS) for Griffiss Air Force Base, New York, September 1994; (4) Basewide Environmental Baseline Survey Update, March 1997; (5) Draft Final Remedial Investigations (RI) Report dated December 1996; (6) Griffiss Area of Interest (AOI) Reports dated November 1996 (Group 1), May 1997 (Group 2 and 3) and July 1998 (Expanded Site Investigation); (7) Unexploded Ordnance (UXO) Archives Search Report - Recommendations and Findings, dated November 1997; (8) Final BRAC Removal Actions (UXO) Report, dated October 30, 1998; (9) 1993 Inventory of Rare Plant Species and Significant Natural Communities at Griffiss AFB, dated January 25, 1994; (10) Phase II Archaeological Investigations of 20 Sites at Griffiss AFB, dated April 1997; and (11) a Visual Site Inspection (VSI) conducted in December 1999. A Visual Site Inspection (VSI) form describing information gathered during the VSI is included as Attachment 1 to this document.

2. PROPERTY DESCRIPTION

The property to be leased is shown on the map (Attachment 2) and consists of a total of approximately 9.57 acres. The property includes Building 782 (28,251 SF), the concrete paved area to the southeast and the grassed area located to the northwest of the nosedocks.

3. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) COMPLIANCE

The environmental impacts of this proposal have been adequately analyzed and disclosed in compliance with NEPA. These impacts are analyzed in the FEIS for the Disposal and Reuse of Griffiss Air Force Base and the FSEIS for the Disposal and Reuse of Airfield at Griffiss Air Force Base, New York and are Categorically Excluded from further analysis as described in CATEX #A2.3.11 and documented on the attached USAF Form 813 (Attachment 3). Based on this analysis, the environmental impacts of proceeding with the Lease are not sufficiently adverse to human health and the environment to out-weigh the other advantages to the community and the public interest of this Lease and to prevent the leasing of the property.

4. ENVIRONMENTAL CONDITION OF THE PROPERTY

Based on a review of the Basewide EBS and a VSI of the property, Building 782 and surrounding pavements are considered Department of Defense Environmental Condition Category 7. Category 7 areas are areas that are not evaluated or require additional evaluation.

The United States Environmental Protection Agency (USEPA) has concurred that further investigations are required.

5. LEASE RESTRICTIONS AND NOTIFICATIONS

The environmental documents listed in Section 1.2 were evaluated to identify environmental factors which require specific restrictions under the Lease, to preclude threat to human health or the environment, or require notifications to the Lessee. The factors that require either Lease restrictions or notifications are identified in Attachment 4 and are discussed below.

5.1 Hazardous Substances Notification

Past activities on the property included the storage of hazardous substances and wastes at the satellite accumulation point (STW-782) located inside Building 782, as part of aircraft maintenance activities. The site has been sampled, remediated, and resampled to confirm closure of this site. This work was performed under project JREZ 95-0036, Assess/Close Hazardous Waste/Material Storage Areas. The draft final closure report was forwarded to the New York State Department of Environmental Conservation (NYSDEC) for concurrence on January 9, 1998. Comments were received from the NYSDEC on February 12, 1998, and the response to comments was forwarded to the NYSDEC on February 27, 1998. Final closure of the sites was approved by the NYSDEC on August 11, 1999.

A list of hazardous substances known to be stored on the property for a period of one (1) year or more is provided in Attachment 5, Notice of Hazardous Substances Stored and a listing of hazardous wastes known to be stored at the accumulation point is provided in Attachment 6, Notice of Hazardous Waste Stored. A hazardous substance/waste notice will be given in lease documents of the type and quantity of hazardous substances/waste and the time at which storage for one (1) year or more took place.

The Lessee will be advised through Lease documents of the location of the satellite storage area. The United States Air Force (USAF) will not allow the Lessee to operate the former hazardous waste accumulation point. The USAF will allow the Lessee to operate new hazardous waste accumulation points that comply with Federal, State and local environmental regulations on a case-by-case basis, subject to written approval from the USAF and NYSDEC. The Lessee will be responsible for obtaining any required permits for operating such accumulation points.

5.2 Installation Restoration Program (IRP) Sites and Areas of Interest (AOI)

The USAF, USEPA, and NYSDEC entered into a Federal Facility Agreement (FFA) effective August 21, 1990, under Section 120 of CERCLA.

5.2.1 Subject Property

There are three (3) Area Of Concern (AOC) sites located within the subject property.

AOC/IRP Site ID	Site Name
SD-41	Bldg 782, Nose Docks 1 & 2
SS-46	Glycol Use/Storage Areas
SD-52	On Base Groundwater

SD-41, Building 782 (Nose Docks 1 & 2) is an AOC that is located adjacent to Buildings 782 and 783, between Aprons 1 and 2. The site consists of two areas of contaminated soil, associated with releases from an oil/water separator (OWS) located near the northeastern corner of Building 782, and the second comprising the location of a soil fire that occurred during trenching operations between the Nose Docks and Apron 1. Stained soil has been excavated in the past to a depth of 2 feet; however, contamination below this level is known to exist. The draft final Remedial Investigations (RI) report issued in December 1996 recommended removal of the OWS and contaminated soils, investigation of the source of contamination in the vicinity of the trench fire along the southern edge of Apron 1, and the evaluation of remedial alternatives for the remediation of contaminated soils and groundwater in the area. The RI report also recommended delineation of petroleum hydrocarbon contamination in the groundwater at the site. Additional investigations are presently being performed under project JREZ97-6003, Remedial Action for Former Underground Storage Tanks (USTs) sites.

SS-46, Glycol Use and Storage Area, is an AOC that was recommended for no further action in the Draft Final RI report dated December 1996. This AOC is primarily associated with glycol spills in the vicinity of Apron 2. Regulator concurrence has not been obtained.

At **SD-52, On Base Groundwater Contamination**, the groundwater on the property was investigated and analytical results are presented in the Draft Final RI report dated December 1996. The draft RI report indicated that no release, disposal, or migration of hazardous substances or petroleum products has occurred into the groundwater at the property with the exception of the petroleum hydrocarbon plume associated with site SD-41.

All AOIs on the subject property have been classified as Covered Under Other Programs or No Further Study.

The USAF has evaluated the risks associated with these sites and has determined that this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

The Lessee will be advised through the Lease documents of the locations of past, possible, and future remedial actions/investigations. The Lessee will be required under the Lease to comply with the provisions of any health and safety plans in effect under the IRP. The health and safety plans will incorporate Occupational Safety and Health Administration (OSHA) requirements. The Lessee will be restricted from conducting any type of excavation, digging, drilling,

utilization of groundwater, or other ground disturbing activity on the property without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF and regulatory agencies unrestricted access to the property to conduct necessary investigation and/or cleanup activities.

5.2.2 Adjacent IRP Sites and AOCs

There are three (3) Area Of Concern (AOC) or Installation Restoration Program (IRP) sites located on adjacent property that may impact the property.

AOC/IRP Site ID	Site Name
SD-32	Six Mile Creek and WSA Lagoon
SS-34	Building 786 (Nose Dock #5) - Soil Contamination
ST-37	Building 771, Pumphouse 5

SD-32, Six Mile Creek and WSA Lagoon, is an AOC located north of the runway. The Air Force recommended in its Draft Final Remedial Investigations (RI) report dated December 1996 that a feasibility study be performed to evaluate potential remedial actions required to mitigate chemicals of concern in the surface water and sediments. The draft Feasibility Study (FS) was issued in January 1999. USEPA comments on the draft FS were received on April 8, 1999 and comments were received from the NYSDEC on April 9, 1999.

SS-34, Building 786 (Nose Dock #5) - Soil Contamination, is an AOC. Liquids used in the area included oil, solvents, and fuels. An aboveground storage tank (AST) for storage of liquid wastes was formerly located on the east side of Building 786. In 1990, the AST and the surrounding contaminated soil were removed and the tank was replaced with three underground storage tanks (USTs). The draft final Remedial Investigation (RI) report issued in December 1996 recommended no further action for soils, delineation of petroleum hydrocarbon groundwater contamination, and delineation of chlorinated solvent contamination as part of an operable unit under On-Base Groundwater Contamination AOC. Additional contaminated surface soil will be removed in 2000 in the immediate area of the former AST. Petroleum contaminated subsurface soils and groundwater require further investigation that will be performed under project number JREZ97-6042B.

ST-37, Building 771, Pumphouse 5, is a Source Removal Site. Construction of the Industrial Access Road has occurred adjacent to the Pumphouse 5 site. A source removal action has been completed at Pumphouse 5. Residual contamination in the soil and groundwater is being addressed under funded project JREZ96-0021, Close Pumphouse 5.

The USAF has evaluated the risks associated with these sites and has determined that this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental restoration process.

The Lessee will be advised through the Lease documents of the locations of past, possible, and future remedial actions/investigations. The Lessee will be required under the Lease to comply

with the provisions of any health and safety plans in effect under the IRP. The health and safety plans will incorporate Occupational Safety and Health Administration (OSHA) requirements. The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity on the property without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF and regulatory agencies unrestricted access to the property to conduct necessary investigation and/or cleanup activities.

5.3 Petroleum Storage and Distribution Facilities

5.3.1 Underground and Aboveground Storage Tanks (USTs and ASTs)

There are two (2) UST sites and one (1) former UST site on the property.

Table 5.3.1
Storage Tanks

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-5730-1 Waste Oil	2,000	Northwest of B/782 Associated with OWS-5730-1 (SD-41)	9413416 Open	Removed 1994 920077	1994
UST-5730-2 Waste Oil	2,000	Northwest of B/782 Associated with OWS-5730-2 (SD-41)	9413416 Open	Closed in Place Invest 960020	1997
UST-8005 JP4/8, Type III Fuel System	4,000	East of B/782	None	Closed in Place	1999

* Based on correspondence dated October 1, 1997, from the NYSDEC, all tanks listed as closed on the above table have been removed from the Griffiss AFB Major Oil Storage Facility license.

The USAF has evaluated the risks associated with these sites and has determined that since the remaining petroleum contamination is subsurface, this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental compliance restoration process.

The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the UST sites listed above without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF, NYSDEC and their representatives unrestricted access to the sites to conduct investigations, cleanup or removal activities.

5.3.2 Petroleum, Oil and Lubricant Systems (POL)

There are three (3) abandoned in place and closed underground fuel lines sites on the property.

Table 5.3.2
Hydrant Fueling and Pipeline Systems

POL Number	Location	Releases/ Spill Number /Status	POL Status/Removal Project Number	POL Closure Date
POL-772-2	Type III System, refuel/defuel loop east & west sides of Apron 2	9713631 associated with Apron 2 - Open	Deactivated 1995. Cleaned & sampled under 95-7050	1995
POL-773-2	Runs north and south just east of Apron 1 and supplied the refueling pits for Easy Row, Apron 1	9707954 associated with Apron 1 Open	Deactivated 1993. Cleaned & sampled under 95-0038 Further investigations under 97-6003	1996
POL-781-2	Runs north and south just east of Apron 2 and supplied the refueling pits for Baker Row, Apron 2	9608239 closed 10/2/96 9713631 associated with Apron 2 Open	Deactivated 1993. Cleaned & sampled under 95-0038 Further investigations under 97-6003	1996

The USAF has evaluated the risks associated with these sites and has determined that since the remaining petroleum contamination is subsurface, this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental compliance restoration process.

The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the POL sites listed above without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF, NYSDEC and their representatives unrestricted access to the sites to conduct investigations, cleanup or removal activities.

5.3.3 Oil/Water Separators (OWSs)

There is one (1) OWS site and one (1) former OWS site located on the property.

Table 5.3.3
Oil/Water Separators

OWS Number	Location	Releases/ Spill Number /Status	OWS Status	OWS Closure Date
OWS-5730-1	Northwest of B/782	9413416 Open	Removed 1995/ under 92-0077 Further investigations under 96-0020	IRP Site SD-41
OWS-5730-2	Northwest of B/782 Replaced OWS-5730-1 Same location	9413416 Open	Closed in Place Further investigations under 96-0020	IRP Site SD-41

The USAF has evaluated the risks associated with this site and has determined that since the remaining petroleum contamination is subsurface, this property can be used pursuant to the proposed lease, with the specified use restrictions identified below, with acceptable risk to human health or the environment, and without interference with the environmental compliance restoration process.

The Lessee will be restricted from conducting any type of excavation, digging, drilling, utilization of groundwater, or other ground disturbing activity at the OWS site listed above without prior written USAF approval and USAF coordination with applicable federal and state regulatory agencies as necessary. Provisions will also be placed in the Lease to allow the USAF, NYSDEC, and their representatives unrestricted access to the site to conduct investigations, cleanup or removal activities.

5.4 Asbestos Containing Material (ACM)

ACM was identified in Building 782. The asbestos observed during the VSI (Attachment 1) generally appeared in good condition with the exception of minor damage (not friable) to a few pipe insulation elbows and runs as noted in the VSI report. An asbestos abatement project was performed in June 1999 consisting of the repair of 6 LF of pipe insulation. The Lessee will be advised through lease documents of the presence, location, and condition of the ACM. The Lease will require the Lessee to monitor the condition of the existing ACM and comply with all applicable laws and regulations relating to asbestos. The Lease will require the Lessee to remove or remediate any ACM that during the period of the lease becomes damaged or deteriorated. The Lease will also require the Lessee to submit an appropriate asbestos disposal plan to the Air Force for approval prior to conducting any remediation activities.

5.5 Lead-Based Paint (LBP)

LBP may be present in Building 782. The condition of possible LBP is noted in the VSI for the building (Attachment 1). The Air Force has classified this facility as a facility with a probability of having a LBP hazard because it was constructed prior to 1978 when the maximum allowable content of lead in paint was reduced. The Leasee will restrict construction, alteration, or modification (to include paint stripping or sanding) without prior testing of the paint and notification of and approval by the USAF prior to the initiation of the activity. The Leasee will

be responsible through the Lease for ensuring that any LBP is maintained in good condition and for managing all LBP and potential LBP in compliance with all applicable laws and regulations.

5.6 Sanitary Sewer Systems (Wastewater)

Building 782 is connected to a sanitary sewer. The Lease will require the Leasee to submit appropriate applications for discharging of any generated sanitary waste to the sanitary sewer system prior to the beginning of the Lease and to meet all applicable wastewater discharge permit standards.

5.7 Hazardous Waste Management (by Leasee)

The Leasee is anticipated to operate 90-day satellite accumulation points to manage hazardous waste on the property to be leased for the production of professional modular buildings.

The Leasee will be required through the Lease to comply with all applicable laws and regulations pertaining to the use, treatment, storage, disposal, and transportation of hazardous materials/wastes. The Leasee will be required to have an approved plan for responding to hazardous waste, fuel, or other chemical spills prior to commencement of operations on the leased property. Furthermore, the Leasee will be required to construct and operate any necessary hazardous material/waste storage facilities and obtain all required permits.

5.8 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property to be leased has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven munitions related sites are identified to be present within the property to be leased. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property to be leased.

All ground disturbing activities performed by the leasee shall be performed in a manner such that the identification of ordnance related material might occur. Upon discovery of any suspected ordnance related material the appropriate authorities shall be notified.

5.9 Historic Property

The draft Historic Structures Survey dated October 1995 was issued for review and revised on July 14, 1998. Comments on the revised draft were received from the NY State Office of Parks,

Recreation and Historic Preservation on September 9, 1998. Based on the comments received, Building 782 has been released from consideration.

6. REGULATOR COORDINATION

Consolidated draft documents were provided on January 3, 2000 for formal review and comment. Regulator comments (Attachment 7) were received from the USEPA on ******* and from the NYSDEC on ****** and were incorporated or addressed in the document. A draft final FOSL was provided for final coordination on ******. The regulators concurred that their comments have been accurately addressed.

7. UNRESOLVED REGULATOR COMMENTS

All comments provided by the regulators were addressed and/or incorporated in this document. There were no unresolved comments.

8. FINDING OF SUITABILITY TO LEASE

Based on the foregoing information and analysis, I find this property is suitable to Lease and that environmental conditions do not present an unacceptable risk to human health or the environment, subject to the lease containing appropriate restrictions on the activities of future recipients as addressed above.

Date

ALBERT F. LOWAS, JR.
Director
Air Force Base Conversion Agency

Attachments:
1. Visual Site Inspection Form
2. Property Map
3. Air Force Standard Form 813
4. Environmental Factors Considered
5. Notice of Hazardous Substances Stored
6. Notice of Hazardous Waste Stored
7. Regulator Comments
8. Air Force Response to Comments

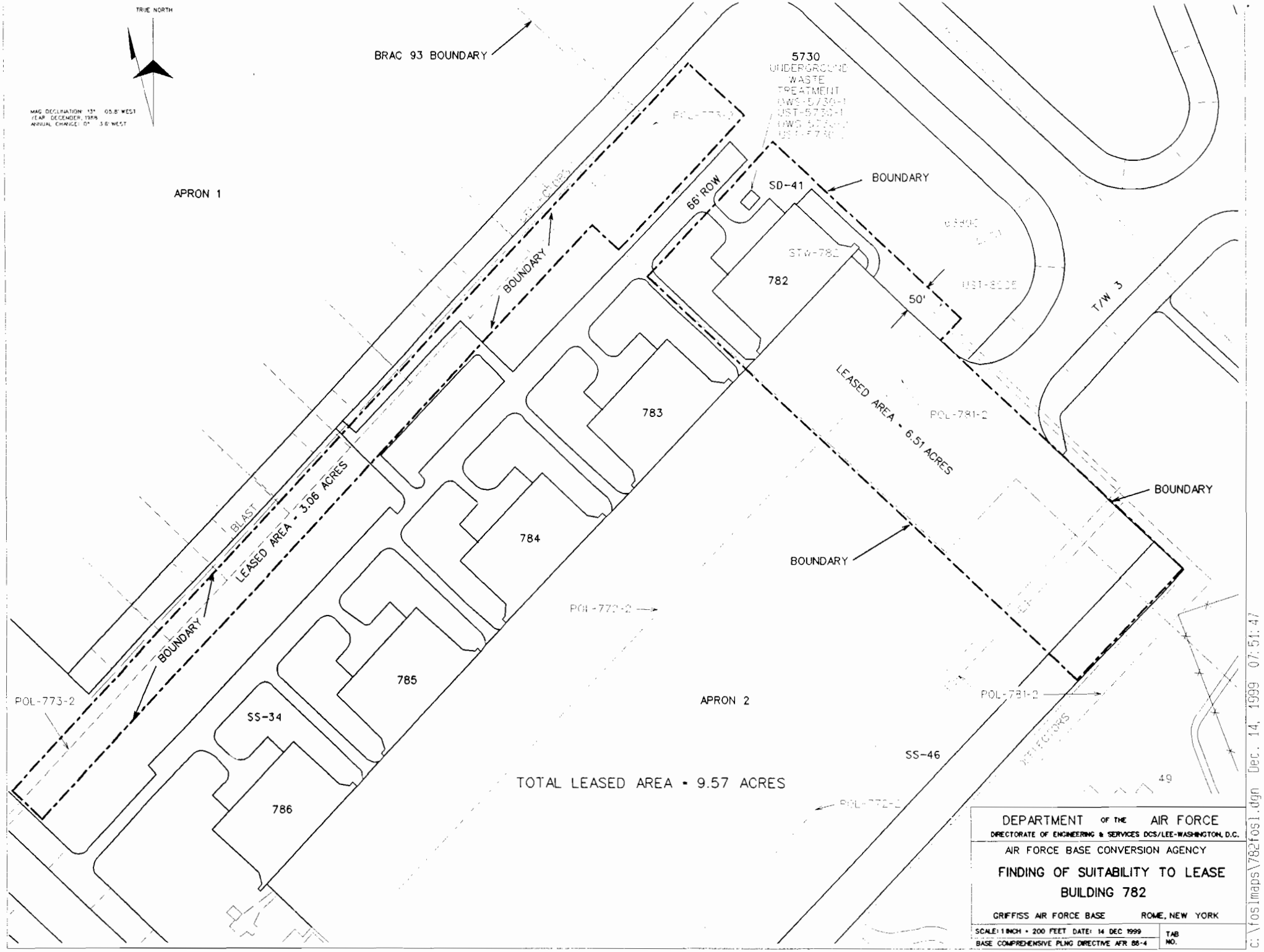
Attachment 1

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 782
VISUAL SITE INSPECTION FORM

GRIFFISS AFB FACILITY INSPECTION		**Date:** December 1999
Facility #: Building 782	**Construction Year:** 1959	**Sq. Ft.:** 28,251
Inspected By: John Decharo/Michael Wojnas, AFBCA/DA - GRIFFISS		
Facilities Current Function: Vacant		
Prior Facility Use: Fuel Systems Maintenance Dock		
Point of Contact: AFBCA/DA - GRIFFISS		
Known Features: Underground Storage Tanks: UST-5730-1 (removed), UST-5730-2 (closed in place) UST-8005 (closed in place) Aboveground Storage Tanks: None Oil/Water Separators: OWS-5730-1 (removed), OWS-5730-2 (closed in place) Septic Tank Systems: None Drywells: None Other Features: None		
Hazardous Material Storage Facility: Bench Stock: None Flammable Locker: None Storeroom: None Other: None		
Hazardous Waste Storage Areas: HWAP: No SAP: STW-782 WPP: No Other: None		
Exterior Inspection: Conex box located north of building is empty. Debris located behind blast deflectors east side of Apron 2. Broken grate covers center drains for Apron 2.		
Interior Inspection: Pipe & equipment insulation in good condition. Minor fraying of fiberglass pipe insulation. Main side areas – peeling floor paint. Peeling paint north wall of office located off the north side area.		
Comments: None		

Attachment 2

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 782
PROPERTY MAP


TRUE NORTH
MAG DECLINATION: 13° 05.8' WEST
(EAR DECEMBER, 1998
ANNUAL CHANGE: 0° 3.6' WEST
BRAC 93 BOUNDARY
APRON 1
5730
UNDERGROUND
WASTE
TREATMENT
SD-41
BOUNDARY
66' ROW
782
50'
T/W 3
783
784
785
786
SS-34
SS-46
LEASED AREA - 3.06 ACRES
LEASED AREA - 6.51 ACRES
BLAST
BOUNDARY
POL-773-2
POL-781-2
APRON 2
TOTAL LEASED AREA - 9.57 ACRES
DEPARTMENT OF THE AIR FORCE
DIRECTORATE OF ENGINEERING & SERVICES DCS/LEE-WASHINGTON, D.C.
AIR FORCE BASE CONVERSION AGENCY
FINDING OF SUITABILITY TO LEASE
BUILDING 782
GRIFFISS AIR FORCE BASE ROME, NEW YORK
SCALE: 1 INCH = 200 FEET DATE: 14 DEC 1999
BASE COMPREHENSIVE PLNG DIRECTIVE AFR 88-4
TAB NO.
c:\fosimaps\782fosi.dgn Dec. 14, 1999 07:51:47

Attachment 3

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 782
AF FORM 813

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol
RCS:

INSTRUCTIONS: *Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I - PROPONENT INFORMATION

1. TO *(Environmental Planning Function)*	2. FROM *(Proponent organization and functional address symbol)*	2a. TELEPHONE NO.
AFBCA/DA - Griffiss Environmental	AFBCA/DA - Griffiss Real Estate	315-330-2275

3. TITLE OF PROPOSED ACTION
Lease Building 782 (Nosedock 1) to the Griffiss Local Development Company (GLDC).

4. PURPOSE AND NEED FOR ACTION *(Identify decision to be made and need date)*
The GLDC requests a lease for Building 782 for sublease to a private contractor.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES *(DOPAA) (Provide sufficient details for evaluation of the total action.)*
To be used by a professional modular building manufacturing facility.

6. PROPONENT APPROVAL *(Name and Grade)*	6a. SIGNATURE	6b. DATE
Anna L. Lemaire, GM - 13	Anna L Lemaire	2/3/00

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. *(Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U= unknown effect)*	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*			X	
9. WATER RESOURCES *(Quality, quantity, source, etc.)*		X		
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity-distance, etc.)*		X		
11. HAZARDOUS MATERIALS/WASTE *(Use/storage/generation, solid waste, etc.)*		X		
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, flora, fauna, etc.)*		X		
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)*		X		
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*	X			
16. OTHER *(Potential impacts not addressed above.)*		X		

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17. [X] PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # A2.3.11 ; OR
[ ] PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS
These impacts are categorically excluded from further analysis based on similar land use based on CATEX #A2.3.11 which encompasses the granting of leases to use USAF-controlled property for actions similar to other actions which have been determined to have an insignificant impact in a similar setting as established in the Final Environmental Impact Statement (FEIS) for Griffiss AFB, dated Nov 95 and the Final Supplemental Environmental Impact Statement, dated Sept 99. Based on this analysis, the environmental impacts of the lease procceedings are not sufficiently adverse to human health and the environment to outweigh the other advantages to the community and the public interest of this lease, or to prevent the leasing of the property.

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION *(Name and Grade)*	19a. SIGNATURE	19b. DATE
Michael F. McDermott, GS-13		3JAN00

Lease Restriction/ Disclosure or Notification Required?		***Environmental Factors Considered***
No	Yes	
		Environmental Restoration, Hazardous Substances, Petroleum
	X	Hazardous Substances (Notification)
	X	Installation Restoration Program (IRP) and Areas of Concern
X		Medical/Biohazardous Wastes
	X	Oil/Water Separators (OWSs)
	X	Unexploded Ordnance
X		Radioactive & Mixed Wastes
	X	Storage Tanks (UST/AST)
		Disclosure Factors/Resources:
	X	Asbestos
	X	Groundwater Quality
X		Drinking Water Quality
X		Indoor Air Quality
X		Lead-Based Paint (High-Priority Facilities)
	X	Lead-Based Paint (Other Facilities)
X		PCBs
X		Radon
		Other Factors:
X		Air Conformity/Air Permits
X		Energy (Utilities)
X		Flood plains
	X	Hazardous Waste Management (By Leasee)
X		Historic Property (Archeological/Native American, Palentological)
X		OSHA (Occupational Safety & Health Administration)
X		Outdoor Air Quality
X		Prime/Unique Farmlands:
	X	Sanitary Sewer Systems (Wastewater)
X		Sensitive Habitat
X		Septic Tanks (Wastewater)
X		Solid Waste (Disposal of demolition materials)
X		Threatened and Endangered Species
X		Transportation
X		Wetlands

Attachment 5

Griffiss AFB
FINDING OF SUITABILITY TO LEASE
Building 782
NOTICE OF HAZARDOUS SUBSTANCES STORED

Notice is hereby provided that the information set out below from the Basewide EBS and its supplement provide notice of hazardous substances and their respective quantities that are known to have been stored for one (1) year or more within Building 782, Griffiss Air Force Base, and the dates that the storage took place.

Building Number	Substance Stored	Regulatory Synonym(s)	CAS Registry Number	Dates Stored	Quantity (kg/year)
782	Sealant (toluene)	Benzene, methyl-	108-88-3	1984-86 1990-91	544
	Sealing Compound (dimethylformamide)	N,N-dimethylformamide	66-12-2	1984-86	544
	Sealing Compound (methyl ethyl ketone)	2-Butanone	78-93-2	1984-86	544

Attachment 6

Griffiss AFB
FINDING OF SUITABILITY TO LEASE
Building 782
NOTICE OF HAZARDOUS WASTE STORED

Notice is hereby provided that the information set out below from the Basewide EBS and its supplement provide notice of hazardous wastes and their respective quantities that are known to have been stored (90 day maximum) within Building 782, Griffiss Air Force Base, and the dates that the storage took place.

Building Number	Waste Stored	Regulatory Waste Number	Year	Quantity (lbs.)
782	Spill Resistant, JP-4, and Absorbent	D001	1988-92	2,435
	JP4 Absorbent & JP4/Water	D001/D018	1993	1,320

Attachment 7

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 782
REGULATOR COMMENTS

Attachment 8

Griffiss AFB
FINDING OF SUITABILITY TO LEASE (FOSL)
Building 782
AFBCA RESPONSE TO REGULATORY COMMENTS

1. The United States Environmental Protection Agency (EPA, Region 2) submitted comments on **???????** in response to the **??????????** consolidated draft of the subject FOSL. Their comments are addressed as follows:

2. The New York State Department of Environmental Conservation submitted comments on **???????** in response to the **??????????** consolidated draft of the subject FOSL. Their comments are addressed as follows:

SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

Building 782

Griffiss AFB, NY

CHAPTER 1 - PURPOSE OF THE SUPPLEMENTAL ENVIRONMENTAL BASELINE SURVEY

1.1 Introduction. This Supplemental Environmental Baseline Survey (SEBS) has been prepared to document the environmental condition of Building 782 and the associated property resulting from the storage, release, or disposal of hazardous substances and/or petroleum products and other environmental conditions over the area's history in order to establish a baseline for use by the United States Air Force (USAF) in making decisions concerning real property transactions. Changes in the environmental condition of the property since publication of the Griffiss Air Force Base (AFB) Basewide EBS are also documented in this SEBS.

1.2 Description:

The property to be leased consists of a total of approximately 9.57 acres. The property includes Building 782 (28,251 SF), the concrete paved area to the southeast and the grassed area located to the northwest of the nosedocks.

CHAPTER 2 - SURVEY METHODOLOGY

2.1 Approach and Rationale. The data used in preparing this SEBS were obtained from the Griffiss AFB Basewide EBS dated September 1994. The EBS was based on record searches, interviews, and visual site inspections (VSIs). The data and information contained in the EBS were prepared in accordance with Department of Defense (DoD) policies and guidance, as they pertain to the procedures for conducting an EBS. A confirmatory VSI was conducted and additional data was collected in December 1999, to verify the condition of the property.

Based on a review of the Basewide EBS and a VSI of the property, Building 782 and surrounding pavements are considered Department of Defense Environmental Condition Category 7. Category 7 areas are areas that are not evaluated or require additional evaluation.

The United States Environmental Protection Agency (USEPA) has concurred that further investigations are required.

2.1.1 Description of Documents Reviewed. A list of documentation reviewed is provided in the Griffiss AFB Basewide EBS. The primary types of studies or investigations included Installation Restoration Program (IRP) studies, USAF Base Realignment and Closure (BRAC) Cleanup Plan (April 1994), the 1993 USAF Real Property Inventory, underground storage tank/above ground storage tank (UST/AST) investigations, National Environmental Policy Act documentation, the 1993 Environmental Compliance Assessment and Management Program

(ECAMP) Environmental Findings Preliminary Report, and Federal, State, and local documentation.

2.1.2 Inspection of Properties Conducted. VSIs of the interior and exterior of the building and associated property were conducted during preparation of the Basewide EBS. A confirmatory VSI was conducted in December 1999 to document any changes in the property condition that had occurred since the initial Basewide EBS was published. The purpose of the VSI was to identify any stained soils, stressed vegetation, leachate seepages, unusual odors, friable insulation, peeling paint, etc., which might indicate environmental concern.

2.1.3 Personnel Interviews. Base personnel were contacted and interviewed, when possible, during the initial records search and VSI trips conducted for the Basewide EBS. Personnel interviewed during the Griffiss AFB Basewide EBS included representatives from civil engineering, real property, industrial engineering, and operations. The USAF Remedial Project Manager (RPM), who is responsible for initiating and managing projects that are necessary to evaluate and cleanup sites that have been contaminated with hazardous substances and waste from past base activities, was also interviewed.

CHAPTER 3 - FINDINGS FOR BUILDING 782

3.1 Environmental Setting. Griffiss AFB occupies approximately 3,540 acres in central Oneida County in upstate New York, in the City of Rome. A description of the area's climate, topography, hydrology, geology and utilities are contained in Section 3.2 of the Griffiss AFB Basewide EBS.

3.2 Property Categorization Resources

3.2.1 Environmental Factors. There are/was no record or evidence of medical/ biohazardous waste, ordnance, and radioactive waste releases on the subject property. No sensitive habitats or prime or unique farmland concerns are associated with the property. There are no threatened or endangered species, cultural resources, and wetland or floodplain concerns associated with this property.

3.2.2 Hazardous Substance/Material Storage.

Past activities on the property included the storage of hazardous materials and wastes at an accumulation point in Building 782 (STW-782) as part of aircraft maintenance activities.

3.2.3 IRP and AOC Sites Identified to Date. There are three (3) Area Of Concern (AOC) sites located within the subject property.

AOC/IRP Site ID	Site Name
SD-41	Bldg 782, Nose Docks 1 & 2
SS-46	Glycol Use/Storage Areas
SD-52	On Base Groundwater

SD-41, Building 782 (Nose Docks 1 & 2) is an AOC that is located adjacent to Buildings 782 and 783, between Aprons 1 and 2. The site consists of two areas of contaminated soil, associated with releases from an oil/water separator (OWS) located near the northeastern corner of Building 782, and the second comprising the location of a soil fire that occurred during trenching operations between the Nose Docks and Apron 1. Stained soil has been excavated in the past to a depth of 2 feet; however, contamination below this level is known to exist. The draft final Remedial Investigations (RI) report issued in December 1996 recommended removal of the OWS and contaminated soils, investigation of the source of contamination in the vicinity of the trench fire along the southern edge of Apron 1, and the evaluation of remedial alternatives for the remediation of contaminated soils and groundwater in the area. The RI report also recommended delineation of petroleum hydrocarbon contamination in the groundwater at the site. Additional investigations are presently being performed under project JREZ97-6003, Remedial Action for Former Underground Storage Tanks (USTs) sites.

SS-46, Glycol Use and Storage Area, is an AOC that was recommended for no further action in the Draft Final RI report dated December 1996. This AOC is primarily associated with glycol spills in the vicinity of Apron 2. Regulator concurrence has not been obtained.

At **SD-52, On Base Groundwater Contamination**, the groundwater on the property was investigated and analytical results are presented in the Draft Final RI report dated December 1996. The draft RI report indicated that no release, disposal, or migration of hazardous substances or petroleum products has occurred into the groundwater at the property with the exception of the petroleum hydrocarbon plume associated with site SD-41.

All AOIs on the subject property have been classified as Covered Under Other Programs or No Further Study.

3.2.4 Underground and Aboveground Storage Tanks (USTs and ASTs)

There are two (2) USTs and one (1) former UST sites on the property.

Table 3.2.4
Storage Tanks

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-5730-1 Waste Oil	2,000	Northwest of B/782 Associated with OWS-5730-1 (SD-41)	9413416 Open	Removed 1994 920077	1994
UST-5730-2 Waste Oil	2,000	Northwest of B/782 Associated with OWS-5730-2 (SD-41)	9413416 Open	Closed in Place Invest 960020	1997

Tank Number/ Contents	Tank Size (gallons)	Location	Releases/ Spill Number /Status	Tank Status/Removal Project Number	Tank Closure Date*
UST-8005 JP4/8, Type III Fuel System	4,000	East of B/782	None	Closed in Place	1999

* Based on correspondence dated October 1, 1997, from the NYSDEC, all tanks listed as closed on the above table have been removed from the Griffiss AFB Major Oil Storage Facility license.

3.2.5 Petroleum, Oil and Lubricant Systems (POL)

There are three (3) abandoned in place and closed underground fuel lines sites on the property.

Table 3.2.5
Hydrant Fueling and Pipeline Systems

POL Number	Location	Releases/ Spill Number /Status	POL Status/Removal Project Number	POL Closure Date
POL-772-2	Type III System, refuel/defuel loop east & west sides of Apron 2	9713631 associated with Apron 2 - Open	Deactivated 1995. Cleaned & sampled under 95-7050	1995
POL-773-2	Runs north and south just east of Apron 1 and supplied the refueling pits for Easy Row, Apron 1	9707954 associated with Apron 1 Open	Deactivated 1993. Cleaned & sampled under 95-0038 Further investigations under 97-6003	1996
POL-781-2	Runs north and south just east of Apron 2 and supplied the refueling pits for Baker Row, Apron 2	9608239 closed 10/2/96 9713631 associated with Apron 2 Open	Deactivated 1993. Cleaned & sampled under 95-0038 Further investigations under 97-6003	1996

3.2.6 Oil/Water Separators (OWSs)

There is one (1) OWS site and one (1) former OWS site located on the property.

Table 3.2.6
Oil/Water Separators

OWS Number	Location	Releases/ Spill Number /Status	OWS Status	OWS Closure Date
OWS-5730-1	Northwest of B/782	9413416 Open	Removed 1995/ under 92-0077 Further investigations under 96-0020	IRP Site SD-41
OWS-5730-2	Northwest of B/782 Replaced OWS-5730-1 Same location	9413416 Open	Closed in Place Further investigations under 96-0020	IRP Site SD-41

3.2.7 Wastewater

Building 782 is connected to a sanitary sewer.

3.2.8 Ordnance Related Material Notification

The risk associated with the possible presence of unexploded ordnance remaining on the property has been investigated by the United States Army Corps of Engineers (USACE/Huntsville) and documented in the Archives Search Report - Recommendations and Findings, dated November 1997. The Archives Search Report (ASR) was developed by the USACE after extensive research of the munitions related history of Griffiss AFB and several interviews with past and present DoD employees. A list of the documents reviewed and the employees interviewed is provided in the ASR. Eleven (11) former munitions related sites at Griffiss AFB were identified for further investigation. None of the eleven munitions related sites are identified to be present within the property. Clearing operations were performed in the summer of 1998 and documented in a final report dated October 30, 1998.

The intent of the investigation was to eliminate the presence of all ordnance and ordnance related materials within the identified areas. While not likely, it is possible that ordnance, not previously identified in the ASR, may be present on the property.

3.2.9 Historic Property

The draft Historic Structures Survey dated October 1995 was issued for review and revised on July 14, 1998. Comments on the revised draft were received from the NY State Office of Parks, Recreation and Historic Preservation on September 9, 1998. Based on the comments received, all buildings located within the property have been released from consideration.

3.3 Disclosure Resources

3.3.1 Asbestos Containing Materials (ACM)

The asbestos survey results of buildings on Griffiss AFB are presented in Appendix H, table H-1 of the Basewide EBS. Subsequent to the publication of the Basewide EBS, a comprehensive asbestos survey was performed in the fall of 1994. ACM was identified in Building 782. The asbestos observed during the VSI generally appeared in good condition with the exception of minor damage (not friable) to a few pipe insulation elbows and runs as noted in the VSI report. An asbestos abatement project was performed in June 1999 consisting of the repair of 6 LF of pipe insulation.

3.3.2 Lead-Based Paint (LBP)

LBP may be present in Building 782. The Air Force has classified this facility as a facility with a probability of having a LBP hazard because it was constructed prior to 1978 when the maximum allowable content of lead in paint was reduced.

CHAPTER 4 - FINDINGS FOR ADJACENT PROPERTIES

4.1 Adjacent Properties. Appendix A, Table A-1 in the Basewide EBS, identifies the properties that are adjacent to the subject property. Additional information on each site is provided in Appendix D of the Basewide EBS. There are three (3) Area Of Concern (AOC) or Installation Restoration Program (IRP) sites located on adjacent property that may impact the property.

AOC/IRP Site ID	Site Name
SD-32	Six Mile Creek and WSA Lagoon
SS-34	Building 786 (Nose Dock #5) - Soil Contamination
ST-37	Building 771, Pumphouse 5

SD-32, Six Mile Creek and WSA Lagoon, is an AOC located north of the runway. The Air Force recommended in its Draft Final Remedial Investigations (RI) report dated December 1996 that a feasibility study be performed to evaluate potential remedial actions required to mitigate chemicals of concern in the surface water and sediments. The draft Feasibility Study (FS) was issued in January 1999. USEPA comments on the draft FS were received on April 8, 1999 and comments were received from the NYSDEC on April 9, 1999.

SS-34, Building 786 (Nose Dock #5) - Soil Contamination, is an AOC. Liquids used in the area included oil, solvents, and fuels. An aboveground storage tank (AST) for liquid wastes was formerly located on the east side of Building 786. In 1990, the AST and the surrounding contaminated soil were removed and the tank was replaced with three underground storage tanks (USTs). The draft final Remedial Investigation (RI) report issued in December 1996 recommended no further action for soils, delineation of petroleum hydrocarbon groundwater contamination, and delineation of chlorinated solvent contamination as part of an operable unit

under On-Base Groundwater Contamination AOC. Additional contaminated surface soil will be removed in 2000 in the immediate area of the former AST. Petroleum contaminated subsurface soils and groundwater require further investigation that will be performed under project number JREZ97-6042B.

ST-37, Building 771, Pumphouse 5, is a Source Removal Site. Construction of the Industrial Access Road has occurred adjacent to the Pumphouse 5 site. A source removal action has been completed at Pumphouse 5. Residual contamination in the soil and groundwater is being addressed under funded project JREZ96-0021, Close Pumphouse 5.

CHAPTER 5 - PROPERTY CATEGORY

5.1 Conclusions: Based on a review of the Basewide EBS and a VSI of the property, Building 782 and surrounding pavements are considered Department of Defense Environmental Condition Category 7. Category 7 areas are areas that are not evaluated or require additional evaluation.

The United States Environmental Protection Agency (USEPA) has concurred that further investigations are required.

The identified IRP sites within and adjacent to the property are not expected to pose a concern to the leasing of the property.

CHAPTER 6 - CERTIFICATION

I certify that the property conditions stated in this report are based on a thorough review of available records, visual inspections, and sampling and analysis as noted, and are true and correct to the best of my knowledge and belief.

Michael T McDermott

30 Dec 99

MICHAEL McDERMOTT
BRAC Environmental Coordinator
AFBCA/DA - Griffiss

Date

Attachments:
1. Table H-1 (EBS)
2. Comprehensive Asbestos Survey

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 782 HANGAR

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
EXT	Floor:0X Exterior	3700 sqft	7						Dir
	AAA Ceiling - Transite	570 sqft	7	1	2	0	0	Assmd Pos.	Material Under Roof Overhang.
STAIR	Floor:01 Hallway Or Stairs	90 sqft	8						No Suspected Asbestos Containing Material In Space.
	NNN Wall - Sheetrock	-		-	-	-	-	Assmd Neg.	Ultra-wall/untaped Sheetrock, Non-asbestos Containing Material.
	NNN Ceiling Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
HANGAR	Floor:01 Hangar	23000 sqft	2						Functional Space Includes Area Over Small Storage Rooms In Hangar.
	001 Piping - Heating Hot Water	500 ft		1	2	0	0	Negative	Tar And Foil Wrap Over Fiberglass.
	001 Piping - Heating Hot Water	1800 ft		1	2	0	0	Negative	Tar And Foil Wrap Over Fiberglass.
	002 Fitting - Heating Hot Water	25 ftgs	2	1	2	6	0	Positive	
	002 Fitting - Heating Hot Water	70 ftgs	2	1	2	6	0	Positive	
	005 Door Core Insulation - Fire Do	63 sqft	3	1	2	6	0	Positive	Block Material Inside Metal Doors.
	AAA Hvac - Flexible Duct/flex Duct	20 sqft	3	1	2	3	0	Assmd Pos.	Canvas-like Material.
	NNN Outer Wall Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Ceiling Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Fitting (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
BREAK	Floor:02 Lounge	610 sqft	3						
	008 Mastic Floor	610 sqft		1	8	0	0	Negative	Black.
	AAA Ceiling Tile - Lay In	500 sqft	3	1	2	3	0	Assmd Pos.	2' X 4' White Fissured Pattern.
	NNN Wall - Sheetrock	-		-	-	-	-	Assmd Neg.	Ultra-wall/untaped Sheetrock, Non-asbestos Containing Material. Above Ceiling.
	NNN Domestic Hot Water Tank	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing. Under Metal Jacket.
	NNN Ceiling - Sheetrock	-		-	-	-	-	Assmd Neg.	Ultra-wall/untaped Sheetrock, Non-asbestos Containing Material. Above Ceiling.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 782 HANGAR

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
MECH	Floor:01 Mechanical Room	1000 sqft	2						
	001 Piping - Heating Hot Water	45 ft		2	5	0	0	Negative	Tar And Foil Wrap Over Fiberglass.
	001 Piping - Heating Hot Water	150 ft		2	5	0	0	Negative	Tar And Foil Wrap Over Fiberglass.
	002 Fitting - Heating Hot Water	4 ftgs	2	1	5	6	0	Positive	
	002 Fitting - Heating Hot Water	40 ftgs	2	1	5	6	0	Positive	
	003 Mech Equip. - Heat Exchanger	45 sqft	2	1	5	6	0	Positive	
	004 Mech Equip. - Tank	60 sqft	2	4	2	6	0	Positive	No Asbestos Containing Materials On Ends Of Tank.
	005 Door Core Insulation - Fire Do	21 sqft	2	2	5	6	0	Positive	Block Material Inside Metal Doors.
	NNN Pipe (type Not Specified.)	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
	NNN Outer Wall Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.
ROOF1	Floor:1R Roof	36 sqft	8						No Suspected Asbestos Containing Material In Space. Peaked Roof.
ROOF2	Floor:2R Roof	25000 sqft	8						No Suspected Asbestos Containing Material In Space. Peaked Roof.
STOR1	Floor:01 Storage	280 sqft	2						
	006 Ceiling - Sheetrock	240 sqft	3	5	2	1	0	Positive	
	AAA Vinyl Composite Tile Floor	280 sqft	7	2	8	0	0	Assmd Pos.	Many Types: 12" X 12" Gray Mottled; 9" X 9" Brown With Red Streaks; 12" X 12" Black; 12" X 12" Tan With Maroon Streaks; 12" X 12" Gray With White Streaks.
STOR2	Floor:01 Storage	885 sqft	7						
	007 Ceiling Mastic	90 sqft	7	0	2	0	0	Positive	Dark Brown.
	AAA Vinyl Composite Tile Floor	885 sqft	7	2	8	0	0	Assmd Pos.	Many Types: 12" X 12" Gray Mottled; 9" X 9" Brown With Red Streaks; 12" X 12" Black; 12" X 12" Tan With Maroon Streaks; 12" X 12" Gray With White Streaks.
	NNN Ceiling - Glued Tile	-		-	-	-	-	Assmd Neg.	12" X 12" White Fisssured, Fiberglass.

S P A C E D E T A I L R E P O R T

Plant: GRIF Site NEW
Building: 782 HANGAR

System ID: BCA01
Cycle: GY336GR

Space ID	Material ID	Quant.	Priority	RF1	RF4	RF5	RF6	Lab Rslt	Comments
STOR3	Floor:02 Storage	154 sqft	7						
	AAA Vinyl Composite Tile Floor	154 sqft	7	2	8	0	0	Assmd Pos.	Many Types: 12" X 12" Gray Mottled; 9" X 9" Brown With Red Streaks; 12" X 12" Black; 12" X 12" Tan With Maroon Streaks; 12" X 12" Gray With White Streaks.
TOIL	Floor:02 Toilet Room	390 sqft	7						
	001 Piping - Heating Hot Water	6 ft		2	5	0	0	Negative	Tar And Foil Wrap Over Fiberglass.
	009 Ceiling - Sheetrock	40 sqft		1	2	1	0	Negative	
	AAA Vinyl Composite Tile Floor	40 sqft	7	2	8	0	0	Assmd Pos.	Many Types: 12" X 12" Gray Mottled; 9" X 9" Brown With Red Streaks; 12" X 12" Black; 12" X 12" Tan With Maroon Streaks; 12" X 12" Gray With White Streaks.
	NNN Ceiling Insulation Batts	-		-	-	-	-	Assmd Neg.	Fiberglass, Non-asbestos Containing.

Bldg	Location	Quantity	Building Element	Inspection Date	Last Inspection	Number	Result	Comments
782	Mechanical Room		Heat Exchange Insulation	87/09/23		GM870300	85	Domestic hot water heat exchanger. Fair to Poor condition. 85% Chrysotile, 7% Amosite
782	Mechanical Room		Heat Exchange Insulation	87/09/23		GM870408	80	Domestic Hot water heat exchanger. Fair to poor condition. Chrysotile.
782	Mechanical Room		Pipe Joint Insulation	87/09/23		GM870409	80	Chrysotile
782	Mechanical Room		Pipe Insulation	87/09/23		GM870410	65	Steam entrance pit, old insulation. Chrysotile
783	Mechanical Room		Heat Exchange Insulation	87/09/23		GM870411	35	Block Insul, poor cond. All other insul same as bldg. 782, good condition. 35% Chrysotile, 15% Amos
784	Mechanical Room			87/09/23				Good Condition. Insulation same as in building 782.
784	Mobility/Training		Floor Tile	90/03/14		GM900075	ND	12' RED
784	Mobility/Training		Floor Tile Mastic	90/03/14		GM900076	ND	
785	Mechanical Room			87/09/23				Good condition. Insulation same as in building 782.
786	Mechanical Room			87/09/23				Good Condtion. Insulation same as in building 782.
789	Boiler Room		Boiler Stack Insulation	91/02/05		CE910162	14	AMOSITE.
789	Boiler Room		Steam Pipe Fitting Insulation	91/02/05		CE910163	9	CONDENSATE LINE.
789	Boiler Room		Water Tank Insulation	91/02/05		CE910164	28	HOT WATER STORAGE TANK OUTER INSULATION OVER FIBERGLASS.
793	Mechanical Room		Small Boiler	87/06/15		GM870273	60	60% chrysotile, 25% amosite. Encapsulated in Jun 1987. Good condition.
793	Mechanical Room		Large Boiler	87/06/15		GM870274	30	5% chrysotile, 30% amosite. Encapsulated in Jun 1987.
793	Mechanical Room		Gray Piping Insul.	87/06/15		GM870275	25	chrysotile
793	Bathroom		Pipe Insulation	87/12/22		GM870731	ND	Pipe insulation between floors.
793	Lower Level, Room A		Door Insulation	90/02/20		GM900035	ND	FIRE RATED DOOR.
793	Fox Row		Water Main	91/09/12		CE910507	41	19% CHRYSOTILE, 22% CROCIDOLITE.
799	B-Alert Guard House			91/05/16				THIS FACILITY IS ASBESTOS FREE.
805	Generator Room		Water Line Fitting	92/06/22		CE920196	8.7	CHRYSOTILE, CAL-SIL TYPE MUDDED INSULATION.
805	Generator Room	50	Water Line Insulation	92/06/22		CE920197	ND	MILLBOARD INSULATION.
805	Main Rm	900 SF	Floor Tile	92/06/22				9" X 9" VINYL ASBESTOS TILE. THE GENERATOR ROOM HAS A CONCRETE FLOOR.
811	Tower Ceiling		Ceiling Tile	91/05/16		CE910256	ND	1' SQUARES
817	Center of Bldg		Ceiling Tile	89/05/18		GM890123	ND	