

**FY2012**

**FORT GORDON**

**Army Defense Environmental Restoration Program**

**Installation Action Plan**

Printed 24 January 2013

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## Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multiyear cleanup program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern (AOC), and proposes a comprehensive, installation-wide approach, along with the costs and schedules associated with conducting investigations and taking the necessary remedial actions (RA).

In an effort to coordinate planning information between the restoration manager, the Installation Management Command (IMCOM), the US Army Environmental Command (USAEC), Fort Gordon (FTGD), the executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and budgets for all major Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

## Acronyms

AEDB-CC	Army Environmental Database - Compliance-related Cleanup
APG	Aberdeen Proving Ground
CC	Compliance-related Cleanup
CMI(C)	Corrective Measures Implementation (Construction)
CMI(O)	Corrective Measures Implementation (Operation)
CMS	Corrective Measures Study
CR	Compliance Restoration
CS	Confirmation Sampling
DD	Decision Document
DERP	Defense Environmental Restoration Program
DES	Design
DoD	Department of Defense
DOE	Department of Energy
FRA	Final Remedial Action
FS	Feasibility Study
FTGD	Fort Gordon
FY	Fiscal Year
GAEPD	Georgia Department of Natural Resources, Environmental Protection Division
gal/d	gallons per day
GSA	General Services Administration
ID	Identification
IM	Interim Measures
IMCOM	Installation Management Command
IMP(C)	Implementation - Construction
IMP(O)	Implementation - Operations
IR	Installation Restoration
IRA	Interim Remedial Action
K	thousand
LTM	Long-Term Management
LUC	Land Use Control
MMRP	Military Munitions Response Program
MR	Munitions Response
MSWLF	Municipal Solid Waste Landfill
MTBE	Methyl Tertiary Butyl Ether
N/A	Not Applicable
NPL	National Priorities List
ODUSD (I&E)	Office of the Deputy Under Secretary of Defense for Installations and Environment
OMA	Operations and Maintenance, Army
OU	Operable Unit
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbons
PBA	Performance-Based Acquisition
PCB	Polychlorinated biphenyl
POL	Petroleum, Oil and Lubricants
RA(C)	Remedial Action - (Construction)

## Acronyms

RA(O)	Remedial Action - (Operation)
RC	Response Complete
RD	Remedial Design
RIP	Remedy-in-Place
RMIS	Restoration Management Information System
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
RTC	Response to Comments
SI	Site Inspection
SVOC	Semi-Volatile Organic Compound
SWMU	Solid Waste Management Unit
TAPP	Technical Assistance for Public Participation
TBD	To Be Determined
TMP	Troop Motor Pool
TRADOC	Training and Doctrine Command
TRC	Technical Review Committee
TSCA	Toxic Substances Control Act
USACE	US Army Corps of Engineers
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WWII	World War II

## Acronym Translation Table

### CERCLA

Preliminary Assessment(PA)  
Site Inspection(SI)  
Remedial Investigation/Feasibility Study(RI/FS)  
Remedial Design(RD)  
Remedial Action (Construction)(RA(C))  
Remedial Action (Operation)(RA(O))  
Long Term Management(LTM)  
Interim Remedial Action(IRA)

### RCRA

= RCRA Facility Assessment(RFA)  
= Confirmation Sampling(CS)  
= RCRA Facility Investigation/Corrective Measures Study(RFI/CMS)  
= Design(DES)  
= Corrective Measures Implementation (Construction)(CMI(C))  
= Corrective Measures Implementation (Operation)(CMI(O))  
= Long Term Management(LTM)  
= Interim Measure(IM)

# Installation Information

## Installation Locale

**Installation Size (Acreage):** 56000

**City:** Augusta

**County:** Richmond County

**State:** Georgia

## Other Locale Information

Fort Gordon (FTGD) is situated in east-central Georgia approximately nine miles southwest of Augusta and occupies slightly more than 56,000 contiguous acres in Jefferson, McDuffie, Columbia and Richmond counties. The majority of FTGD is in Richmond County. The facility is roughly an oval shape with the primary axis running southwest to northeast. Land use in the immediate area is predominantly rural/agricultural except to the northeast, towards Augusta, where several commercial shops and retail stores are located.

## Installation Mission

The primary mission of FTGD is to train military personnel in the installation, operation, and maintenance of communications and electronic equipment. Fort Gordon is an active US Army facility under the jurisdiction of the IMCOM -Southeast and is the location of the US Army Signal Center.

## Lead Organization

### Lead Executing Agencies for Installation

Investigation phase, RD/action phase executing agency: ARCADIS, General Services Administration (GSA) contractor for the USAEC through the Army Contracting Agency at Aberdeen Proving Ground (APG), MD

### Regulator Participation

**Federal**

US Environmental Protection Agency (USEPA), Region IV

**State**

Georgia Department of Natural Resources, Environmental Protection Division (GAEPD)

### National Priorities List (NPL) Status

FORT GORDON is not on the NPL

### Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status

The community has expressed no sufficient, sustained interest in a RAB.

## Installation Program Summaries

### IRP

**Primary Contaminants of Concern:** Semi-volatiles (SVOC), Volatiles (VOC)

**Affected Media of Concern:** Groundwater, Sediment, Surface Water

### CR

**Primary Contaminants of Concern:** Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

**Affected Media of Concern:** Groundwater, Soil

## 5-Year / Periodic Review Summary

### 5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Complete	200005	200005	2000
Planned	201510	201609	2016

### Last Completed 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
FTGD-006A	FTGD-006A
FTGD-019	FTGD-019
FTGD-020	FTGD-020
FTGD-021	FTGD-021
FTGD-024	FTGD-024
FTGD-024A	FTGD-024A
FTGD-026	FTGD-026
FTGD-027A	FTGD-027A
FTGD-028	FTGD-028
FTGD-038	FTGD-038
Fort Gordon GFPR	FTGD-001
SWMU 006 DRMO Drum Storage Area	FTGD-006
SWMU 010 Former Battery Shop	FTGD-010
SWMU 011 Former Hospital Incinerators	FTGD-011
SWMU 012H Former UST Site	FTGD-012H
SWMU 014	FTGD-014
SWMU 020A 950 & 960 Block Storm Sewers	FTGD-020A
SWMU 025 25th Street Landfill	FTGD-025
SWMU 031 Bldg 984 Photo Waste Sump DRMO	FTGD-031
SWMU 032 WWTP Sludge Stockpile	FTGD-032
SWMU 032A WWTP Sludge Application	FTGD-032A
SWMU 032B WWTP Sludge Application	FTGD-032B
SWMU 035 ICM	FTGD-035
SWMU 036 REMOVAL ACTION AT IMPACT AREA	FTGD-036
SWMU 039 Installation Gas Chamber	FTGD-039
SWMU 040 Former Motorpool POL Sump	FTGD-040
SWMU 041 Former Motorpool POL Sump	FTGD-041
SWMU 042 Former Motorpool POL Sump	FTGD-042
SWMU 043 Former Motorpool POL Sump	FTGD-043

**Results** N/A

**Actions** N/A

**Plans** N/A

#### Recommendations and Implementation Plans:

N/A

## Land Use Control (LUC) Summary

**LUC Title:** SWMU-27

**Site(s):** FTGD-027

**ROD/DD Title:** SWMU-27

**Location of LUC**

3rd Avenue Landfill

**Land Use Restriction:** Landfill restriction - Prohibit activities that would impact the LF cap (or cover system) and drainage system, Landfill restriction - Prohibit excavation on LF cap or cover system, Landfill restriction - Prohibit installation of utility system lines through the site, Landfill restriction - Restrict access to the site, Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Landfill restriction - Restrict plantings that interfere LF cap or cover system (roots that penetrate the cap or cover system), Media specific restriction - Prohibit groundwater extraction that interferes with Remedial Action system, Media specific restriction - Prohibit swimming and/or wading, Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, Media specific restriction - Restrict activities in surface water that result in contact with contaminated bottom sediments such as boating, diving, and swimming, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking water well installation, Media specific restriction - restrict withdrawal or use of groundwater for agricultural/irrigation purposes, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment, Restrict land use - Mitigation area(s) protection, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

**Types of Engineering Controls:** Signs

**Types of Institutional Controls:** Restrictions on land use

**Date in Place:** 201010

**Modification Date:** N/A

**Date Terminated:** N/A

**Inspecting Organization:** State

**Record of LUC:** Master Plan or Equivalent

**Documentation Date:** 200909

**LUC Enforcement:** 5 Year Reviews

**Contaminants:** ORGANICS

**Additional Information**

N/A

# Cleanup Program Summary

## Installation Historic Activity

On Dec. 2, 1941 FTGD was activated as Camp Gordon. It was named for Confederate Lieutenant General John Brown Gordon and was used to train infantry and armor units in World War II (WWII). During that time it also was used as a disciplinary barracks and as a prisoner-of-war camp. Following the war, Camp Gordon served primarily as a US Army personnel center responsible for the discharge of over 85,000 officers and enlisted Soldiers.

In 1948 the Signal Corps Training Center was established at the post. In 1950, the Army's only criminal investigations laboratory in the continental US was constructed here. In 1952, a rehabilitation center and a US disciplinary barracks were formed to confine and retrain military offenders. In 1953 the Basic Replacement Training Center and Advanced Leader's School were formed. These facilities ceased operations in 1955.

On March 21, 1956 Camp Gordon was redesignated Fort Gordon and became a permanent Army installation. In 1957 the US Army Training Center (Basic) was activated at FTGD to provide basic training for Soldiers.

In 1961 combat operations at FTGD resumed when the US Army Training Center Infantry was activated. In 1962 basic training and advanced individual training (AIT) brigades were joined by additional Military Police and AIT brigades. In 1970 the basic and AIT brigades were deactivated.

In June 1962 all activities of the Signal Corps Training Center were reorganized under the US Army Southeast Signal Training School. On July 1, 1975 the 1st Signal Training Brigade was activated and also in that year, basic combat training activities returned to FTGD. In 1978 the US Army Signal Corps and FTGD were reorganized, resulting in the consolidation of all post directorates and staff activities and the Signal School's staff directorates and activities under a single US Army Signal Center directorate staff, including the addition of Directorate of Reserve components.

## Installation Program Cleanup Progress

### IRP

**Prior Year Progress:** The corrective action plan (CAP) was approved at FTGD-009. RFIs for six POL sites were submitted to the GAEPD for review. Expect site closure at industrial cleanup standard with land use controls (LUCs). Completion of the RFI phase and potential removal actions at the skeet range are planned. Addition of new site FTGD-56 the former water standpipe is pending addition to the Part B Permit and will require an RFI as requested by the GAEPD based on the CS study results.

**Future Plan of Action:** Site closure for the POL sites is expected. Addition of new sites is expected. Monitoring will continue at site FTGD-009 and FTGD-027.

### CR

**Prior Year Progress:** The CAP-B for two sites is expected to be completed in fiscal year (FY)12.

Three new CR sites have been added: CCFTGD-56, CCFTGD-57, and CCFTGD-58. Site CCFTGD-56 will be added to the Part B permit and an RFI will be completed for the site. For CCFTGD-57 and -58, CS studies will begin to determine if further actions are needed.

**Future Plan of Action:** Sites CCSWMU-008 and -015 are projected to require CAP B monitoring only plans.

An RFI for CCFTGD-56 and CS studies for CCFTGD-57 and -58 will be completed.

**FORT GORDON**  
**Army Defense Environmental Restoration Program**  
**Installation Restoration Program**

# IRP Summary

**Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count:** 49/40

## Installation Site Types with Future and/or Underway Phases

7	Disposal Pit/Dry Well (FTGD-009, FTGD-047, FTGD-048, FTGD-049, FTGD-050, FTGD-051, FTGD-054)
1	Firing Range (FTGD-046)
1	Landfill (FTGD-027)

## Most Widespread Contaminants of Concern

Semi-volatiles (SVOC), Volatiles (VOC)

## Media of Concern

Groundwater, Sediment, Surface Water

## Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY
FTGD-012H	UST(4) AT BLDG 18806, RECYCLING CENTER	IRA	REMOVAL	1992
FTGD-036	FORMER SMALL ARMS BURNING GROUND	IRA	WASTE REMOVAL - SOILS	1997
FTGD-014	BUILDING 15904, PAST PCB STORAGE	IRA	REMOVAL	2003
FTGD-020A	950'S & 960'S BLOCK STORMWATER SEWERS	IRA	REMOVAL	2003
FTGD-031	BLDG 984 PHOTO WASTE PIT/SUMP (DRMO)	IRA	REMOVAL	2003
FTGD-035	BLDG 2030 PESTICIDE STORAGE AND MIXING	IRA	REMOVAL	2004
FTGD-024	17TH STREET LANDFILL	FRA	NATURAL ATTENUATION	2006
FTGD-036	FORMER SMALL ARMS BURNING GROUND	FRA	REMOVAL	2006
FTGD-001	Ft Gordon GFPR Compilation Site	FRA	OTHER	2007
FTGD-009	BUILDING 955 ELECTROPLATING SUMP	IRA	GROUND WATER TREATMENT	2007
FTGD-026	19TH STREET LANDFILL	IRA	NATURAL ATTENUATION	2007
FTGD-009	BUILDING 955 ELECTROPLATING SUMP	FRA	GROUND WATER TREATMENT	2008
FTGD-027	3RD AVENUE LANDFILL	FRA	NATURAL ATTENUATION	2010
FTGD-009	BUILDING 955 ELECTROPLATING SUMP	FRA	GROUND WATER TREATMENT	2011

## Duration of IRP

**Date of IRP Inception:** 198112

**Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC):** 201310/202209

**Date of IRP completion including Long Term Management (LTM):** 202303

# IRP Contamination Assessment

## Contamination Assessment Overview

A variety of wastes are generated at FTGD, including waste oil, solvents, kerosene, antifreeze, silver nitrate, lithium, mercury, nickel-cadmium batteries, waste acid, lead-based paint, waste paint and paint sludge, polychlorinated biphenyls (PCB) in transformer oil, trichloroethane, trichloroethylene (TCE), plastics, chromic acid, zinc and manganese phosphate, pathological wastes, asbestos, pesticides and herbicides, sanitary wastes and construction debris, sanitary sludge, radiological wastes, lead, and ammunition propellant.

Prior to 1970, contaminated pathological and infectious wastes were disposed of in the landfills on the installation. Human limbs were incinerated in the laundry boiler. After construction of the hospital in 1970, all infectious wastes were disposed of by incineration in the hospital incinerator. Now all pathological wastes are disposed of by a contract through the Dwight D. Eisenhower Army Medical Center.

Prior to 1952, four incinerators were used to burn refuse. Unknown quantities of ash from these operations were spread on the ground. There is no data to indicate the migration of contaminants from these ash piles.

All industrial wastewaters generated at FTGD are currently discharged to the sanitary sewer systems and are treated at the installation's wastewater treatment plant (WWTP). The predominant source of industrial wastewater was from the laundry, which generated approximately 79,250 gallons per day (gal/d), five days per week. The laundry was permanently closed on Oct. 24, 2000. The current major sources of industrial wastewater are vehicle washracks. The average daily industrial wastewater contribution to the WWTP influent is estimated at less than 105,670 gal/d, which is less than 10 percent of the average daily influent.

Until August 1991 approximately 20 gallons per week of waste photographic developing solution containing ammonium dichromate were discharged from the printing plant to a storm drain that discharged to an intermittent stream. Other industrial wastewaters were also discharged to the storm sewer system and ultimately to surface water. These waste streams included wastewater from vehicle washracks and steam condensate from the laundry steam generating plant.

There are six closed sanitary landfills located on FTGD. The most recent, Gibson Road Landfill, closed in December 1996, but a portion of the landfill designated for construction debris is still active. The contents of the older closed landfills are unknown, but are believed to contain sanitary refuse and construction debris. The typical operation activities at the landfills included the trench and area methods of landfilling. In the trench method, soil is excavated out of a trench, the wastes are compacted into the trench, and the excavated soil is used to cover the waste.

In the area method, the waste is spread and compacted on the existing ground surface and cover material is spread and compacted over it. The common depth of the trenches was usually 15 feet below land surface.

In July 1982 the installation assessment was completed and in June 1987 an evaluation of solid waste management units (SWMUs) was conducted by the US Army Environmental Hygiene Agency. This evaluation identified 36 SWMUs. The US Army Environmental Hygiene Agency recommended that a Resource Conservation and Recovery Act (RCRA) facility assessment (RFA) be conducted for the following 18 of the 36 SWMUs:

- FTGD-001B,
- FTGD-001G,
- FTGD-001H,
- FTGD-006,
- FTGD-009,
- FTGD-010,
- FTGD-011,
- FTGD-019,
- FTGD-020,
- FTGD-021,
- FTGD-022,
- FTGD-025,
- FTGD-026,
- FTGD-027,
- FTGD-028,
- FTGD-031,
- FTGD-032, and

# IRP Contamination Assessment

## Contamination Assessment Overview

- FTGD-036.

For reasons unknown, sites FTGD-001B and FTGD-001H, previously identified during the evaluation of SWMUs, were not investigated during the RFA. Site FTGD-020A was added to the RFA for investigation due to the probability of contamination.

FTGD-012H (previously FTGD-001G) was investigated under a separate individual project. The resulting 17 sites investigated during the RFA are included in the list of SWMUs appearing in the expired RCRA Part B Permit, Appendix A.

As a condition of RCRA Part B Permit No. HW-081(S)-2, Section III.C.1, the installation is required to conduct confirmation sampling (CS) or (Section III.D.1) an RCRA facility investigation (RFI) of the SWMUs listed at Appendix A of the permit and any other SWMUs identified subsequent to the RFA. At this time, 15 additional SWMUs have been added to the Installation Restoration Program (IRP) since the original installation RFA requiring RFI activities. In October 1996, a Phase I RFI was completed at the following sites:

- FTGD-006,
- FTGD-009,
- FTGD-010,
- FTGD-011,
- FTGD-019,
- FTGD-020,
- FTGD-020A,
- FTGD-021,
- FTGD-022,
- FTGD-024,
- FTGD-025,
- FTGD-026,
- FTGD-027,
- FTGD-028,
- FTGD-031,
- FTGD-032,
- FTGD-032A,
- FTGD-032B,
- FTGD-036,
- FTGD-037,
- FTGD-038, and
- FTGD-039.

Sites FTGD-019, -022, and -039 were deleted from the Phase I RFI as they are being investigated under separate individual projects.

In December 1995, FTGD and the GAEPD met to discuss the division of SWMUs into operable units (OU). The FTGD and the GAEPD agreed to split the 22 SWMUs into OUs based on the function performed at these SWMUs. Sites FTGD-022 and FTGD-037 were determined by the GAEPD to require NFA.

The following sites were identified for investigation during the Phase II RFI:

- OU I: FTGD-006, FTGD-006A, FTGD-009, FTGD-010, FTGD-020, FTGD-020A, and FTGD-031
- OU II: FTGD-024, FTGD-025, FTGD-026, FTGD-027, and FTGD-028
- OU III: FTGD-011, FTGD-024A, FTGD-027A, FTGD-032, FTGD-032A, and FTGD-032B
- OU IV: FTGD-021, FTGD-036, and FTGD-038.

Sites FTGD-006A, FTGD-024A, and FTGD-027A were added due to contamination upgradient at their respective sites identified during the Phase I RFI. FTGD-014, FTGD-019, FTGD-035, and FTGD-039 have been identified for investigation separately under individual projects.

An RFA was conducted on four former motor pool sites that were listed and approved by the USAEC during the FY00 fall Army

# IRP Contamination Assessment

## Contamination Assessment Overview

Environmental Database - Restoration (AEDB-R) data call to be incorporated into the IRP. These sites are categorized as operable unit OU V.

On Sept. 28, 2000 FTGD received a new RCRA Part B Permit from the GAEPD. These additional 12 sites have been incorporated into FTGDs RCRA Part B Permit:

- FTGD-006A,
- FTGD-014,
- FTGD-024,
- FTGD-024A,
- FTGD-027A,
- FTGD035,
- FTGD-038,
- FTGD-039,
- FTGD-040,
- FTGD-041,
- FTGD-042, and
- FTGD-043.

RFIs at the following eight of the incorporated sites were initiated during the Phase II RFI, received NFAs, and are expected to be removed from the permit during the permit renewal.

- FTGD006A,
- FTGD-014,
- FTGD-024,
- FTGD-024A,
- FTGD-027A,
- FTGD-035,
- FTGD-038, and
- FTGD-039.

Site FTGD-012H has been removed from the RCRA Part B Permit by the GAEPD Hazardous Waste Management Branch because this site is handled by the underground storage tank (UST) management branch of the GAEPD; however, it is response complete (RC).

During FY01, the Training and Doctrine Command (TRADOC) selected the US Army Signal Center and FTGD to undergo a pilot process for the guaranteed fixed price remediation (GFPR) contract mechanism. This pilot was to determine the benefits of privatizing and ensuring the IRP cleanup efforts at a Department of Defense (DoD) active installation. To fully support this effort, TRADOC instructed FTGD to submit all data, maps, installation master plans, utilities maps, and all other IRP documents to AIM Tech Ltd., a Department of Energy (DOE) contractor. AIM Tech conducted site visits and interviews at FTGD to prepare their cost proposal. Headquarters TRADOC also conducted a cost proposal for completion of FTGDs IRP.

Headquarters TRADOC used a team of government personnel to develop the cost proposal. In September 2000, this proposal was presented as an independent government cost estimate. On April 16, 2001 a memorandum of understanding was signed between TRADOC and the DOE. On Sept. 25, 2001 the DOE backed out of the GFPR contract. TRADOC awarded the contract to ARCADIS, Incorporated, through the GSA. All current and future costs with the exception of SWMUs FTGD-040 and FTGD-043 and phases proposed in this IAP have been derived from the reported GSA contract award amount between Headquarters TRADOC and ARCADIS.

The major IRP concerns are delays and the identification of new sites. The regulatory team at the GAEPD has changed. An entirely new team is now in the DoD remediation unit at the GAEPD and this has caused delays with FTGD-009 and FTGD-027 RIP. Additional sampling for FTGD-009 was required in the RFI phase by the new regulatory team. In regard to FTGD-027, there has been a site visit and numerous discussions between FTGD and the GAEPD. Everything is now on track and moving forward.

Seven new sites have been listed as SWMUs by the GAEPD. The GAEPD required CS at each site in accordance with Condition III.C.1 of FTGD's Hazardous Waste permit No. HW-081 (S)-2. FTGD has completed the CS phase for the seven SWMUs. All seven AOCs have been identified as SWMUs by the GAEPD and are Environmental Restoration, Army eligible.

# IRP Contamination Assessment

## Contamination Assessment Overview

Two of the sites are motor pool in-ground sump areas identified by FTGD to the GAEPD in April 2000. Four are also motor pool in-ground sump areas and were identified by FTGD during the building demolition program during 2005. One AOC is the former recreational skeet shooting range identified by the GAEPD in March 2005 during a RCRA inspection.

## Cleanup Exit Strategy

Beginning in FY10, a corrective action plan CAP was approved for FTGD-027; monitored natural attenuation (MNA) sampling is underway.

A CAP was submitted to the GAEPD for FTGD-009 to address the TCE contamination. A successful pilot-scale test demonstrated effectiveness to address TCE contamination and gained approval from the GAEPD for full-scale implementation. This CAP approval is pending a Part B permit modification scheduled to take place in the spring of 2012.

Six petroleum, oil and lubricants (POL) sites and the skeet range are in the RFI phase. Draft RFIs have been submitted to the installation for review. Fort Gordon expects closure with land use controls at FTGD-047, -048, -049, -051, and -054. Remedial actions may be necessary at FTGD-050 to address TCE contamination in subsurface soils.

Removal action is planned for the skeet range (FTGD-046) once the RFI is approved. Additional delineation was needed to fill in data gaps in the RFI.

Three new sites are pending AEC and GAEPD approval: FTGD-56, -57, and -58.

## IRP Previous Studies

Year	Title	Author	Date
1982	Installation Assessment of Fort Gordon, Georgia, Report No. 315	ESE	JUL-1982
1984	Gibson Road Sanitary Landfill, Fort Gordon, Georgia, An Engineering Report	Prepared by Baldwin and Cranston Associates, Inc.	SEP-1984
1986	Geohydrologic Study No. 38-26-0904-86, Fort Gordon, Georgia	US Army Environmental Hygiene Agency	JAN-1986
1987	Interim Final Report, Hazardous Waste Consultation No. 37-26-1379-89, Evaluation of Solid Waste Management Units (SWMUs)	US Army Environmental Hygiene Agency	JUN-1987
1989	Geohydrologic Study No. 38-26-9910-90, RCRA Facility Assessment Sampling Visit, Fort Gordon, Georgia	US Army Environmental Hygiene Agency	JUN-1989
	Environmental Assessment (POL Facility), Fort Gordon, Georgia	Prepared by Dames and Moore.	JUL-1989
	Land Treatment Feasibility Study No. 32-24-0913-90, Fort Gordon, Georgia	US Army Environmental Hygiene Agency.	SEP-1989
1991	Environmental Program Review No. 43-21-7240-91, US Army Signal Center and Fort Gordon, Georgia	US Army Environmental Hygiene Agency.	JAN-1991
	US Army Toxic and Hazardous Material Agency Property Report, Fort Gordon, Georgia	Weston	JAN-1991
	Water Quality Consultation No. 31-62-0142-91, Fort Gordon, Georgia	US Army Environmental Hygiene Agency	JAN-1991
1992	USACE Site Inspection Report No. 91-033. Preliminary Site Inspection for Fort Gordon Military Reservation	Advanced Sciences, Inc.	JAN-1992
	Soil and Groundwater Testing at 15 UST Locations at Fort Gordon, Georgia,	Ebasco Environmental.	OCT-1992
1996	Phase I RFI at FTGD-014 at Fort Gordon, Georgia	Metcalf and Eddy, Inc.	FEB-1996
	Phase I RFI at FTGD-035 at Fort Gordon, Georgia	Metcalf and Eddy, Inc.	SEP-1996
	Phase I RFI at 22 SWMUs at Fort Gordon, Georgia	Ecology and Environment, Inc	OCT-1996
1997	Interim Remedial Action at SWMU 36 at Fort Gordon, Georgia	Horne Engineering, Inc.	AUG-1997
1998	RFA at SWMU 039 at Fort Gordon, Georgia	Savannah District Corps of Engineers.	MAR-1998
	Phase II RFI at Operable Unit I at Fort Gordon, Georgia	Ecology and Environment, Inc.	DEC-1998
1999	Phase II RFI at Operable Unit II at Fort Gordon, Georgia	Ecology and Environment, Inc.	FEB-1999
	Interim Data Summary Report, Supplemental RFI for Operable Unit II at Fort Gordon, Georgia	Ecology & Environment.	FEB-1999

## IRP Previous Studies

1999	Title	Author	Date
	Interim Data Summary Report, Supplemental RFI for Operable Unit I at Fort Gordon, Georgia	Ecology & Environment.	MAR-1999
	RFA at SWMU 039 at Fort Gordon, Georgia	Savannah District Corps of Engineers.	MAR-1999
	Phase II RFI at FTGD-014 at Fort Gordon, Georgia	Metcalf & Eddy, Inc.	APR-1999
	Phase II RFI at FTGD-035 at Fort Gordon, Georgia	Metcalf & Eddy, Inc.	APR-1999
	RFA at SWMUs 040, 041, 042, and 043 (Operable Unit V) at Fort Gordon, Georgia	Savannah District Corps of Engineers	MAY-1999
	Phase II RFI at Operable Unit III at Fort Gordon, Georgia,	Ecology and Environment.	MAY-1999
	Interim Data Summary Report, Supplemental RFI for Operable Unit III at Fort Gordon, Georgia	Ecology & Environment.	MAY-1999
2002	Risk Assessment Strategy Document	Fort Gordon	APR-2002
	RFI Report SWMU 006	Fort Gordon	DEC-2002
	RFI Report SWMU 010	Fort Gordon	DEC-2002
2003	RFI Report SWMU 020	Fort Gordon	JAN-2003
	Master laboratory Report 1994	Fort Gordon	JAN-2003
	Phase I RFI Report Operable Unit V	Fort Gordon	JAN-2003
	Background Soil Data Study	Fort Gordon	JAN-2003
	TSCA Comp. Report - SWMU 014.	Fort Gordon	JAN-2003
	IM Comp. Report - SWMU 014.	Fort Gordon	JAN-2003
	IM Comp. Report - SWMU 031.	Fort Gordon	JAN-2003
	SWMU 006A Mercury Letter.	Fort Gordon	SEP-2003
2004	SWMU 019 RFI Report	Fort Gordon	APR-2004
	SWMU 009 RFI Work plan Revision 1	Fort Gordon	SEP-2004
	SWMU 009 RFI Work plan Addendum	Fort Gordon	SEP-2004
	SWMU 019 RFI Work plan Revision 1	Fort Gordon	SEP-2004
	SWMU 019 RFI Work plan Addendum	Fort Gordon	SEP-2004
	SWMU 006A Supplemental RFI Work plan	Fort Gordon	SEP-2004
	SWMU 020A RFI Work plan	Fort Gordon	SEP-2004
	SWMU 020A RFI Work plan Revision 1	Fort Gordon	SEP-2004
	SWMU 021 RFI Work plan Revision 1	Fort Gordon	SEP-2004
	SWMU 024A RFI Work plan Revision 1	Fort Gordon	SEP-2004
	SWMU 024A RFI Work plan Revision 2	Fort Gordon	SEP-2004

## IRP Previous Studies

2004

Title	Author	Date
SWMU 027 RFI Work plan	Fort Gordon	SEP-2004
SWMU 027 RFI Work plan Revision 1	Fort Gordon	SEP-2004
SWMU 027A RFI Work plan Revision 1	Fort Gordon	SEP-2004
SWMU 032 RFI Work plan Revision 1	Fort Gordon	SEP-2004
SWMU 032B RFI Work plan Revision 1	Fort Gordon	SEP-2004
SWMU 038 RFI Work plan Revision 1	Fort Gordon	SEP-2004
SWMU 039 RFI Work plan Revision 1	Fort Gordon	SEP-2004
SWMU 043 Supplemental RFI Work plan	Fort Gordon	SEP-2004
SWMU 009 Interim Measures Work plan	Fort Gordon	SEP-2004
SWMU 006 RFI Report Revision 2	Fort Gordon	SEP-2004
SWMU 010 RFI Report Revision 1	Fort Gordon	SEP-2004
SWMU 010 RFI Report Revision 2	Fort Gordon	SEP-2004
SWMU 011 RFI Report	Fort Gordon	SEP-2004
SWMU 011 RFI Report Revision 1	Fort Gordon	SEP-2004
SWMU 020 RFI Report Revision 1	Fort Gordon	SEP-2004
SWMU 020 RFI Report Revision 2	Fort Gordon	SEP-2004
SWMU 020A RFI Report	Fort Gordon	SEP-2004
SWMU 025 RFI Report	Fort Gordon	SEP-2004
SWMU 031 RFI Report	Fort Gordon	SEP-2004
SWMU 032 RFI Report	Fort Gordon	SEP-2004
SWMU 032A RFI Report	Fort Gordon	SEP-2004
SWMU 032A RFI Report Revision 1	Fort Gordon	SEP-2004
SWMU 032B RFI Report	Fort Gordon	SEP-2004
SWMU 040 RFI Report	Fort Gordon	SEP-2004
SWMU 041 RFI Report	Fort Gordon	SEP-2004
SWMU 042 RFI Report	Fort Gordon	SEP-2004
Background Soil Data Assessment Report Addendum 3	Fort Gordon	SEP-2004
Surface Water & Sediment Background Study Revision 1	Fort Gordon	SEP-2004
Master Laboratory Report Revision 2	Fort Gordon	SEP-2004
SWMU 035 Interim Measures Completion Report	Fort Gordon	SEP-2004
SWMU 035 Interim Measures Completion Report Revision 1	Fort Gordon	SEP-2004

2005

RFI - SWMU 024A	Fort Gordon	JUL-2005
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## IRP Previous Studies

2005	Title	Author	Date
	SWMU 009 IM Work plan Revision 1	Fort Gordon	SEP-2005
	SWMU 036 IM Work plan	Fort Gordon	SEP-2005
	RFI - SWMU 024	Fort Gordon	SEP-2005
	Master Laboratory Report Revision 3	Fort Gordon	SEP-2005
	SWMU 009 UIC Permit Application	Fort Gordon	SEP-2005
	SWMU 009 UIC Permit Application	Fort Gordon	SEP-2005
	SWMU 021 RFI Report	Fort Gordon	SEP-2005
	SWMU 021 RFI Report Revision 1	Fort Gordon	SEP-2005
	SWMU 024 RFI Report	Fort Gordon	SEP-2005
	SWMU 024A RFI Report	Fort Gordon	SEP-2005
	SWMU 028 RFI Report	Fort Gordon	SEP-2005
	SWMU 028 RFI Report Revision 1	Fort Gordon	SEP-2005
	SWMU 035 RFI Report	Fort Gordon	SEP-2005
	SWMU 035 RFI Report Revision 1	Fort Gordon	SEP-2005
	SWMU 036 RFI Report	Fort Gordon	SEP-2005
	SWMU 036 RFI Report Revision 1	Fort Gordon	SEP-2005
	SWMU 038 RFI Report	Fort Gordon	SEP-2005
2006	SWMU 006A RFI Report Revision 1	Fort Gordon	APR-2006
	SWMU 006A RFI Report	Fort Gordon	APR-2006
	SWMU 027A RFI Report	Fort Gordon	APR-2006
	SWMU 019 RFI Report	Fort Gordon	APR-2006
	RFI - SWMU 026	Fort Gordon	JUN-2006
	IM Report - SWMU 036	Fort Gordon	JUL-2006
	IM Report - SWMU 009	Fort Gordon	OCT-2006
2007	Confirmatory Sampling Report, SWMU-047, 048, 049, 050, 051, and 054	USACE	JAN-2007
	RFI Report, SWMU-027	ARCADIS	APR-2007
	IM Report SWMU-009 RTC Revision I	ARCADIS	MAY-2007
	RFI Report, SWMU-009	ARCADIS	AUG-2007
	Confirmatory Sampling Report, SWMU-046	USACE	AUG-2007
2008	RFI Report, SWMU-027 RTC Revision I	ARCADIS	JAN-2008

## IRP Previous Studies

2008	Title	Author	Date
	RFI Report, SWMU-009 RTC Revision I	ARCADIS	APR-2008
	RFI Report, SWMU-027 Revision II	ARCADIS	JUL-2008
	RFI Report, SWMU-027 30-Year Residential Exposure Scenario Tech Memo	ARCADIS	JUL-2008
	RFI Report, SWMU-009 RTC Revision II	ARCADIS	NOV-2008
	RFI Report, SWMU-009 30-Year Residential Exposure Scenario Tech Memo	ARCADIS	NOV-2008
	RFI Report, SWMU 009 Installation of Intermediate Monitoring Well MW-009-61	ARCADIS	NOV-2008
2010	Technical Memorandum, SWMU 027 Evaluation of Trichloroethene Concentration in Monitoring Well 027-7 as an Indicator of Potential for the 3rd Avenue Landfill to be a Continuing Source	ARCADIS	JAN-2010
	RFI Report, SWMU 009 Installation of Intermediate Zone Monitor Wells MW-009-62 through MW-009-65	ARCADIS	JAN-2010
	RFI Report, SWMU 009 Revision 4	ARCADIS	JAN-2010
	SWMU 027 CAP Revision 1	ARCADIS	MAR-2010
	Pilot Test Work plan	ARCADIS	OCT-2010
2011	SWMU-46 RCRA Facility Investigation Report Revision I, Response to GAEPD Comments	SpecPro	MAR-2011
	RFI Report, SWMU 009 Revision 6	ARCADIS	JUN-2011
	SWMU-09 Corrective Action Plan Revision I	ARCADIS	OCT-2011
	SWMU-27 Corrective Action Plan Progress Report	ARCADIS	NOV-2011
	SWMU-09 Corrective Action Plan Revision II	ARCADIS	DEC-2011
	UST Site 08 Corrective Action Plan Fourth Addendum	SpecPro	DEC-2011
	SWMU Assessment Report for the Water Standpipe at 11th Avenue	Fort Gordon DPW	DEC-2011

# **FORT GORDON**

## **Installation Restoration Program**

### **Site Descriptions**

Site Name: BUILDING 955 ELECTROPLATING SUMP

STATUS

Regulatory Driver: RCRA
RRSE: HIGH
Contaminants of Concern: Volatiles (VOC)
Media of Concern: Groundwater, Surface Water

Table with 3 columns: Phases, Start, End. Rows include RFA, CS, RFI/CMS, DES, IRA, CMI(C), CMI(O), LTM, RIP Date, and RC Date.

SITE DESCRIPTION

Building 955 is located on 10th Street at Brainard Avenue. At one time, this building was used for chrome plating and parkerizing using zinc and magnesium in the course of small arms repair and reconditioning metal parts.

On Oct. 15, 2010 the GAEPD approved the implementation of the SWMU-09 Pilot Test Work Plan. A pilot study began in January 2011. Upon successful implementation of the pilot-scale test, full-scale implementation of the groundwater capture and treatment system was approved by the GAEPD as part of the CAP.

CLEANUP/EXIT STRATEGY

A CAP was submitted to the GAEPD in November 2011. Based on the success of the pilot-scale groundwater extraction and treatment test, the GAEPD has begun the formal process of permit modification to incorporate the CAP into the Part B Hazardous Waste Permit.

The first CAP sampling event is scheduled to occur during spring 2012 and will be repeated on a semiannual basis for the first five years of CAP operation. At a minimum, 10 years of CMI (O) is expected in order to meet remedial goals.

Site ID: FTGD-027

Site Name: 3RD AVENUE LANDFILL

**STATUS**

Regulatory Driver: RCRA

RRSE: HIGH

Contaminants of Concern: Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Sediment, Surface Water

Phases	Start	End
RFA.....	198902.....	198906
CS.....	198902.....	198906
RFI/CMS.....	199310.....	200709
DES.....	200407.....	200709
CMI(C).....	200407.....	200912
CMI(O).....	200407.....	202209

RIP Date: 200912

RC Date: 202209

**SITE DESCRIPTION**

The 3rd Avenue landfill is inactive and is located south of 3d Avenue and east of the 25th Street landfill. They are separated by the unnamed intermittent creek flowing to Mirror Lake. The landfill covers approximately 65 well-wooded acres and slopes to the southwest. Sanitary refuse and construction debris are assumed to have been deposited in the landfill until its closure in 1964. The date operations began is unknown. The Part B permit renewal incorporated approval of the CAP in FY10. It is assumed that SWMU-027 will require 10 years of annual groundwater sampling at 14 monitoring wells to prove MNA (the selected remedy) is continuing to work.

**CLEANUP/EXIT STRATEGY**

Semiannual groundwater sampling and surface water sampling was initiated in August 2004 to determine if MNA was occurring. Both groundwater and surface water are risk drivers at SWMU-27. Analytical results indicate that the contaminant of concern (COC), trichloroethene (TCE) is degrading from TCE to 1,2-dichloroethene, to vinyl chloride, to ethene and then to ethane, which is complete degradation. This proves that natural attenuation is occurring at FTGD-027.

The GAEPD has approved the MNA-based corrective action plan and incorporated the CAP into the Part B Hazardous Waste Permit. Site FTGD-027 will have five years of CMI(O) and all other regulatory requirements covered under the ARCADIS maintenance agreement and extended warranty. MNA sampling is likely to continue for a minimum of 10 years.

Site Name: Fmr Recreational Skeet Shooting Rng

**STATUS**

Regulatory Driver: RCRA

RRSE: LOW

Contaminants of Concern: Metals, Semi-volatiles (SVOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
RFA.....	200503.....	200505
CS.....	200702.....	200711
RFI/CMS.....	200810.....	201209
IRA.....	201202.....	201303

RIP Date: N/A

RC Date: 201309

**SITE DESCRIPTION**

This site of about 26.2 acres was a recreational skeet shooting range which was identified by the GAEPD during a RCRA compliance inspection and subsequently identified on May 10, 2005 as an AOC in accordance with FTGD's Hazardous Waste Facility Permit No. HW-081(S)-2, Section III. Delay in adding this site is due to difficulty securing Operations and Maintenance, Army (OMA) funds for the CS that had to occur and subsequent GAEPD review. On Nov. 9, 2007 the GAEPD identified this site as a SWMU requiring that an RFI be conducted. According to interviews conducted during the SWMU assessment report research and data gathering event, the site was in operation from an unknown date and closed between 1985 and 1986. The primary activity was the use of shotguns and lead shot to shoot skeet thrown from the ground into the air. Site reconnaissance identified lead shot on the surface and migrating out from under the soil as erosion occurs. Large piles of broken skeet have also been identified within the site.

**CLEANUP/EXIT STRATEGY**

An RFI was submitted to the GAEPD and is pending approval. Funding was awarded to remove lead shot and clay pigeons, scheduled to begin in FY12. After completion of the removal action, Fort Gordon expects site closure with land use controls that would restrict residential development and extraction of groundwater at the site.

**Site ID: FTGD-047**

**Site Name: Fmr POL Sump Bldg 13802**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** LOW

Contaminants of Concern: Metals, Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	200004.....	200006
CS.....	200609.....	200711
RFI/CMS.....	200811.....	201212
LTM.....	201303.....	202303

**RIP Date:** N/A

**RC Date:** 201212

**SITE DESCRIPTION**

The Building 13802 sump was identified by FTGD in April 2000 and is estimated at 0.5 acre. An RFA was drafted and submitted to the GAEPD on June 7, 2000. The GAEPD identified the site as an AOC and on Oct. 18, 2004 they required CS. On Nov. 26, 2007 the site was identified by the GAEPD as a SWMU, requiring that an RFI be conducted. According to interviews conducted during the SWMU assessment report research and data gathering event, the site was in operation from an unknown date and was closed by 1986. The primary activity was as a motor pool area with a POL building containing a sump that goes directly to the soil. The storage and possible disposal of POLs and other hazardous wastes into the sump is the primary concern. The RFI fieldwork began in FY10. Draft RFI's and Risk Assessments are pending, and the initial information indicates these sites will be able to be closed using land use controls with industrial cleanup standards. This site will remain on the Part B Permit; however, the land use controls will not prevent the installation from developing like use facilities on the property.

**CLEANUP/EXIT STRATEGY**

The RFI is currently underway and near completion. Preliminary results from the soil borings at the site suggest more extensive contamination than previously assumed, but within the industrial cleanup standards which will allow site closure at industrial standards with land use controls.

Site ID: FTGD-048

Site Name: Fmr POL Sump Bldg 13805

**STATUS**

Regulatory Driver: RCRA

RRSE: LOW

Contaminants of Concern: Metals, Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
RFA.....	200004.....	200006
CS.....	200609.....	200711
RFI/CMS.....	200811.....	201212
LTM.....	201303.....	202303

RIP Date: N/A

RC Date: 201212

**SITE DESCRIPTION**

The Building 13805 sump was identified by FTGD in April 2000 and is estimated at 0.5 acre. On June 7, 2000 an RFA was drafted and submitted to the GAEPD. The GAEPD identified the site as an AOC and on Oct. 18, 2004 they required CS. On Nov. 26, 2007 the site was identified by the GAEPD as a SWMU, requiring that an RFI be conducted. According to interviews conducted during the SWMU assessment report research and data gathering event, the site was in operation from an unknown date and was closed by 1986. The primary activity was as a motor pool area with a POL building containing a sump that goes directly to the soil. The storage and possible disposal of POLs and other hazardous wastes into the sump is the primary concern. The RFI fieldwork began in FY10. Draft RFI's and Risk Assessments are pending, and the initial information indicates these sites will be able to be closed using land use controls with industrial cleanup standards. This site will remain on the Part B Permit; however, the land use controls will not prevent the installation from developing like use facilities on the property.

**CLEANUP/EXIT STRATEGY**

The RFI is currently underway and near completion. Preliminary results from the soil borings at the site suggest more extensive contamination than previously assumed but within the industrial cleanup standards which will allow site closure at industrial standards with land use controls.

**Site ID: FTGD-049**  
**Site Name: Fmr POL Sump Bldg 11813**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** LOW

Contaminants of Concern: Metals, Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	200501.....	200502
CS.....	200609.....	200711
RFI/CMS.....	200811.....	201208
LTM.....	201305.....	202303

**RIP Date:** N/A

**RC Date:** 201304

**SITE DESCRIPTION**

The Building 11813 sump was identified by FTGD in January 2005 during the FTGD WW II wood building deconstruction installation-wide project and is estimated at 5.3 acres. On Feb. 16, 2005 an RFA was drafted and submitted to the GAEPD. The GAEPD identified the site as an AOC and on March 8, 2005 they required CS. On Nov. 26, 2007 the site was identified by the GAEPD as a SWMU, requiring that an RFI be conducted. According to interviews conducted during the SWMU assessment report research and data gathering event, the site was in operation from an unknown date and was closed by 1986. The primary activity was as a motor pool area with a POL building containing a sump that goes directly to the soil. The storage and possible disposal of POLs and other hazardous wastes into the sump is the primary concern. The RFI fieldwork began in FY10.

**CLEANUP/EXIT STRATEGY**

The RFI is currently underway and near completion. Preliminary results from the soil borings at the site suggest more extensive contamination than previously assumed but within the industrial cleanup standards which will allow site closure at industrial standards with land use controls.

Site ID: FTGD-050

Site Name: Fmr POL Sump Bldg 10306

**STATUS**

Regulatory Driver: RCRA

RRSE: LOW

Contaminants of Concern: Metals, Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Soil

Phases	Start	End
RFA.....	200501.....	200502
CS.....	200609.....	200711
RFI/CMS.....	200811.....	201210
DES.....	201211.....	201302
CMI(C).....	201210.....	201304
CMI(O).....	201310.....	201506
LTM.....	201507.....	201607

RIP Date: 201310

RC Date: 201507

**SITE DESCRIPTION**

The Building 10306 sump was identified by FTGD in January 2005 during the FTGD WW-II wood building deconstruction installation-wide project and is estimated at 0.64 acre. On Feb. 16, 2005 an RFA was drafted and submitted to the GAEPD. The GAEPD identified the site as an AOC and on March 8, 2005 they required CS. On Nov. 26, 2007 the site was identified by the GAEPD as a SWMU, requiring that an RFI be conducted. According to interviews conducted during the SWMU assessment report research and data gathering event, the site was in operation from an unknown date and was closed by 1986. The primary activity was as a motor pool area with a POL building containing a two-foot by two-foot by three-foot sump that goes directly to the soil. The storage and possible disposal of POLs and other hazardous wastes into the sump is the primary concern. A Draft RFI has been submitted to the installation for review. Preliminary results from the soil borings at the site suggest more extensive contamination than previously assumed, and that additional remedial activities at the site may be required by the GAEPD to achieve closure.

**CLEANUP/EXIT STRATEGY**

An MNA is expected to begin in FY12 with no other additional work anticipated.

**Site ID: FTGD-051**  
**Site Name: Fmr POL Sump Bldg 985**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** LOW

Contaminants of Concern: Metals, Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	200501.....	200502
CS.....	200609.....	200711
RFI/CMS.....	200811.....	201212
LTM.....	201303.....	202303

**RIP Date:** N/A

**RC Date:** 201212

**SITE DESCRIPTION**

The Building 985 sump was identified by FTGD in January 2005 during the FTGD WW-II wood building deconstruction installation-wide project and is estimated at 0.39 acre. On Feb. 16, 2005 an RFA was drafted and submitted to the GAEPD. The GAEPD identified the site as an AOC and on March 8, 2005 they required CS. On Nov. 26, 2007 the site was identified by the GAEPD as a SWMU, requiring that an RFI be conducted. According to interviews conducted during the SWMU assessment report research and data gathering event, the site was in operation from an unknown date and was closed by 1986. The primary activity was as a motor pool area with a POL building containing a two-foot by two-foot by three-foot sump that goes directly to the soil. The storage and possible disposal of POLs and other hazardous wastes into the sump is the primary concern. The RFI fieldwork began in FY10. Draft RFI's and Risk Assessments are pending, and the initial information indicates these sites will be able to be closed using land use controls with industrial cleanup standards. This site will remain on the Part B Permit; however, the land use controls will not prevent the installation from developing like use facilities on the property.

**CLEANUP/EXIT STRATEGY**

The RFI is currently underway and near completion. Preliminary results from the soil borings at the site suggest more extensive contamination than previously assumed but within the industrial cleanup standards which will allow site closure at industrial standards with land use controls.

**Site ID: FTGD-054**  
**Site Name: Fmr POL Sump Bldg 91701**

**STATUS**

**Regulatory Driver:** RCRA

**RRSE:** LOW

Contaminants of Concern: Metals, Polycyclic Aromatic Hydrocarbons (PAH), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	200501.....	200502
CS.....	200609.....	200711
RFI/CMS.....	200811.....	201212
LTM.....	201303.....	202303

**RIP Date:** N/A

**RC Date:** 201212

**SITE DESCRIPTION**

The Building 91701 sump was identified by FTGD in January 2005 during the FTGD WW-II wood building deconstruction installation-wide project and is estimated at 0.81 acre. On Feb. 16, 2005 an RFA was drafted and submitted to the GAEPD. The GAEPD identified the site as an AOC and on March 8, 2005 they required CS. On Nov. 26, 2007 the site was identified by the GAEPD as a SWMU, requiring that an RFI be conducted. According to interviews conducted during the SWMU assessment report research and data gathering event, the site was in operation from an unknown date and was closed by 1986. The primary activity was as a motor pool area with a POL building containing a two-foot by two-foot by three-foot sump that goes directly to the soil. The storage and possible disposal of POLs and other hazardous wastes into the sump is the primary concern. The RFI fieldwork began in FY10. Draft RFI's and Risk Assessments are pending, and the initial information indicates these sites will be able to be closed using land use controls with industrial cleanup standards. This site will remain on the Part B Permit; however, the land use controls will not prevent the installation from developing like use facilities on the property.

**CLEANUP/EXIT STRATEGY**

The RFI is currently underway and near completion. Preliminary results from the soil borings at the site suggest more extensive contamination than previously assumed but within the industrial cleanup standards which will allow site closure at industrial standards with land use controls.

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTGD-001	Ft Gordon GFPR Compilation Site	201201	
FTGD-004	BLDG 985 DRMO SUMP	199201	No evidence of contamination was found during the original assessment; therefore no further response is planned under the restoration program.
FTGD-006	DRMO DRUM STORAGE AREA	200407	The revised final RFI report was submitted to GA-EPD in August 2003, and received a tentative NFA on July 13, 2004, and is pending final RCRA Permit modification. This site is RC and the five-year warranty deed has been issued by ARCADIS to Fort Gordon.
FTGD-006A	SITE UPGRADIENT TO SWMU 006	200605	A final RFI report was prepared and submitted to the GA-EPD. NFA from GA-EPD May 2, 2006.
FTGD-008	BLDG 964 CHLORINATED SOLVENT EVAP AREA	199201	No evidence of contamination was found during the original assessment; therefore no further response is planned under the restoration program.
FTGD-010	BUILDING 952 OLD BATTERY SHOP	200406	The revised final RFI report was submitted to GA-EPD in August 2003, and received a tentative NFA on June 30, 2004, and is pending final RCRA Permit modification. This site is RC and the five-year warranty deed has been issued by ARCADIS to Fort Gordon.
FTGD-011	INCINERATOR ASH, BLDG 310	200404	The revised final RFI report was submitted to GA-EPD in August 2003, and received a tentative NFA on April 6, 2004, and is pending final RCRA Permit modification. This site is RC and the five-year warranty deed has been issued by ARCADIS to Fort Gordon.
FTGD-012H	UST(4) AT BLDG 18806, RECYCLING CENTER	200103	Per GA EPD, NFA at this site March 28, 2001.
FTGD-013	BLDG 332 LABS	199201	No evidence of contamination was found during the original assessment; therefore no further response is planned under the restoration program.
FTGD-014	BUILDING 15904, PAST PCB STORAGE	200308	The IM completion report was submitted to GA-EPD on May 30, 2003, and received a tentative NFA on August 12, 2003, and is pending final RCRA Permit modification. This site is RC and the five-year warranty deed has been issued by ARCADIS to Fort Gordon.
FTGD-017	BUILDING 961/962 SOLVENT EVAP DISP AREA	199307	No evidence of contamination was found during the original assessment; therefore no further response is planned under the restoration program.
FTGD-019	67TH MOTOR POOL WASH RACK BUILDING 21801	200609	NFA from GA-EPD Aug. 28, 2006.
FTGD-020	BLDG 961 PHOTO WASTEWATER DISCHARGE	200411	NFA was designated for this site by GA-EPD on Nov. 19, 2004.
FTGD-020A	950'S & 960'S BLOCK STORMWATER SEWERS	200412	NFA was designated for this site by GA-

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
			EPD on Dec. 20, 2004.
FTGD-021	WESTERN SMALL ARMS BURNING GROUND	200507	NFA was designated for this site by GA-EPD on July 6, 2005.
FTGD-022	ARTILLERY IMPACT AREA/DEMOLITION GROUND	199703	No further remedial action planned status received from GA-EPD December 1995.
FTGD-023	BLDG 964 PAINT WASTE/THINNER DISCHARGE	199307	No evidence of contamination was found during the original assessment; therefore no further response is planned under the restoration program.
FTGD-024	17TH STREET LANDFILL	200605	NFA granted from GA-EPD May 2, 2006. Ongoing long-term monitoring and landfill cap integrity inspections are expected to be continued under Solid Waste Handling Permit No. 121-010D(SL).
FTGD-024A	SITE UPGRADIENT TO SWMU 024	200509	NFA was designated for this site by GA-EPD on Nov. 28, 2005.
FTGD-025	25TH STREET LANDFILL	200410	NFA was designated for this site by GA-EPD on Oct. 14, 2004.
FTGD-026	19TH STREET LANDFILL	200701	NFA from GA-EPD Jan. 29, 2007.
FTGD-027A	SITE UPGRADIENT OF SWMUS 025/027	200609	NFA from GA-EPD Sept. 12, 2006.
FTGD-028	8TH AVENUE LANDFILL	200510	NFA was designated for this site by GA-EPD on July 28, 2005.
FTGD-029	GIBSON RD NEW LANDFILL (W OF SAWMILL RD)	199307	The site was grandfathered into the Restoration Management Information System (RMIS) program; however, because it is an active site, no further investigation will occur under the IRP. This status may change due to the closing of the landfill. No further response is planned under the IRP at this time.
FTGD-030	WASTEWATER TREATMENT PLANT	199307	The site was grandfathered into the RMIS program; however, because it is an active site, no further investigation will occur under the IRP.
FTGD-031	BLDG 984 PHOTO WASTE PIT/SUMP (DRMO)	200410	NFA was designated for this site by GA-EPD on Oct. 15, 2004.
FTGD-032	WWTP SLUDGE WASTE PILE	200411	NFA was designated for this site by GA-EPD on Nov. 10, 2004.
FTGD-032A	WWTP SLUDGE WASTE PILE	200404	A final RFI report was submitted on Jan. 15, 2004 to the GA-EPD and received a tentative NFA on April 7, 2004, and is pending final RCRA Permit modification. This site is RC and the five-year warranty deed has been issued by ARCADIS to Fort Gordon.
FTGD-032B	WWTP SLUDGE WASTE PILE	200412	NFA was designated for this site by GA-EPD on Dec 20, 2004.
FTGD-033	LAUNDRY BOILER BUILDING 2202	199201	No evidence of contamination was found during the original assessment and the incinerator and building have been removed; therefore, no further response is planned under the restoration program.
FTGD-034	BLDG 2401, VEHICLE MAINT AREA	199307	No evidence of contamination was found during the original assessment; therefore

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
			no further response is planned under the IRP.
FTGD-035	BLDG 2030 PESTICIDE STORAGE AND MIXING	200510	NFA was designated for this site by GA-EPD on Oct. 31, 2005.
FTGD-036	FORMER SMALL ARMS BURNING GROUND	200609	NFA status received from GA-EPD Nov. 30, 2006.
FTGD-037	DEFOLIANT TESTING AREA	199510	NFA status received from GA-EPD.
FTGD-038	MAGAZINE AREA (21 BUNKERS)	200509	NFA was designated for this site by GA-EPD on Sept. 12, 2005.
FTGD-039	GAS CHAMBER	200503	NFA was designated for this site by GA-EPD on March 8, 2005.
FTGD-040	BLDG 22305 MOTORPOOL/POL BUILDING SUMP	200405	The revised final RFI report was submitted to GA-EPD in March 2004, and received a tentative NFA on May 4, 2004, and is pending final RCRA Permit modification.
FTGD-041	BLDG 21306 MOTORPOOL/POL BUILDING SUMP	200405	The revised final RFI report was submitted to GA-EPD in March 2004, and received a tentative NFA on May 4, 2004, and is pending final RCRA Permit modification.
FTGD-042	BLDG 25305 MOTORPOOL/POL BUILDING SUMP	200405	The installation received NFA status from the state on May 4, 2004 and no action is planned under the IRP.
FTGD-043	BLDG 26304 MOTORPOOL/POL BUILDING SUMP	200502	NFA was designated for this site by GA-EPD on Feb. 15, 2005.

# IRP Schedule

Date of IRP Inception: 198112

## Past Phase Completion Milestones

### 1982

RFA (FTGD-014 - BUILDING 15904, PAST PCB STORAGE, FTGD-029 - GIBSON RD NEW LANDFILL (W OF SAWMILL RD), FTGD-035 - BLDG 2030 PESTICIDE STORAGE AND MIXING)  
CS (FTGD-014 - BUILDING 15904, PAST PCB STORAGE)  
PA (FTGD-013 - BLDG 332 LABS, FTGD-017 - BUILDING 961/962 SOLVENT EVAP DISP AREA, FTGD-030 - WASTEWATER TREATMENT PLANT, FTGD-033 - LAUNDRY BOILER BUILDING 2202, FTGD-034 - BLDG 2401, VEHICLE MAINT AREA)

### 1989

CS (FTGD-006 - DRMO DRUM STORAGE AREA, FTGD-009 - BUILDING 955 ELECTROPLATING SUMP, FTGD-010 - BUILDING 952 OLD BATTERY SHOP, FTGD-011 - INCINERATOR ASH, BLDG 310, FTGD-019 - 67TH MOTOR POOL WASH RACK BUILDING 21801, FTGD-024 - 17TH STREET LANDFILL, FTGD-026 - 19TH STREET LANDFILL, FTGD-027 - 3RD AVENUE LANDFILL, FTGD-028 - 8TH AVENUE LANDFILL, FTGD-036 - FORMER SMALL ARMS BURNING GROUND)  
SI (FTGD-020 - BLDG 961 PHOTO WASTEWATER DISCHARGE, FTGD-020A - 950'S & 960'S BLOCK STORMWATER SEWERS, FTGD-021 - WESTERN SMALL ARMS BURNING GROUND, FTGD-022 - ARTILLERY IMPACT AREA/DEMOLITION GROUND, FTGD-025 - 25TH STREET LANDFILL, FTGD-031 - BLDG 984 PHOTO WASTE PIT/SUMP (DRMO), FTGD-032 - WWTP SLUDGE WASTE PILE, FTGD-032A - WWTP SLUDGE WASTE PILE , FTGD-032B - WWTP SLUDGE WASTE PILE )  
PA (FTGD-004 - BLDG 985 DRMO SUMP, FTGD-020 - BLDG 961 PHOTO WASTEWATER DISCHARGE, FTGD-020A - 950'S & 960'S BLOCK STORMWATER SEWERS, FTGD-021 - WESTERN SMALL ARMS BURNING GROUND, FTGD-022 - ARTILLERY IMPACT AREA/DEMOLITION GROUND, FTGD-025 - 25TH STREET LANDFILL, FTGD-031 - BLDG 984 PHOTO WASTE PIT/SUMP (DRMO), FTGD-032 - WWTP SLUDGE WASTE PILE, FTGD-032A - WWTP SLUDGE WASTE PILE , FTGD-032B - WWTP SLUDGE WASTE PILE )  
RFA (FTGD-001 - Ft Gordon GFPR Compilation Site, FTGD-006 - DRMO DRUM STORAGE AREA, FTGD-009 - BUILDING 955 ELECTROPLATING SUMP, FTGD-010 - BUILDING 952 OLD BATTERY SHOP, FTGD-011 - INCINERATOR ASH, BLDG 310, FTGD-019 - 67TH MOTOR POOL WASH RACK BUILDING 21801, FTGD-024 - 17TH STREET LANDFILL, FTGD-026 - 19TH STREET LANDFILL, FTGD-027 - 3RD AVENUE LANDFILL, FTGD-028 - 8TH AVENUE LANDFILL, FTGD-036 - FORMER SMALL ARMS BURNING GROUND)

### 1992

SI (FTGD-004 - BLDG 985 DRMO SUMP, FTGD-008 - BLDG 964 CHLORINATED SOLVENT EVAP AREA, FTGD-013 - BLDG 332 LABS, FTGD-017 - BUILDING 961/962 SOLVENT EVAP DISP AREA, FTGD-023 - BLDG 964 PAINT WASTE/THINNER DISCHARGE, FTGD-030 - WASTEWATER TREATMENT PLANT, FTGD-033 - LAUNDRY BOILER BUILDING 2202, FTGD-034 - BLDG 2401, VEHICLE MAINT AREA, FTGD-037 - DEFOLIANT TESTING AREA, FTGD-038 - MAGAZINE AREA (21 BUNKERS), FTGD-039 - GAS CHAMBER)  
PA (FTGD-008 - BLDG 964 CHLORINATED SOLVENT EVAP AREA, FTGD-023 - BLDG 964 PAINT WASTE/THINNER DISCHARGE, FTGD-037 - DEFOLIANT TESTING AREA, FTGD-038 - MAGAZINE AREA (21 BUNKERS), FTGD-039 - GAS CHAMBER)  
IRA (FTGD-012H - UST(4) AT BLDG 18806, RECYCLING CENTER)  
CS (FTGD-012H - UST(4) AT BLDG 18806, RECYCLING CENTER, FTGD-029 - GIBSON RD NEW LANDFILL (W OF SAWMILL RD), FTGD-035 - BLDG 2030 PESTICIDE STORAGE AND MIXING)  
RFA (FTGD-012H - UST(4) AT BLDG 18806, RECYCLING CENTER)

### 1996

CS (FTGD-006A - SITE UPGRADIENT TO SWMU 006, FTGD-027A - SITE UPGRADIENT OF SWMUS 025/027)  
SI (FTGD-024A - SITE UPGRADIENT TO SWMU 024)  
RI/FS (FTGD-022 - ARTILLERY IMPACT AREA/DEMOLITION GROUND, FTGD-037 - DEFOLIANT TESTING AREA)  
PA (FTGD-024A - SITE UPGRADIENT TO SWMU 024)  
RFA (FTGD-006A - SITE UPGRADIENT TO SWMU 006, FTGD-027A - SITE UPGRADIENT OF SWMUS 025/027)

### 1997

IRA (FTGD-036 - FORMER SMALL ARMS BURNING GROUND)

### 2000

PA (FTGD-040 - BLDG 22305 MOTORPOOL/POL BUILDING SUMP, FTGD-041 - BLDG 21306)

## IRP Schedule

	MOTORPOOL/POL BUILDING SUMP, FTGD-042 - BLDG 25305 MOTORPOOL/POL BUILDING SUMP, FTGD-043 - BLDG 26304 MOTORPOOL/POL BUILDING SUMP)
SI	(FTGD-040 - BLDG 22305 MOTORPOOL/POL BUILDING SUMP, FTGD-041 - BLDG 21306 MOTORPOOL/POL BUILDING SUMP, FTGD-042 - BLDG 25305 MOTORPOOL/POL BUILDING SUMP, FTGD-043 - BLDG 26304 MOTORPOOL/POL BUILDING SUMP)
RFA	(FTGD-047 - Fmr POL Sump Bldg 13802, FTGD-048 - Fmr POL Sump Bldg 13805)
<b>2001</b>	
RFI/CMS	(FTGD-012H - UST(4) AT BLDG 18806, RECYCLING CENTER)
<b>2003</b>	
IRA	(FTGD-014 - BUILDING 15904, PAST PCB STORAGE, FTGD-020A - 950'S & 960'S BLOCK STORMWATER SEWERS, FTGD-031 - BLDG 984 PHOTO WASTE PIT/SUMP (DRMO))
RFI/CMS	(FTGD-014 - BUILDING 15904, PAST PCB STORAGE)
<b>2004</b>	
RFI/CMS	(FTGD-006 - DRMO DRUM STORAGE AREA, FTGD-010 - BUILDING 952 OLD BATTERY SHOP, FTGD-011 - INCINERATOR ASH, BLDG 310)
RI/FS	(FTGD-032A - WWTP SLUDGE WASTE PILE , FTGD-040 - BLDG 22305 MOTORPOOL/POL BUILDING SUMP, FTGD-041 - BLDG 21306 MOTORPOOL/POL BUILDING SUMP, FTGD-042 - BLDG 25305 MOTORPOOL/POL BUILDING SUMP)
IRA	(FTGD-035 - BLDG 2030 PESTICIDE STORAGE AND MIXING)
<b>2005</b>	
RFA	(FTGD-046 - Fmr Recreational Skeet Shooting Rng, FTGD-049 - Fmr POL Sump Bldg 11813, FTGD-050 - Fmr POL Sump Bldg 10306, FTGD-051 - Fmr POL Sump Bldg 985, FTGD-054 - Fmr POL Sump Bldg 91701)
RI/FS	(FTGD-020 - BLDG 961 PHOTO WASTEWATER DISCHARGE, FTGD-020A - 950'S & 960'S BLOCK STORMWATER SEWERS, FTGD-021 - WESTERN SMALL ARMS BURNING GROUND, FTGD-024A - SITE UPGRADIENT TO SWMU 024, FTGD-025 - 25TH STREET LANDFILL, FTGD-031 - BLDG 984 PHOTO WASTE PIT/SUMP (DRMO), FTGD-032 - WWTP SLUDGE WASTE PILE, FTGD-032B - WWTP SLUDGE WASTE PILE , FTGD-038 - MAGAZINE AREA (21 BUNKERS), FTGD-039 - GAS CHAMBER, FTGD-043 - BLDG 26304 MOTORPOOL/POL BUILDING SUMP)
RFI/CMS	(FTGD-036 - FORMER SMALL ARMS BURNING GROUND)
<b>2006</b>	
CMI(C)	(FTGD-024 - 17TH STREET LANDFILL, FTGD-036 - FORMER SMALL ARMS BURNING GROUND)
RFI/CMS	(FTGD-006A - SITE UPGRADIENT TO SWMU 006, FTGD-019 - 67TH MOTOR POOL WASH RACK BUILDING 21801, FTGD-024 - 17TH STREET LANDFILL, FTGD-027A - SITE UPGRADIENT OF SWMUS 025/027, FTGD-028 - 8TH AVENUE LANDFILL, FTGD-035 - BLDG 2030 PESTICIDE STORAGE AND MIXING)
DES	(FTGD-024 - 17TH STREET LANDFILL)
<b>2007</b>	
DES	(FTGD-009 - BUILDING 955 ELECTROPLATING SUMP, FTGD-027 - 3RD AVENUE LANDFILL)
RFI/CMS	(FTGD-009 - BUILDING 955 ELECTROPLATING SUMP, FTGD-026 - 19TH STREET LANDFILL, FTGD-027 - 3RD AVENUE LANDFILL)
CMI(C)	(FTGD-001 - Ft Gordon GFPR Compilation Site)
IRA	(FTGD-009 - BUILDING 955 ELECTROPLATING SUMP, FTGD-026 - 19TH STREET LANDFILL)
<b>2008</b>	
CS	(FTGD-046 - Fmr Recreational Skeet Shooting Rng, FTGD-047 - Fmr POL Sump Bldg 13802, FTGD-048 - Fmr POL Sump Bldg 13805, FTGD-049 - Fmr POL Sump Bldg 11813, FTGD-050 - Fmr POL Sump Bldg 10306, FTGD-051 - Fmr POL Sump Bldg 985, FTGD-054 - Fmr POL Sump Bldg 91701)
<b>2010</b>	
CMI(C)	(FTGD-027 - 3RD AVENUE LANDFILL)

# IRP Schedule

2011

CMI(C) (FTGD-009 - BUILDING 955 ELECTROPLATING SUMP)

## Projected Phase Completion Milestones

See attached schedule

## Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates

Site ID	Site Name	ROD/DD Title	ROD/DD Date
FTGD-001	Ft Gordon GFPR Compilation Site	Fort Gordon GFPR	20120930

Final RA(C) Completion Date: 201304

Schedule for Next Five-Year Review: 2016

Estimated Completion Date of IRP at Installation (including LTM phase): 202303

## FORT GORDON IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTGD-009	BUILDING 955 ELECTROPLATING SUMP	CMI(O)						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTGD-027	3RD AVENUE LANDFILL	CMI(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTGD-046	Fmr Recreational Skeet Shooting Rng	IRA						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTGD-047	Fmr POL Sump Bldg 13802	RFI/CMS						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTGD-048	Fmr POL Sump Bldg 13805	RFI/CMS						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTGD-049	Fmr POL Sump Bldg 11813	LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTGD-050	Fmr POL Sump Bldg 10306	RFI/CMS						
		DES						
		CMI(C)						
		CMI(O)						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTGD-051	Fmr POL Sump Bldg 985	RFI/CMS						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
FTGD-054	Fmr POL Sump Bldg 91701	RFI/CMS						
		LTM						

**FORT GORDON**  
**Army Defense Environmental Restoration Program**  
**Compliance Restoration**

## CR Summary

**Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count:** 6/1

### Installation Site Types with Future and/or Underway Phases

- 1 Above Ground Storage Tank  
(CCFTGD-56)
- 1 Mixed Waste Area  
(CCFTGD-57)
- 2 Soil Contamination After Tank Removal  
(CCSWMU-008, CCSWMU015)
- 1 Training and Maneuver Area  
(CCFTGD-58)

### Most Widespread Contaminants of Concern

Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

### Media of Concern

Groundwater, Soil

### Completed Remedial Actions (Interim Remedial Actions/ Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY
CCSWMU01 5	UST SITE 15 (#1380 - 9121067)	IRA	FREE PRODUCT RECOVERY	2005
CCSWMU01 5	UST SITE 15 (#1380 - 9121067)	FRA	REMOVAL	2009
CCSWMU01 5	UST SITE 15 (#1380 - 9121067)	FRA	BIOREMEDIATION - IN SITU	2009

### Duration of CR

**Date of CR Inception:** 199202

**Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC):** 201412/201412

**Date of CR completion including Long Term Management (LTM):** 202101

# CR Contamination Assessment

## Contamination Assessment Overview

A significant number of USTs were used on Fort Gordon for the storage of gasoline, diesel, used oil, and heating fuel and ranged in size from 500 gallons to 232,000 gallons. When the federal regulations were changed requiring tanks to meet upgrade and/or replacement standards, all tanks not meeting the new standards were permanently closed. With the exception of two tanks, which were closed in place, all other tanks not meeting current standards have been removed. During the course of tank removal, soil samples were taken and contamination was discovered. The process of release investigation and confirmation began.

The former storage area was used for a number of years (until 1998) for storing electrical transformers, powerline wire, power poles, etc. During a compliance evaluation inspection in 1998, prior to the vacating of this area, a number of violations were noted. As a result, the GAEPD required that a CS work plan be submitted. Sample results indicated the presence of PCBs, VOCs and semi-volatile organic compounds (SVOCs) in the soil.

The Gibson Road Landfill began operations as the installation municipal solid waste landfill (MSWLF) in 1985. Due to the implementation of new Subtitle D requirements, the landfill stopped accepting municipal waste in 1998. The existing solid waste permit was modified at that time to allow operation of the landfill for construction and demolition debris. Through routine groundwater monitoring performed in accordance with the solid waste permit, it was discovered that groundwater leaving the site contained VOCs and metals from the municipal fill.

As a condition of RCRA Part B Permit #HW-081(S)-2, Section III.C.1, the installation is required to conduct CS or under Section III.D.1, an RFI of the SWMUs listed at Appendix A of the permit and any other SWMUs identified subsequent to the RFA. There are two compliance restoration (CR) sites which transitioned to the Installation Restoration (IR) program in FY10: CCSWMU-008 and CCSWMU015.

## Cleanup Exit Strategy

The installation expects that the GAEPD UST Division will request CAP B monitoring-only plans for sites CRSWMU-08 and CRSWMU-15 in FY12-13. Two years of semiannual monitoring are expected for both of these former UST sites, followed by closure. Three CR sites were added in FY12: CCFTGD-56, CCFTGD-57, and CCFTGD-58. An RFI will be conducted at CCFTGD-56 and CS at the other two new sites. Results of those investigations will determine subsequent actions.

## CR Previous Studies

**Title**

**Author**

**Date**

There are no Previous Studies

**FORT GORDON**  
**Compliance Restoration**  
**Site Descriptions**

**Site ID: CCFTGD-56**  
**Site Name: Water Standpipe**

**STATUS**

**Regulatory Driver:** RCRA  
**Contaminants of Concern:** Metals  
**Media of Concern:** Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	201110.....	201110
CS.....	201112.....	201201
RFI/CMS.....	201212.....	201312
IRA.....	201401.....	201405
LTM.....	201601.....	202101
<b>RIP Date:</b>	N/A	
<b>RC Date:</b>	201406	

**SITE DESCRIPTION**

The Fort Gordon water standpipe was built in 1941 and was used to store drinking water for the installation. The tank is being demolished and there is lead surface and subsurface soil contamination above action levels.

**CLEANUP/EXIT STRATEGY**

An RFI will be completed prior to soliciting an NFA decision from the GAEPD. If NFA is approved, this site will be removed from the Part B permit. If not removed from the permit, land use controls will be utilized at the site to obtain response complete.

**Site ID: CCFTGD-57**

**Site Name: Installation Railhead Area**

## STATUS

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern: Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	200902.....	201010
CS.....	201212.....	201312

**RIP Date:** N/A

**RC Date:** 201412

## SITE DESCRIPTION

In conjunction with the U.S. Geological Service (USGS), Fort Gordon assessed soil, soil gas, surface water, and ground water for the presence of contaminants at the Installation Railhead Area (IRA) from October 2008 to September 2009. Elevated soil-gas concentrations of total petroleum hydrocarbons (TPH), benzene, toluene, ethyl benzene, and xylenes (BTEX) were detected in localized areas of the IRA. Elevated soil gas concentrations of PCE and detections in groundwater were also discovered at the western edge of the IRA. Perchloroethylene (PCE) was detected in two of three groundwater monitoring wells installed as part of the project with the highest concentration reaching 3.5 PPB. Detections of carbon disulfide, TCE, and cis-1,2-DCE were also present in the wells.

The IRA consists of a rail yard, warehouses, and various support infrastructures with an extent of roughly 20 acres. It was mainly used from the 1940s to the 1970s to support installation activities. Since then, the IRA has been modified extensively to accommodate changes in the Army's operations over time at Fort Gordon.

The effect of past activities on environmental resources across the majority of the IRA site is currently unknown; however, based upon limited evidence from the USGS study, further investigation is needed. Also, due to the proximity of the groundwater monitoring wells that tested positive for PCE and TCE to the installation boundary and the former dry cleaning facility which is located adjacent to the railhead, further delineation of the contaminants is recommended.

## CLEANUP/EXIT STRATEGY

The effect of past activities are largely unknown across the Installation Railhead Area. Based on limited evidence provided by the USGS, further delineation of the subsurface soils and groundwater is recommended. Upon completion of the proposed SI study, a determination will be made by the GAEPD if additional investigation and corrective measures are needed.

**Site ID: CCFTGD-58**  
**Site Name: Vietnam Armor Training Area**

**STATUS**

**Regulatory Driver:** RCRA

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC)

Media of Concern: Groundwater, Soil

<b>Phases</b>	<b>Start</b>	<b>End</b>
RFA.....	200902.....	201012
CS.....	201212.....	201312

**RIP Date:** N/A

**RC Date:** 201412

**SITE DESCRIPTION**

In conjunction with the U.S. Geological Service (USGS), Fort Gordon assessed soil, soil gas, and ground water for the presence of contaminants at the Vietnam Armor Training Facility (VATF) from October 2009 to September 2010. In addition to soil gas sampling across the site, passive ground water sampling was performed at four existing monitoring wells at the site. Each well indicated the presence of benzene, octane, decane and total petroleum hydrocarbons (TPH). Concentrations in ground water ranged from 700 PPB to 4,400 PPB for TPH and 25 PPB to 37 PPB for benzene.

The site is currently being used as the Fort Gordon Fish and Wildlife Program Storage yard. The site includes several buildings, a parking area, and a washrack with built in drainage. An initial investigation at the site was warranted because little historical information about the past activities and use at the site was available. Aerial photos indicated a robust training facility during the Vietnam era. Additionally, the site is located in the outcrop area for the Cretaceous-age aquifer system which is used for drinking water further downgradient. There is also potable water well adjacent to the site in close proximity to the contaminated monitoring wells which the natural resources branch still uses for various projects across the installation.

**CLEANUP/EXIT STRATEGY**

Results of the CS study will be evaluated to determine if further actions are required.

**Site ID: CCSWMU-008**  
**Site Name: UST SITE 8 (#49300-1210079)**

**STATUS**

**Regulatory Driver:** RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

<b>Phases</b>	<b>Start</b>	<b>End</b>
ISC.....	199202.....	199301
INV.....	199302.....	199308
CAP.....	199405.....	201009
IMP(C).....	201001.....	201409
IMP(O).....	201110.....	201410
<b>RIP Date:</b>	201409	
<b>RC Date:</b>	201410	

**SITE DESCRIPTION**

The Army, Air Force Exchange Services (AAFES) Gate 5 Gas Station/Shopette was constructed in 1976 and has been in operation since 1977. Three, 10,000-gallon USTs were installed during the original construction for the storage of regular, unleaded and premium gasoline. In 1987 leak tests were conducted by Central States Bridge Co, Inc. and results indicated that all three tanks were leaking; however, monthly loss reports did not support the results. During 1991, soil samples taken from depths of one to 20 feet showed petroleum contaminants were present in the soil. In 1992, three borings and three monitoring wells were installed. Soil samples were found to be free of contaminants, but samples from all three wells contained dissolved benzene in excess of regulatory levels and one sample contained excessive lead and toluene. The USTs were removed in August 1992 by Anderson Columbia and approximately 180 cubic yards of contaminated soil were removed. Sampling from the tank excavation area showed contaminants to be present, particularly total petroleum hydrocarbon (TPH). Expanded site characterization conducted in 1994 by Ebasco Environmental Inc. showed soil and groundwater contamination. A CAP was prepared in May 1994 and submitted to GAEPD. A technical review of the CAP was done and additional work was required as well as a CAP addendum. During a road construction project, groundwater monitoring wells for this site were destroyed which necessitated plugging and abandoning of the wells and installation of new wells.

In June 2005, four damaged wells were permanently closed and five new groundwater monitoring wells were installed and sampled. Two wells were installed in the former UST cavity area and three were perimeter wells. Contamination levels from sampling indicated benzene at 4600 parts per million (ppm), xylene at 1700 ppm, ethylbenzene at 561 ppm and methyl tertiary butyl ether (MTBE) at 2,189 ppm. Soil contamination still exists.

Additional monitoring wells have been installed. An addendum to the CAP A was submitted in November 2009 to GAEPD. Comments received from GAEPD in January 2010 required that seven additional monitoring wells be installed. Based on the results of the CAP A, a CAP B monitoring only plan will likely be requested by the GAEPD UST Division. Once approved, the installation expects two years of semiannual groundwater monitoring to achieve site closure.

**CLEANUP/EXIT STRATEGY**

Based on the results of the CAP A, a CAP B monitoring only plan will likely be requested by the GAEPD UST Division. Once approved, the installation expects two years of semiannual groundwater monitoring to achieve site closure.

Site ID: CCSWMU015

Site Name: UST SITE 15 (#1380 - 9121067)

### STATUS

Regulatory Driver: RCRA  
Contaminants of Concern: Petroleum, Oil and Lubricants (POL)  
Media of Concern: Groundwater

Phases	Start	End
ISC.....	199206.....	199210
INV.....	199302.....	199305
CAP.....	199309.....	200901
IRA.....	200404.....	200503
IMP(C).....	200709.....	200909
IMP(O).....	200909.....	201208
LTM.....	201309.....	201409
<b>RIP Date:</b>	200909	
<b>RC Date:</b>	201309	

### SITE DESCRIPTION

This site has been the location of the Troop Motor Pool (TMP) since the early-1970s. GSA was also located in the vicinity for a period of time. One 1,000-gallon diesel tank and one 900-gallon gasoline tank were located within this site for fueling military vehicles. The diesel tank was removed in 1992 and the gasoline tank was removed in 1991. Soil and groundwater contamination exists as well as free-product.

This site is the location of the TMP and is approximately 350 feet by 250 feet. There were originally two USTs, one diesel and one gasoline. Tank integrity tests discovered that the tanks were leaking. Tanks were subsequently taken out of service and later removed in 1991 and 1992. Free-product is present and requires corrective action. Currently, socks are being used to absorb free-product. A complete round of groundwater samples will be taken to evaluate the extent of dissolved-phase contamination and the adequacy of the existing groundwater well system. New monitoring wells will likely have to be installed, developed and sampled and a CAP-B prepared and submitted to the GAEPD. Sampling parameters, number of samples and remediation method were compiled by comparison to historical UST work performed at FTGD and UST Management (GAEPD) Rule 391-3-15.

A contract was awarded to facilitate additional removal of free-product. After this action, a CAP B monitoring only plan should be requested by the GAEPD and two years of semiannual groundwater monitoring will be completed to achieve site closure.

### CLEANUP/EXIT STRATEGY

After this action, a CAP B monitoring only plan should be requested by the GAEPD and two years of semiannual groundwater monitoring will be completed to achieve site closure.

## Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
CCSWMU-53	UST SITE 53 (#34300-1210078)	201009	NFA letter from GAEPD UST div.

## CR Schedule

**Date of CR Inception:** 199202

### **Past Phase Completion Milestones**

#### **1993**

INV (CCSWMU-008 - UST SITE 8 (#49300-1210079), CCSWMU015 - UST SITE 15 (#1380 - 9121067))

ISC (CCSWMU-008 - UST SITE 8 (#49300-1210079), CCSWMU015 - UST SITE 15 (#1380 - 9121067))

#### **1996**

ISC (CCSWMU-53 - UST SITE 53 (#34300-1210078))

#### **2005**

IRA (CCSWMU015 - UST SITE 15 (#1380 - 9121067))

#### **2009**

IMP(C) (CCSWMU015 - UST SITE 15 (#1380 - 9121067))

INV (CCSWMU-53 - UST SITE 53 (#34300-1210078))

CAP (CCSWMU015 - UST SITE 15 (#1380 - 9121067))

#### **2010**

CAP (CCSWMU-008 - UST SITE 8 (#49300-1210079), CCSWMU-53 - UST SITE 53 (#34300-1210078))

#### **2011**

RFA (CCFTGD-57 - Installation Railhead Area, CCFTGD-58 - Vietnam Armor Training Area)

### **Projected Phase Completion Milestones**

See attached schedule

### **Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates**

To Be Determined

**Final RA(C) Completion Date:** 201409

**Schedule for Next Five-Year Review:** 2016

**Estimated Completion Date of CR at Installation (including LTM phase):** 202101

## FORT GORDON CR Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTGD-56	Water Standpipe	RFI/CMS						
		IRA						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTGD-57	Installation Railhead Area	CS						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCFTGD-58	Vietnam Armor Training Area	CS						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCSWMU-008	UST SITE 8 (#49300-1210079)	IMP(C)						
		IMP(O)						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCSWMU015	UST SITE 15 (#1380 - 9121067)	LTM						

## Community Involvement

**Technical Review Committee (TRC):** None

**Community Involvement Plan (Date Published):** 200409

**Restoration Advisory Board (RAB):** No

**Reason Not Established:** The community has expressed no sufficient, sustained interest in a RAB.

**Community Interest Solicited on:** 201104

### **Efforts Taken to Determine Interest**

Fort Gordon published a public involvement plan for the ongoing work under the IRP and published a public notice in the Augusta Chronicle, the local area newspaper, soliciting interest in a RAB. This public notice was run from April 6-8, 2011.

### **Results**

Five citizens expressed interest in a RAB. Information gained from FTGD's community relations plan indicates that there is not sufficient community interest in establishing a RAB at this time.

### **Follow-up Procedures**

TBD

### **Additional Community Involvement Information**

TBD

### **Administrative Record is located at**

US Army Garrison, Environmental Division, Bldg. 14600, Fort Gordon, GA 30905.  
706-791-6129 or x 2511

### **Information Repository is located at**

US Army Garrison, Environmental Division, Bldg. 14600, Fort Gordon, GA 30905.  
706-791-6129 or x 2511

The Augusta-Richmond County Library  
823 Telfair St  
Augusta, GA 30901  
(706) 821-2600

**Current Technical Assistance for Public Participation (TAPP):**N/A

**TAPP Title:** N/A

**Potential TAPP:** TBD

