SS-007 Former Engine Test Stand
Plattsburgh Air Force Base
Plattsburgh, New York

FINAL
NFRAP DECISION DOCUMENT

Contract No. F41624-03-D-8601
Task Order No. 0017

Revision 0.0
September 2004

FPM group

DEPARTMENT OF THE AIR FORCE
AIR FORCE REAL PROPERTY AGENCY

September 29, 2004

MEMORANDUM FOR NYS DEPARTMENT OF ENVMTL CONSERVATION
ATTN: MR. JAMES LISTER
Bureau of Eastern Remedial Action
625 Broadway, 11th Floor
Albany NY 12233-7015

FROM: AFRPA/DA Plattsburgh
304 New York Road
Plattsburgh NY 12903

SUBJECT: IRP Site SS-007, Former Engine Test Stand, Plattsburgh AFB, New York

Attached for your information and files is the No Further Action Decision Document (NFA DD) for the subject site.

As stated in the document, the decision for no further action at this site is based on the results and/or recommendations from the Site Investigation (SI) for Attachment II Sites, Plattsburgh AFB; a Human Health Risk Assessment for SS-007, Plattsburgh AFB; the FT-002 RI/FS; and the Informal Technical Information Report for Groundwater Sampling of Wells along the Eastern Base Boundary, Plattsburgh AFB.

Although not specifically required, we will publish an announcement in the local paper to inform the public of this Decision Document. A copy will be made available for public review. In addition, we will brief this site at the next Restoration Advisory Board (RAB) meeting.

This correspondence and the attached document will be filed in the Administrative Record and will serve to document closeout of this site. Any questions or comments can be directed to Dave Farnsworth at (518) 563-2871, extension 15.

MICHAEL D. SOREL, PE
Site Manager/BRAC Environmental Coordinator

Attachment:
No Further Action Decision Document, SS-007,
September 2004

cc:
USEPA (Mr. Robert Morse)

DEPARTMENT OF THE AIR FORCE
AIR FORCE REAL PROPERTY AGENCY

September 29, 2004

MEMORANDUM FOR USEPA, REGION 2
ATTN: MR. ROBERT MORSE
Federal Facilities Section
290 Broadway, 18th Floor
New York NY 10007-1866

FROM: AFRPA/DA Plattsburgh
304 New York Road
Plattsburgh NY 12903

SUBJECT: IRP Site SS-007, Former Engine Test Stand, Plattsburgh AFB, New York

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MICHAEL D. SOREL, PE
Site Manager/BRAC Environmental Coordinator

Attachment:
No Further Action Decision Document, SS-007,
September 2004

cc:
NYSDEC (Mr. James Liste

FINAL

NFRAP DECISION DOCUMENT

Prepared for:

Site SS-007
Former Engine Test Stand
Plattsburgh Air Force Base
Plattsburgh, New York

Through

Air Force Center for Environmental Excellence
3300 Sydney Brooks
Brooks AFB, TX 78235-5112

Prepared by:

FPM Group, Ltd.
153 Brooks Road
Rome, NY 13441

Contract No. F41624-03-D-8601
Task Order 0017

September 2004

SITE NAME and LOCATION

IRP Site SS-007, Former Engine Test Stand, Plattsburgh Air Force Base (AFB), Clinton County, New York.

PURPOSE AND STATEMENT of BASIS

This Decision Document is being issued to present a No Further Response Action Planned (NFRAP) recommendation for the Former Engine Test Stand, SS-007, at the former Plattsburgh Air Force Base, New York.

This decision is based on the results and/or recommendations from the Site Investigation (SI) for Attachment II Sites, Plattsburgh AFB, a Human Health Risk Assessment for SS-007, Plattsburgh AFB, the FT-002 RI/FS, and the Informal Technical Information Report for Groundwater Sampling of Wells along the Eastern Base Boundary, Plattsburgh Air Force Base.

DESCRIPTION of the SELECTED REMEDY

Based on current site conditions, and the lack of human health risks for current and future uses of SS-007, and the lack of environmental threats, no further action is required.

STATUTORY DETERMINATIONS

This decision document presents the selected no further response action planned for the Former Engine Test Stand, SS-007, Plattsburgh AFB, Plattsburgh, New York, which was chosen in accordance with the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and reauthorizing Act of 1986 (SARA), and the National Contingency Plan (NCP). It also satisfies the requirements of the National Environmental Policy Act that applies to CERCLA response actions. It has been determined that the selected remedy of NFRAP is protective of human health and the environment, attains federal and state requirements that are applicable or relevant and appropriate, and is cost-effective. Contaminant levels at the site have been determined to present no significant threat to human health or the environment.

9-27-04

Michael D. Sorel, P.E. — Date
Site Manager/BRAC Environmental Coordinator
Air Force Real Property Agency/DA-Plattsburgh

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1.0 INTRODUCTION

This Decision Document is being issued by United States Air Force (USAF) to submit a No Further Response Action Planned (NFRAP) recommendation for the Former Engine Test Stand, SS-007, at the former Plattsburgh Air Force Base (AFB), New York. The NFRAP recommendation is supported by the following information.

1.1 Site Summary

Plattsburgh AFB is located in Clinton County, along the western shore of Lake Champlain and consisted of 3,447 acres prior to its closure. The former installation is located in a mixed-use area consisting of private residences and industrial and commercial enterprises. It is bordered by the City of Plattsburgh and the Saranac River to the north, and the Salmon River to the south (Figure 1-1). Lake Champlain and lakeshore communities within the Town of Plattsburgh lie to the east and southeast.

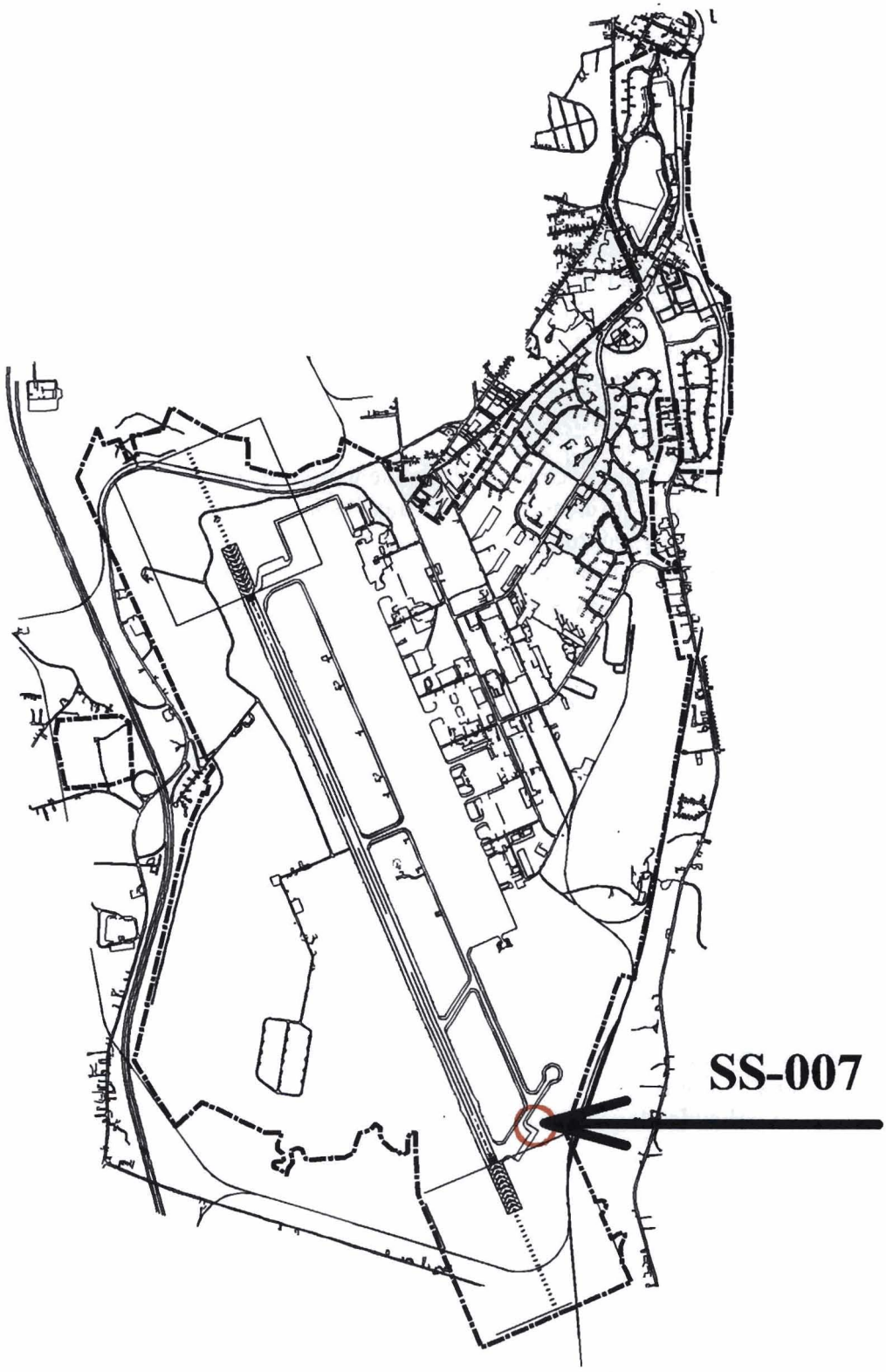
The installation can be viewed as being divided into two areas based on historic land use. The "Old Base" also known as the Barracks, encompassing approximately 250 acres of land with administrative, warehouse, maintenance and housing buildings. The "New Base" portion supports an airfield, aviation related and other industrial buildings (including the Former Engine Test Stand).

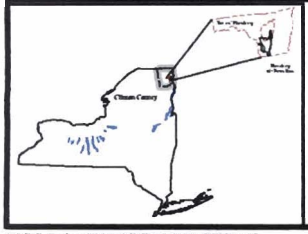
1.2 Geology

The surficial unconsolidated deposits in the region consist of sand, silt, and clay that form an unconfined aquifer overlying a clay confining unit above a glacial till layer. Sand and gravel deposits occur along the Salmon and Saranac Rivers. These include fine- to coarse-grained sand interbedded with layers of gravel. The underlying glacial till consists of sandy till and clayey till forming a continuous confining or semi-confining layer that extends across the base. Limestone and dolomite with interbedded layers of sandstone and shale form the bedrock underlying the confining layer.

1.3 Hydrology

Regional groundwater flow within the unconsolidated aquifer is generally east towards Lake Champlain; however it is also influenced by the Salmon River. A north-south groundwater divide approximately bisects the apron. Groundwater flow above this ridge, is southwest towards the Salmon River while groundwater flow on the eastern side is toward Lake Champlain.





Site Location Map
IRP Site SS-007

UNITED STATES AIR FORCE
PLATTSBURG AIR FORCE BASE
PLATTSBURG ,NEW YORK

Figure 1-1

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Y:\GIS_Projects\PAFB\GIS\PDF\IRP_SS007.pdf

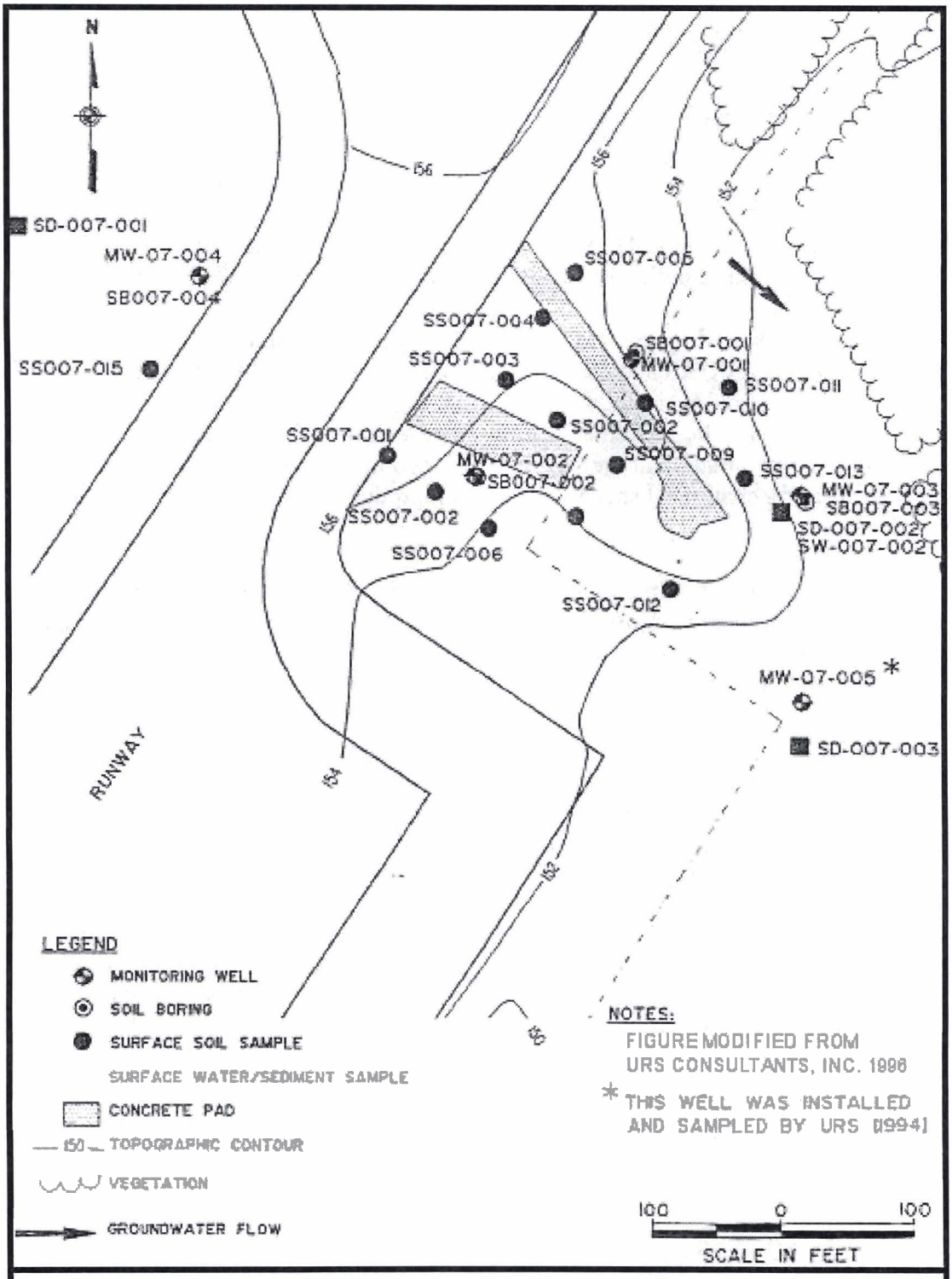
2.0 SITE DESCRIPTION

SS-007 is located next to the parking apron on the southeastern side of the taxiway and is approximately 1 acre in size. The site is heavily grassed with large sections of pavement. To the northeast, east, and southeast are densely forested areas. To the north and west, taxiways are immediately adjacent to the site. Two perimeter fence lines border the site. A chain-link fence with a locked access gate (gate #24) runs along the western side of the site, while a four-strand barbed wire fence runs through the forested area along the eastern side of the site.

Until 1960, the site was used to test jet engines and reciprocating engines for propeller driven aircraft. Jet Fuel (e.g., AVGAS and JP-4), solvent and degreasers, lubricating oils, and carbon removers were the principle toxic and hazardous substances used while the site was active. Heating oils also may have been used at this site. The testing facilities were removed in the early 1960's. Potential contamination at the site was observed in November 1987 when workers installing a security fence noticed sheen of petroleum product accumulating on top of water in the fence post holes.

Included in the Environmental Impact Statement that was issued by the Plattsburgh Intermunicipal Development Commission, a future land use plan for the AFB was developed. According to this plan the Former Engine Test Stand site will likely be used for airfield, airfield support, or industrial purposes (Tetra Tech, Inc., November 1995 and May 2000).

The water table at SS-007 lies within a few feet of the ground surface. This uppermost aquifer is a silty sand overlying a clay confining unit, ranging in depth from 3 to 7 feet below ground surface. Groundwater flows southwestward towards the Salmon River. Below the clay confining unit, a till layer extends from approximately 30 feet deep down to bedrock at approximately 170 feet below ground surface (URS, September, 1996).



Former Engine Test Stand SS-007
Environmental Sampling and Monitoring Well Locations
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Figure 2-1

3.0 PREVIOUS INVESTIGATIONS

3.1 Site Investigations Attachment II Sites, Plattsburgh Air Force Base, Plattsburgh, New York, Draft Final, Site Investigation Report, January 1994

In 1993, Malcolm Pirnie, Inc. performed a site investigation to provide information on the presence or absence of contaminated soils and groundwater and to determine if a remedial investigation was required. This study included the analysis of 14 surface soil samples, 5 subsurface soil samples, 2 surface water samples, 4 sediment samples, and the installation and sampling of 4 monitoring wells. This report recommended no further action at SS-007(Malcolm Pirnie, Inc, January 1994). In response to this report, the USEPA requested downgradient groundwater data for the site (Morse, May 1994). A downgradient monitoring well, MW-07-005, was installed in the fall of 1994 by URS Consultants, Inc (URS, September 1996).

3.2 Site SS-007 Former Engine Test Stand Human Health Risk Assessment, Plattsburgh Air Force Base, Plattsburgh, New York, Draft, 1995

In March of 1995, a human health risk assessment was completed based upon the SI data and incorporating the fall 1994 sampling round of MW-07-005. This report recommended no further action at SS-007 (URS, March 1995). In response to this report, the NYSDEC requested verification of groundwater use on-site and downgradient off-base (Lister, May 1995).

3.3 Fire Training Area (FT-002)/Industrial Area Groundwater Operable Unit Remedial Investigation/Feasibility Study, Plattsburgh Air Force Base, Clinton County, New York, Draft Final, February 2000

This study addresses contaminants in the groundwater at Plattsburgh Air Force Base resulting from chemical spills at the Fire Training area and other sites in the industrial corridor, which SS-007 is a part of. In this study, MW-07-005 was sampled, along with 13 other wells along the eastern boundary of the base, in the summer of 1996, the summer and winter of 1998, and during the summer of 1999. These wells were selected to routinely monitor the groundwater flowing out of the base along its eastern perimeter. In response to the NYSDEC's request for further information of off-site groundwater use, this report found that no off-base groundwater use would be affected (URS, February 2000).

3.4 Informal Technical Information Report, December 2002, Surface Water Sampling of the Golf Course and Weapons Storage Area Streams and Groundwater Sampling of Wells along the Eastern Base Boundary, Plattsburgh Air Force Base

Furthering the groundwater sampling from the FT-002 RI/FS, the Air Force has been conducting semi-annual sampling of the 14 Eastern Perimeter monitoring wells to provide a level of comfort to the community that no on-base contaminants would migrate to municipal water sources. MW-07-005 was part of this sampling until the summer of 2002 when the well was destroyed during lawn mowing. No exceedances of ARARs or TBCs were detected during these sampling rounds (URS, May 2003).

4.0 SUMMARY OF SITE CONTAMINATION

Remedial Actions at CERCLA Sites are required by the National Contingency Plan (40 CFR 300) to meet applicable or relevant and appropriate requirements (ARARs) of federal and state environmental laws and regulations. At SS-007, measured contaminant concentrations were compared to ARARs, or to established non-binding guidelines (TBCs or to be considered) when ARARs for specific mediums were not available. TBCs for soil are based on NYSDEC TAGM 4046 guidelines for protecting groundwater resources from chemicals partitioning from contaminated soils, but are not legally binding. ARARs for groundwater are based on the New York State Ambient Water Quality Standards for Class GA groundwater. Site contamination for each medium is discussed below relative to ARARs and TBCs.

4.1 Contamination results from the 1993 Site Investigation

The suspected spill area at SS-007 was divided into a grid of fourteen surface soil sample locations. Samples were collected from a depth of 0 to 6 inches except for the volatile component of each sample, which was taken at a depth of 6 to 12 inches. Chemicals detected in the surface soil samples included 4 volatile organic compounds (VOCs), 25 semi-volatile organic compounds (SVOCs), 6 pesticides, 1 polychlorinated biphenyl (PCB), and 15 metals. VOCs, PCBs, and pesticides were detected infrequently, and at concentrations below NYSDEC TBCs. SVOCs and metals were detected more frequently but concentrations were still relatively low. Three SVOCs exceeded TBCs in the surface soil; benzo(a)anthracene, benzo(a)pyrene, and dibenz(a,h)anthracene. TBC background levels established for the site were used for comparisons of inorganic constituents in the surface soil. Chromium was the only inorganic analyte detected in twelve of the fourteen samples, and only one of those samples exceeded the background level established for the base.

Five subsurface soil samples were taken from test borings. Samples were taken below the water table, generally, just above the clay confining unit. In the five subsurface soil samples, organic compounds were detected less frequently and at lower concentrations than in the surface soil samples. No organic compounds detected in the samples exceeded NYSDEC TBCs. No metals detected in the subsurface soils exceeded NYSDEC TBCs.

Four sediment samples and 2 surface water samples were taken at low lying areas adjacent to the former engine test stand. These locations are not designated wetlands, but topographic lows where water ponds during rain events. The water at these locations evaporates or is absorbed into the ground within a few days following a rain. In actuality these sediment samples are surface soil samples and were compared to NYSDEC TBC values for soil. Three compounds, benzo(a)anthracene (in 1 of 4 samples), manganese (in 1 of 4 samples), and zinc (in 1 of 4 samples)exceeded state TBCs, but less than one order of magnitude greater. Both surface water samples had detections of iron in exceedance of NYSDEC ARARs.

Four monitoring wells were installed and sampled during the SI. Only three organic compounds, methylene chloride, acetone, and 4-methylphenol, were detected in the monitoring wells. At no

sampling point did the concentrations of either of these three compounds exceed NYSDEC Class GA (groundwater) standards or guidance values. Four metals, iron (in 3 of 4 samples), magnesium (in 2 of 4 samples), manganese (in 3 of 4 samples), and sodium (in 2 of 4 samples), had concentrations that exceeded ARAR values or NYSDEC TBC values. These concentrations did not, however, exceed the background levels established for each compound at Plattsburgh AFB (URS, September 1996).

4.2 Downgradient Monitoring Well Sampling

Following the USEPA's request for downgradient groundwater data, Monitoring well MW-07-005 was installed and sampled in the fall of 1994. Acetone, arsenic, barium, and lead were the only detected compounds in this sample, but neither of these concentrations exceeded ARARs (URS, September 1996).

During the summer of 1996, MW-07-005 was sampled along with 13 other eastern perimeter wells as part of the FT-002 RI/FS. Methyl chloride, a common laboratory contaminant, was detected at a concentration of 1.1 µg/L, which is below the NYSDEC Class GA standards or guidance values. MW-07-005 was sampled for VOCs again in May and December 1998 and June 1999, but no VOCs were detected (URS, February 2000).

Monitoring well MW-07-005 continued being sampled in the summer and winter of each year until it was destroyed during lawn mowing in the late summer of 2002. Contaminants were not detected at concentrations exceeding NYSDEC standards for any of the sampling events (URS, May 2003).

5.0 SUMMARY OF SITE RISKS

Following the SI, a baseline human health risk assessment was conducted to evaluate the current and future risks associated with the site if no remedial action was taken. Site-related human health risk assessments are broken into four steps:

Hazard Identification – establishes the contaminants of concern based on toxicity, frequency of occurrence, and concentration at a site.

Exposure Assessment – estimates the amount of actual and/or potential human exposures, the frequency and duration of these exposures, and the pathways (e.g., incidental ingestion of soil) by which humans could possibly be exposed.

Toxicity Assessment – determines the adverse health effects associated with chemical exposure, and the relationship between dose and response.

Risk Characterization – summarizes and combines results of the exposure and toxicity assessments to provide a quantitative assessment of site-related risks (URS, October 1996).

A current use human exposure scenario and a future use human exposure scenario were evaluated as part of the risk assessment for the Former Engine Test Stand. During current use, personnel in their routine duties could come into contact with contaminants. Potential pathways of exposure for this scenario include incidental ingestion of and dermal contact with surface soil. Consistent with the EIS for Plattsburgh AFB, the future use at SS-007 would be industrial or commercial. In this situation, construction and development at the site could cause exposure of site contaminants to construction workers. Possible routes of exposure include incidental ingestion of, dermal contact with, and inhalation of fugitive dust particles from surface and subsurface soils. After development, commercial or industrial workers could be exposed to contaminants by incidental ingestion of and dermal contact with surface soil (URS, October 1996).

Approximately 1,500 feet downgradient of SS-007, several residents along Route 9 use the bedrock aquifer for a potable water supply. The bedrock aquifer is a confined or semi-confined aquifer which would not be affected by the groundwater flowing off-base. Although the groundwater that is flowing off-base, as tested at SS-007, had some detected organic contaminants, none were in concentrations above their respective NYSDEC ARAR or TBC values, and all the metal contaminants detected were at concentrations below background or TBC values. Also, this thin unconfined aquifer is unlikely to be developed as a water source in the future (URS, October 1996).

The results of the risk assessment indicate that no unacceptable risks are associated with current and future uses at SS-007. In response to the NYSDEC's request for further information of off-base groundwater use, the FT-002 RI/FS study concluded no health risk associated with downgradient, off-base groundwater (URS, February 2000).

6.0 DESCRIPTION OF THE NFRAP ALTERNATIVE

This decision document presents the selected No Further Response Action Planned alternative for the Former Engine Test Stand, SS-007, at Plattsburgh AFB, in Plattsburgh, New York, which was chosen in accordance with CERCLA, as amended by SARA, and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Based on the SI Report, downgradient groundwater sampling, the draft risk assessment, and the groundwater use survey as part of the FT-002 RI/FS, no further action is recommended at SS-007.

As this NFRAP document is a decision for "No Action," the statutory requirements of CERCLA Section 121 for remedial actions are not applicable and no five year review will be undertaken.

7.0 REFERENCES

Lister, James B., P.E., correspondence to Michael D. Sorel, P.E., May 17, 1995.

Malcolm Pirnie, Inc., *Site Investigations Attachment II Sites, Plattsburgh Air Force Base, Plattsburgh, New York, Draft Final, Site Investigation Report*, January 1994.

Morse, Robert D., correspondence to Michael D. Sorel, P.E., May 11, 1994.

Tetra Tech, Inc., *FEIS for Disposal and Reuse of Plattsburgh Air Force Base*, November 1995.

Tetra Tech, Inc., *Environmental Assessment of Alternative Land Uses*, May 2000.

URS Consultants, Inc., *Fire Training Area (FT-002)/Industrial Area Groundwater Operable Unit Remedial Investigation/Feasibility Study, Plattsburgh Air Force Base, Clinton County, New York, Draft Final*, February 2000.

URS Consultants, Inc., *Informal Technical Information Report, December 2002, Surface Water Sampling of the Golf Course and Weapons Storage Area Streams and Groundwater Sampling of Wells along the Eastern Base Boundary, Plattsburgh Air Force Base,* May 2003.

URS Consultants, Inc., *Site SS-007 Former Engine Test Stand Draft Decision Document, Plattsburgh Air Force Base, Plattsburgh, New York*, October 1996.

URS Consultants, Inc., *Site SS-007 Former Engine Test Stand Human Health Risk Assessment, Plattsburgh Air Force Base, Plattsburgh, New York, Draft*, March 1995.