

FY2015

FORT BRAGG

Army Defense Environmental Restoration Program

Installation Action Plan

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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 Installation Management Command (IMCOM), the US Army Environmental Command (USAEC), Fort Bragg, the executing agencies, regulatory agencies, and the public, an IAP was completed. The IAP is used to track requirements, schedules, and tentative budgets for all major Army installation cleanup programs.

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

Acronyms

AAF	Army Airfield
AAFES	Army and Air Force Exchange Service
ACSIM	Assistant Chief of Staff for Installation Management
AEDB-CC	Army Environmental Database - Compliance-related Cleanup
AEDB-R	Army Environmental Database - Restoration
AFB	Air Force Base
AFVR	Aggressive Fluid Vapor Recovery
AHS	Airport Hydrant System
AOC	Area of Concern
ASP	Ammunition Supply Point
AST	Aboveground Storage Tank
bgs	below ground surface
Bldg	Building
BMP	Base Master Plan
BRAC	Base Realignment and Closure
BTEX	Benzene, Toluene, Ethylbenzene, and Xylene
C&D	Construction and Demolition
CAP	Corrective Action Plan
CC	Compliance-related Cleanup
CLIN	Contract Line Item Number
CMI	Corrective Measures Implementation
CMI(C)	Corrective Measures Implementation (Construction)
CMI(O)	Corrective Measures Implementation (Operations)
CMI(P)	Corrective Measures Implementation (Plan)
CMS	Corrective Measures Study
COCO	Contractor Owned/Contractor Operated
CR	Compliance Restoration
CS	Confirmatory Sampling
CSA	Comprehensive Site Assessment
CTC	Cost-to-Complete
cy	cubic yard
DD	Decision Document
DEH	Directorate of Engineering and Housing
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DOT	Department of Transportation
DPT	Direct-Push Technology
DPW	Directorate of Public Works
DRO	Diesel-Range Organics
ENRD	Environmental and Natural Resources Division
EPH	Extractable Petroleum Hydrocarbons
ER	Emergency Removal
ER,A	Environmental Restoration, Army
FORSCOM HQ	Forces Command Headquarters
FRA	Final Remedial Action

Acronyms

FS	Feasibility Study
ft	feet
FY	Fiscal Year
GCL	Gross Contamination Limits
GIS	Geographical Information System
GRO	Gasoline Range Organics
GW	Groundwater
HC	petroleum hydrocarbons
HRC	Hydrogen-Release Compound
IAP	Installation Action Plan
IC	Institutional Controls
IMCOM-SE	Installation Management Command-Southeast
IMP(O)	Implementation (Operation)
INV	Investigation
IR	Installation Restoration
IRA	Interim Remedial Action
IRP	Installation Restoration Program
JP-4	Jet Propellant Number 4
JP-8	Jet Propellant Number 8
kg	kilogram
LF	Landfill
LNAPL	Light Non-Aqueous Phase Liquid
LSA	Limited Site Assessment
LTM	Long-Term Management
LUC	Land Use Control
MADEP	Massachusetts Department of Environmental Protection
MEC	Munitions and Explosives of Concern
mg	milligram
MICC	Mission and Installation Contracting Command
MILCON	Military Construction
MIP	Membrane Interface Probe
MMRP	Military Munitions Response Program
MNA	Monitored Natural Attenuation
MOGAS	Motor Gasoline
MR	Munitions Response
MSCC	Maximum Soil Constituent Contamination
MSW	Municipal Solid Waste
MTBE	methyl tert-butyl ether
MW	Monitoring Well
MWR	Morale, Welfare, and Recreation
N/A	Not Applicable
NC	North Carolina
NC 2L	15A NCAC 02L.0202 Groundwater Quality Standard
NCDENR	North Carolina Department of Environment and Natural Resources
NFA	No Further Action

Acronyms

NORR	Notice of Regulatory Requirement
NPL	National Priorities List
NRP	Notice of Residual Petroleum
O&M	Operations and Maintenance
ODUSD(I&E)	Office of the Deputy Under Secretary of Defense for Installations & Environment
OK	Oklahoma
OU	Operable Unit
OWS	Oil/Water Separator
PAH	Polycyclic Aromatic Hydrocarbon
PBA	Performance-Based Acquisition
PBC	Performance-Based Contract
PCB	Polychlorinated Biphenyl
PCE	Tetrachloroethylene
POL	Petroleum, Oils, and Lubricants
POP	period of performance
ppm	parts per million
RA	Remedial Action
RA(O)	Remedial Action (Operations)
RAB	Restoration Advisory Board
RBC	Risk Based Concentration
RC	Response Complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy-in-Place
ROD	Record of Decision
RRSE	Relative Risk Site Evaluation
RSL	Regional Screening Level
SAAF	Simmons Army Airfield
SAR	Soil Assessment Report
SC	Signal Corps
SCM	Site Conceptual Model
SI	Site Inspection
SSL	Soil Screening Level
SVE	Soil Vapor Extraction
SVOC	Semi-Volatile Organic Compound
SWMU	Solid Waste Management Unit
TAL	target analyte list
TAPP	Technical Assistance for Public Participation
TCE	Trichloroethylene
TEMF	Tactical Equipment Maintenance Facility
TMP	Transportation Motor Pool
TPH	Total Petroleum Hydrocarbons

Acronyms

TRC	Technical Review Committee
ug/L	micrograms per liter
USACE	US Army Corps of Engineers
USAEC	US Army Environmental Command
USEPA	US Environmental Protection Agency
USGS	US Geological Survey
UST	Underground Storage Tank
VI	Vapor Intrusion
VOC	Volatile Organic Compound
VPH	volatile petroleum hydrocarbons
VTTA	Vocational Technical Training Area
WWII	World War II
WWTP	Wastewater Treatment Plant

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)

Site Alias List

AEDB-R Site ID to Alias List

AEDB-R #	Alias
CCFTBR-H	AOC-H
CCFTBR0011	OU6
CCFTBR0013	POL Point1
CCFTBR0015	BLD 6-9344
CCFTBR0016	POL Point2
CCFTBR0017	BLD 8-5476
CCFTBR0019	BLD A-3686
CCFTBR0021	BLD C-3515
CCFTBR0024	BLD D-2340
CCFTBR0027	BLD M-2125
CCFTBR0037	SAAF Hydrt
CCFTBR0038	BLD A-2709
CCFTBR0039	BLD 2-1251
CCFTBR0043	BLD D-1402
CCFTBR0044	WWTP Fluor
CCFTBR0046	BLD 2-1549
CCFTBR0048	BLD 2-3627
CCFTBR0067	BLD C-9224
CCFTBR0068	BLD D-1926
CCFTBR0074	Cook Wrhse
CCFTBR0080	BLD 4-3124
CCFTBR0089	BLD J-1303
CCFTBR0097	BLD 2-1731
CCFTBR0098	BLD C-8727
CCFTBR0100	21st CMP
CCFTBR0103	BLD 3-2147
CCFTBR0310	TU506
CCFTBR0312	TU508
CCFTBR0313	TU500
CCFTBR0314	TU501
CCFTBR0323	BLD 708
CCFTBR0324	OT533
CCFTBR0328	TU512
FTBR-001	SWMU 1
FTBR-004	SWMUs 4&18
FTBR-005	SWMU 5
FTBR-008	SWMUs8abcd
FTBR-008-R-01	Frag Field
FTBR-009	SWMU 9
FTBR-009-R-01	Mag Area
FTBR-010-R-01	Pistol Rng
FTBR-011-R-01	Range 6
FTBR-012	SWMU 12

Site Alias List

FTBR-012-R-01	Pope ASP
FTBR-014	SWMU2,14ab
FTBR-063	SWMU 63
FTBR-069	SWMU 69
FTBR-103	SWMU 103
FTBR-300	LF005
FTBR-301	LF006
FTBR-302	LF010
FTBR-303	LF012
FTBR-304	SS009
FTBR-305	SS018
FTBR-306	FT001
FTBR-307	PL505
FTBR-308	SS007
FTBR-309	SS014
FTBR-310	SS019
FTBR-311	SS020
FTBR-312	SS516
FTBR-313	ST002
FTBR-314	ST008

Installation Information

Installation Locale

Installation Size (Acreage): 162000

City: Fayetteville

County: Cumberland, Hoke, Harnett, Moore

State: North Carolina (NC)

Other Locale Information

Fort Bragg is located on 162,000 acres of land in south-central NC; it is approximately 50 miles south of Raleigh. The facility is part of Cumberland, Hoke, Harnett, and Moore counties, and abuts the cities of Fayetteville and Spring Lake. It includes Pope Army Airfield (AAF) and Simmons AAF.

Installation Mission

Fort Bragg is an active US Army installation serving as the major logistics, training, and mobilization deployment center for the XVIII Airborne Corps, 82nd Airborne Division and a wide variety of Army and Joint Special Operations Forces. The installation also houses Army Forces Command, Army Reserve Command and numerous rapidly deployable military units. Fort Bragg's primary mission is the training of airborne and special operations forces. Broadly categorized, ongoing operations at Fort Bragg include general maintenance and repair, land management, utility systems operation and commercial activities.

Lead Organization

IMCOM

Lead Executing Agencies for Installation

USAEC

Regulator Participation

Federal

US Environmental Protection Agency (USEPA), Region IV

State

North Carolina Department of Environment and Natural Resources (NCDENR)

National Priorities List (NPL) Status

FORT BRAGG 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: Explosives, Metals, Pesticides, Petroleum, Oil and Lubricants (POL), Polychlorinated Biphenyls (PCB), Semi-volatiles (SVOC), Volatiles (VOC)

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

MMRP

Primary Contaminants of Concern: Explosives, Metals, Munitions and explosives of concern (MEC), Munitions constituents (MC)

Affected Media of Concern: Building Decontamination, Soil

Installation Information

CR

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

Affected Media of Concern: Groundwater, Soil

5-Year / Periodic Review Summary

5-Year / Periodic Review Summary

Status	Start Date	End Date	End FY
Complete	201207	201409	2014
Complete	200810	200904	2009
Planned	201707	201909	2019

Last Completed 5-Year / Periodic Review Details

Associated ROD/DD Name	Sites
CCFTBR0011 Decision Document	CCFTBR0011
CCFTBR0011 Decision Document	CCFTBR0011
CCFTBR0013 Corrective Action Plan	CCFTBR0013
CCFTBR0013 Corrective Action Plan	CCFTBR0013
CCFTBR0015 Corrective Action Plan	CCFTBR0015
CCFTBR0015 Corrective Action Plan	CCFTBR0015
CCFTBR0017 Corrective Action Plan	CCFTBR0017
CCFTBR0017 Corrective Action Plan	CCFTBR0017
CCFTBR0019 Notice of Residual Petroleum	CCFTBR0019
CCFTBR0019 Notice of Residual Petroleum	CCFTBR0019
CCFTBR0021 Notice of Residual Petroleum	CCFTBR0021
CCFTBR0021 Notice of Residual Petroleum	CCFTBR0021
CCFTBR0022 Corrective Action Plan	CCFTBR0022
CCFTBR0022 Corrective Action Plan	CCFTBR0022
CCFTBR0024 Notice of Residual Petroleum	CCFTBR0024
CCFTBR0024 Notice of Residual Petroleum	CCFTBR0024
CCFTBR0027 Notice of Residual Petroleum	CCFTBR0027
CCFTBR0027 Notice of Residual Petroleum	CCFTBR0027
CCFTBR0037 Corrective Action Plan	CCFTBR0037
CCFTBR0037 Corrective Action Plan	CCFTBR0037
CCFTBR0038 Comprehensive Site Assessment	CCFTBR0038
CCFTBR0038 Comprehensive Site Assessment	CCFTBR0038
CCFTBR0043 Notice of Residual Petroleum	CCFTBR0043
CCFTBR0043 Notice of Residual Petroleum	CCFTBR0043
CCFTBR0046 Notice of Residual Petroleum	CCFTBR0046
CCFTBR0046 Notice of Residual Petroleum	CCFTBR0046
CCFTBR0048 Notice of Residual Petroleum	CCFTBR0048
CCFTBR0048 Notice of Residual Petroleum	CCFTBR0048
CCFTBR0067 Notice of Residual Petroleum	CCFTBR0067
CCFTBR0067 Notice of Residual Petroleum	CCFTBR0067
CCFTBR0068 Notice of Residual Petroleum	CCFTBR0068
CCFTBR0068 Notice of Residual Petroleum	CCFTBR0068
CCFTBR0098 Corrective Action Plan	CCFTBR0098
CCFTBR0098 Corrective Action Plan	CCFTBR0098
FTBR-001 Decision Document	FTBR-001
FTBR-001 Decision Document	FTBR-001
FTBR-004 Decision Document	FTBR-004
FTBR-004 Decision Document	FTBR-004
FTBR-005 Decision Document	FTBR-005
FTBR-005 Decision Document	FTBR-005
FTBR-008 Decision Document	FTBR-008

5-Year / Periodic Review Summary

Associated ROD/DD Name	Sites
FTBR-008 Decision Document	FTBR-008
FTBR-009 Decision Document	FTBR-009
FTBR-009 Decision Document	FTBR-009
FTBR-012 Decision Document	FTBR-012
FTBR-012 Decision Document	FTBR-012
FTBR-014 Decision Document	FTBR-014
FTBR-014 Decision Document	FTBR-014
FTBR-063 Decision Document	FTBR-063
FTBR-063 Decision Document	FTBR-063
FTBR-069 CMS/CMIP	FTBR-069
FTBR-069 CMS/CMIP	FTBR-069
FTBR-103 CMS/CMIP	FTBR-103
FTBR-103 CMS/CMIP	FTBR-103
FTBR-300 Record of Decision	FTBR-300
FTBR-300 Record of Decision	FTBR-300
FTBR-301 Record of Decision	FTBR-301
FTBR-301 Record of Decision	FTBR-301
FTBR-302 Record of Decision	FTBR-302
FTBR-302 Record of Decision	FTBR-302
FTBR-303 Record of Decision	FTBR-303
FTBR-303 Record of Decision	FTBR-303
FTBR-304 Record of Decision	FTBR-304
FTBR-304 Record of Decision	FTBR-304
FTBR-305 Record of Decision	FTBR-305
FTBR-305 Record of Decision	FTBR-305
FTBR-306 Notice of Residual Petroleum	FTBR-306
FTBR-306 Notice of Residual Petroleum	FTBR-306
FTBR-308 Corrective Action Plan	FTBR-309
FTBR-308 Corrective Action Plan	FTBR-309
FTBR-309 Notice of Residual Petroleum	FTBR-309
FTBR-309 Notice of Residual Petroleum	FTBR-309
FTBR-310 Corrective Action Plan	FTBR-310
FTBR-310 Corrective Action Plan	FTBR-310
FTBR-311 Notice of Residual Petroleum	FTBR-311
FTBR-311 Notice of Residual Petroleum	FTBR-311
FTBR-312 Corrective Action Plan	FTBR-312
FTBR-312 Corrective Action Plan	FTBR-312
FTBR-313 Notice of Residual Petroleum	FTBR-313
FTBR-313 Notice of Residual Petroleum	FTBR-313
FTBR-314 Corrective Action Plan	FTBR-314
FTBR-314 Corrective Action Plan	FTBR-314

Results 5YR: No issues identified during 5YR that would affect the protectiveness of the remedy. Remedies at the 5YR sites are protective of human health and the environment.
 PR: Remedies at these sites are protective of human health and the environment.

Actions 5YR: FTBR-305 MW 18M13 destroyed.
 PR: FTBR-306 to be redeveloped. FTBR-309, 313 MWs still in place; scheduled for abandonment. AFVR site

5-Year / Periodic Review Summary

Actions MWs replaced with 4" recovery MWs. CCFTBR0098 increasing product thickness. Surface debris/tires at FTBR-012.

Plans 5YR: Replace MW 18M13.

PR: Update new land use FTBR-306 remedy. Abandon FTBR-309, 313 MWs. AFVR sites compare 4" MW fuel recovery for effectiveness. Potential new/on-going sources of free product at CCFTBR0098. Remove FTBR-012 surface tires.

Recommendations and Implementation Plans:
The next five-year review/periodic review is scheduled for 2019.

Land Use Control (LUC) Summary

LUC Title: CCFTBR0080

Site(s): CCFTBR0080

ROD/DD Title: CCFTBR0080 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, on the north side of Loop Road, near Building 4-2924.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201305

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PAH, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: CCFTBR0097

Site(s): CCFTBR0097

ROD/DD Title: CCFTBR0097 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, east of Armistead Road, between Woodruff Street and Macomb Street at Building 2-1731.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201305

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PAH, PETROLEUM HYDROCARBON, VOC

Land Use Control (LUC) Summary

Additional Information

N/A

LUC Title: CCFTBR0310

Site(s): CCFTBR0310

ROD/DD Title: CCFTBR0310 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, at the intersection of Maynard, Ethridge, and Academy Streets at Building 322.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201310

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PAH, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: CCFTBR0312

Site(s): CCFTBR0312

ROD/DD Title: CCFTBR0312 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, south of Academy Street, at Virgin Street.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201310

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

Land Use Control (LUC) Summary

LUC Enforcement: Annual Inspections

Contaminants: PAH, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: CCFTBR0313

Site(s): CCFTBR0313

ROD/DD Title: CCFTBR0313 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, east of Armistead Street, at Pope Avenue. A delineated wetland lies to the east of the site.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201310

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PAH, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: CCFTBR0314

Site(s): CCFTBR0314

ROD/DD Title: CCFTBR0314 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, south of the Booster and Surveyor Street intersection at Building 707.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201310

Modification Date: N/A

Date Terminated: N/A

Land Use Control (LUC) Summary

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PAH, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: FTBR-307

Site(s): FTBR-307

ROD/DD Title: FTBR-307 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, southwest of the intersection of Boxcar Street and Ethridge Street.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201310

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PAH, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: Groundwater use restrict

Site(s): FTBR-069

ROD/DD Title: FTBR-069 CMS/CMIP

Location of LUC

The LUC is for the area within the isoconcentration line above the North Carolina 2L standard for chlorinated solvents.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Land Use Control (LUC) Summary

Date in Place: 200803

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200803

LUC Enforcement: Annual Inspections, 5 Year Reviews, Other

Contaminants: VOC

Additional Information

N/A

LUC Title: LUC at SWMU 8, FTBR-008

Site(s): FTBR-008

ROD/DD Title: FTBR-008 Decision Document

Location of LUC

Located in the cantonment area, generally bounded on the east by Knox Street, on the west by the All American Freeway, on the south by Gruber Road, and on the north by the railroad marshalling yard.

Land Use Restriction: Landfill restriction - Prohibit excavation on LF cap or cover system, Landfill restriction - Restrict access to the site, Landfill restriction - Restrict vehicular traffic, Media specific - Prohibit activities that results in contact with contaminated sediments, Media specific restriction - Prohibit swimming and/or wading, Media specific restriction - Prohibit, or otherwise manage excavation, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 200411

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200411

LUC Enforcement: Annual Inspections, 5 Year Reviews, Other

Contaminants: PAH, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: LUC at SWMU 9, FTBR-009

Site(s): FTBR-009

ROD/DD Title: FTBR-009 Decision Document

Land Use Control (LUC) Summary

Location of LUC

Located in the cantonment area, bounded on the north by the railroad marshalling yard, on the west by Honeycutt Road, and on the south and east by storm water drainage features.

Land Use Restriction: Landfill restriction - Prohibit excavation on LF cap or cover system, Landfill restriction - Restrict access to the site, Landfill restriction - Restrict vehicular traffic, Media specific - Prohibit activities that results in contact with contaminated sediments, Media specific restriction - Prohibit swimming and/or wading, Media specific restriction - Prohibit, or otherwise manage excavation, 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, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 200411

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200411

LUC Enforcement: Annual Inspections, 5 Year Reviews, Other

Contaminants: INORGANICS, METALS, PCBs, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: LUC for CCFTBR0019

Site(s): CCFTBR0019

ROD/DD Title: CCFTBR0019 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, south of Gruber Road, at Lewis Street. A delineated wetland lies to the east of the site.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201107

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

Land Use Control (LUC) Summary

LUC Enforcement: Annual Inspections

Contaminants: PAH, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: LUC for CCFTBR0024

Site(s): CCFTBR0024

ROD/DD Title: CCFTBR0024 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, south of Gruber Road, at Messina and Mederet Streets. Big Branch Creek lies south of the site, and flows south-southwest.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201107

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: VOC

Additional Information

N/A

LUC Title: LUC for FTBR-063

Site(s): FTBR-063

ROD/DD Title: FTBR-063 Decision Document

Location of LUC

Located within the Directorate of Public Works (DPW) compound.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, 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

Types of Engineering Controls: None

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 200411

Modification Date: N/A

Land Use Control (LUC) Summary

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200411

LUC Enforcement: Annual Inspections, 5 Year Reviews, Other

Contaminants: METALS, PESTICIDES, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: LUC for FTBR-306 (FT001)

Site(s): FTBR-306

ROD/DD Title: FTBR-306 Notice of Residual Petroleum

Location of LUC

Located on Pope Army Airfield, in the cantonment area of Fort Bragg, along Hurst Drive and west of Malvesti Street. The western half of the NRP site contains two delineated wetland areas.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 200908

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200908

LUC Enforcement: Annual Inspections

Contaminants: PAH, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: LUC for SWMU 1

Site(s): FTBR-001

ROD/DD Title: FTBR-001 Decision Document

Location of LUC

Located in the cantonment area on the south side of Gruber Road near the intersection of Gruber and Zabitosky. The SWMU is bordered on the east by a north-south drainage ditch and on the south by an intermittent northwest-southwest tributary to Big Branch Creek.

Land Use Restriction: Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Media specific restriction - Prohibit, or otherwise manage excavation, 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

Land Use Control (LUC) Summary

agricultural/irrigation purposes, Media specific restriction - restrict withdrawal or use of groundwater w/out treatment, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 200306

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200306

LUC Enforcement: Annual Inspections, 5 Year Reviews, Other

Contaminants: METALS, VOC

Additional Information

N/A

LUC Title: LUC for SWMU 103

Site(s): FTBR-103

ROD/DD Title: FTBR-103 CMS/CMIP

Location of LUC

The site is located west of South Lucas Street, and bordered on the north by Honeycutt Road. The restrictions apply to groundwater and surface water.

Land Use Restriction: Media specific restriction - Prohibit fishing except for recreational purposes (catch and release), 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 - 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

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 200803

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200803

LUC Enforcement: Annual Inspections, 5 Year Reviews, Other

Contaminants: VOC

Additional Information

N/A

Land Use Control (LUC) Summary

LUC Title: LUC for SWMU 5

Site(s): FTBR-005

ROD/DD Title: FTBR-005 Decision Document

Location of LUC

Abandoned landfill located in the cantonment area of Fort Bragg in the vicinity of Knox and Honeycutt Road, north and east of the Earth Terminal complex.

Land Use Restriction: Landfill restriction - Prohibit activities that would impact the LF cap (or cover system) and drainage system, Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Media specific restriction - Prohibit, or otherwise manage excavation, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 200306

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200306

LUC Enforcement: Annual Inspections, 5 Year Reviews, Other

Contaminants: METALS, VOC

Additional Information

N/A

LUC Title: LUC for SWMUs 2 & 14

Site(s): FTBR-014

ROD/DD Title: FTBR-014 Decision Document

Location of LUC

Abandoned landfills 2 and 14 are located south and west of the intersection of Cook Drive and Knox Street near the south border of the cantonment area.

Land Use Restriction: Landfill restriction - Prohibit excavation on LF cap or cover system, Landfill restriction - Restrict access to the site, Landfill restriction - Restrict vehicular traffic, Media specific - Prohibit activities that results in contact with contaminated sediments, Media specific restriction - Prohibit, or otherwise manage excavation, 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, Restrict land use - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 200312

Modification Date: N/A

Date Terminated: N/A

Land Use Control (LUC) Summary

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200312

LUC Enforcement: Annual Inspections, 5 Year Reviews, Other

Contaminants: METALS, VOC

Additional Information

N/A

LUC Title: LUC for SWMUs 4 & 18

Site(s): FTBR-004

ROD/DD Title: FTBR-004 Decision Document

Location of LUC

Located in the cantonment area, south of Fire Station #1 on Knox Street. The SWMU is bounded on the east and south by Beaver Creek, on the west by Knox Street, and on the north by Honeycutt Road.

Land Use Restriction: Landfill restriction - Prohibit activities that would impact the LF cap (or cover system) and drainage system, Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Media specific restriction - Prohibit, or otherwise manage excavation, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 200411

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200411

LUC Enforcement: Annual Inspections, 5 Year Reviews, Other

Contaminants: METALS, PESTICIDES, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: LUC of SWMU 12, FTBR-012

Site(s): FTBR-012

ROD/DD Title: FTBR-012 Decision Document

Location of LUC

Located in the cantonment area, generally bounded on the north and west by Young Lake and on the south by Jacob Devers School.

Land Use Restriction: Landfill restriction - Prohibit excavation on LF cap or cover system, Landfill restriction - Restrict access to the site, Landfill restriction - Restrict vehicular traffic, Media specific - Prohibit activities that results in contact with contaminated sediments, Media specific restriction - Prohibit fishing except for recreational

Land Use Control (LUC) Summary

purposes (catch and release), Media specific restriction - Prohibit swimming and/or wading, Media specific restriction - Prohibit, or otherwise manage excavation, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 200309

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: 200309

LUC Enforcement: Annual Inspections, 5 Year Reviews, Other

Contaminants: VOC

Additional Information

N/A

LUC Title: LUCs for CCFTBR0011

Site(s): CCFTBR0011

ROD/DD Title: CCFTBR0011 Decision Document

Location of LUC

Located in the cantonment area of Fort Bragg, east of Lane Street, between Jeep and Rigger Streets.

Land Use Restriction: 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

Types of Engineering Controls: Fences

Types of Institutional Controls: Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 200603

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: VOC

Additional Information

N/A

Land Use Control (LUC) Summary

LUC Title: LUCs for CCFTBR0021

Site(s): CCFTBR0021

ROD/DD Title: CCFTBR0021 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg at the intersection of Gruber Road and Humvee Drive. A delineated wetland lies to the east of the site.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201509

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: LUCs for CCFTBR0027

Site(s): CCFTBR0027

ROD/DD Title: CCFTBR0027 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, north of Quartermaster Street, at Blackstreet Street.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 201107

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Land Use Control (LUC) Summary

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PETROLEUM HYDROCARBON

Additional Information

N/A

LUC Title: LUCs for CCFTBR0043

Site(s): CCFTBR0043

ROD/DD Title: CCFTBR0043 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg at the intersection of Gruber and Reilly Roads.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 201107

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PAH, PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: LUCs for CCFTBR0046

Site(s): CCFTBR0046

ROD/DD Title: CCFTBR0046 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, north of Macomb Street, between Sturgis and Hamilton Streets.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Land Use Control (LUC) Summary

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 201303

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PETROLEUM HYDROCARBON

Additional Information

N/A

LUC Title: LUCs for CCFTBR0048

Site(s): CCFTBR0048

ROD/DD Title: CCFTBR0048 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg at the intersection of Letterman and Armistead Streets.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201107

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: LUCs for CCFTBR0067

Site(s): CCFTBR0067

ROD/DD Title: CCFTBR0067 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, north of TUA V Drive, at the intersection of Yorktown Victor Road and Clover Street.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction -

Land Use Control (LUC) Summary

Prohibit, or otherwise manage excavation below a specified depth, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictive covenants, Zoning

Date in Place: 201211

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: INORGANICS, PAH, PETROLEUM HYDROCARBON

Additional Information

N/A

LUC Title: LUCs for CCFTBR0068

Site(s): CCFTBR0068

ROD/DD Title: CCFTBR0068 Notice of Residual Petroleum

Location of LUC

Located in the cantonment area of Fort Bragg, south of Gruber Road, at Merrill and Funston Streets. An intermittent stream is located south of the site, and flows southward to Big Branch Creek.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 201107

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PETROLEUM HYDROCARBON, VOC

Additional Information

N/A

LUC Title: LUCs for FTBR-300

Land Use Control (LUC) Summary

Site(s): FTBR-300

ROD/DD Title: FTBR-300 Record of Decision

Location of LUC

Located within the boundaries of the Pope Army Airfield, north of Hurst Drive. The site is bisected by Tank Creek.

Land Use Restriction: 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use, Zoning

Date in Place: 201102

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Other Army Entity

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: VOC

Additional Information

N/A

LUC Title: LUCs for FTBR-301

Site(s): FTBR-301

ROD/DD Title: FTBR-301 Record of Decision

Location of LUC

Located on Pope Army Airfield, in the cantonment area of Fort Bragg, north of Hurst Drive at Surveyor Street. A delineated wetland lies north of the site.

Land Use Restriction: 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 201102

Modification Date: N/A

Land Use Control (LUC) Summary

Date Terminated: N/A

Inspecting Organization: Other Army Entity

Record of LUC: Master Plan or Equivalent

Documentation Date: 201102

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: VOC

Additional Information

N/A

LUC Title: LUCs for FTBR-302

Site(s): FTBR-302

ROD/DD Title: FTBR-302 Record of Decision

Location of LUC

Located on Pope Army Airfield, in the cantonment area of Fort Bragg, between Armistead Street and Reilly Road. This site occupies a portion of the former Pope Golf Course. A permanent stream and pond are present on the site.

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 - Restrict access to the site, Landfill restriction - Restrict construction of buildings that may interfere with LF cap or cover system, Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: Fences, Signs

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use, Zoning

Date in Place: 201102

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Other Army Entity

Record of LUC: Master Plan or Equivalent

Documentation Date: 201102

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: METALS, PESTICIDES, VOC

Additional Information

N/A

LUC Title: LUCs for FTBR-303

Site(s): FTBR-303

ROD/DD Title: FTBR-303 Record of Decision

Location of LUC

Located on Pope Army Airfield, in the cantonment area of Fort Bragg, at the intersection of Booster Street and Thunderbolt

Land Use Control (LUC) Summary

Drive. An aboveground water line bisects the site. A detention basin is present on the site.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use, Zoning

Date in Place: 201203

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Other Army Entity

Record of LUC: Master Plan or Equivalent

Documentation Date: 201203

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: METALS, VOC

Additional Information

N/A

LUC Title: LUCs for FTBR-304

Site(s): FTBR-304

ROD/DD Title: FTBR-304 Record of Decision

Location of LUC

Located on and within the Pope Army Airfield, along Hurst Drive. The northern portion of the site contains a delineated wetland.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use, Zoning

Date in Place: 201203

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Other Army Entity

Record of LUC: Master Plan or Equivalent

Documentation Date: 201203

Land Use Control (LUC) Summary

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: PAH, VOC

Additional Information

N/A

LUC Title: LUCs for FTBR-305

Site(s): FTBR-305

ROD/DD Title: FTBR-305 Record of Decision

Location of LUC

Located on Pope Army Airfield, from Fortress Street and Manchester/West Manchester Road, and between Titan and Surveyor Streets. An intermittent stream and delineated wetland are present on the southern portion of the site.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, 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 - No daycare/hospital/school use, Restrict land use - No residential use

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use, Zoning

Date in Place: 201203

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Other Army Entity

Record of LUC: Master Plan or Equivalent

Documentation Date: 201203

LUC Enforcement: Annual Inspections, 5 Year Reviews

Contaminants: METALS, VOC

Additional Information

N/A

LUC Title: LUCs for FTBR-309

Site(s): FTBR-309

ROD/DD Title: FTBR-309 Notice of Residual Petroleum

Location of LUC

Located on Pope Army Airfield, in the cantonment area of Fort Bragg, between Armistead and Virgin Streets. A permanent stream lies west of the site, and flows northward to Tank Creek.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Land Use Control (LUC) Summary

Date in Place: 200808

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PETROLEUM HYDROCARBON

Additional Information

N/A

LUC Title: LUCs for FTBR-311

Site(s): FTBR-311

ROD/DD Title: FTBR-311 Notice of Residual Petroleum

Location of LUC

Located on Pope Army Airfield, in the cantonment area of Fort Bragg, east of Thunderbolt Road.

Land Use Restriction: 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

Types of Engineering Controls: None

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal

Date in Place: 200808

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PETROLEUM HYDROCARBON

Additional Information

N/A

LUC Title: LUCs for FTBR-313

Site(s): FTBR-313

ROD/DD Title: FTBR-313 Notice of Residual Petroleum

Location of LUC

Located on Pope Army Airfield, in the cantonment area of Fort Bragg, along Gena Street, between Hurst Drive and Ethridge Street. A low-lying wetland area is present to the northeast of the site.

Land Use Restriction: Media specific restriction - Prohibit, or otherwise manage excavation, Media specific restriction - Prohibit, or otherwise manage excavation below a specified depth, Media specific restriction - prohibit use of groundwater for consumption or domestic purposes, Media specific restriction - restrict drinking

Land Use Control (LUC) Summary

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

Types of Engineering Controls: Fences

Types of Institutional Controls: Deed Notices, Deed Restrictions, Dig Permits, Notations in Master Plan, Restrictions on Groundwater Withdrawal, Restrictions on land use

Date in Place: 200906

Modification Date: N/A

Date Terminated: N/A

Inspecting Organization: Installation

Record of LUC: Master Plan or Equivalent

Documentation Date: N/A

LUC Enforcement: Annual Inspections

Contaminants: PAH, PETROLEUM HYDROCARBON

Additional Information

N/A

Cleanup Program Summary

Installation Historic Activity

Approximately 11,000 acres (17 square miles) of Fort Bragg comprise the cantonment area, which is located in the eastern part of the installation; this area includes approximately 5,168 buildings. Almost all military maintenance and commercial facilities, supply facilities, operation and training facilities, various community facilities, and family and troop housing are located in this cantonment area. Fort Bragg currently supports a combined military and civilian population of about 154,000. The bulk of the installation's acreage is dedicated to operational areas for field maneuvers, exercises, firing ranges, impact areas, and parachute drop zones.

On Aug. 21, 1918, Camp Bragg was established as a temporary field artillery cantonment on land that was leased with an option to purchase. The design of the initial cantonment area was based on the requirements of two artillery brigades with a total troop strength of around 6,000. In 1922, the Field Artillery Board was transferred from Fort Sill, OK, and Camp Bragg was redesignated Fort Bragg with a primary mission to train troops in the use of artillery. From 1941 to 1946, Fort Bragg was heavily involved in training artillery and airborne troops for World War II (WWII). Troop strength reached over 100,000 during this period. In 1943 Camp Mackall, located in Richmond and Scotland counties and approximately 10 miles west of the southwestern corner of Fort Bragg on approximately 6,600 acres, was purchased and developed as an airborne troop training post. From 1946 to 1951, the 82d Airborne Division was the only large unit at Fort Bragg. During this postwar period, most of Fort Bragg was not in use. Additional purchases of land increased the installation to its present size of approximately 162,000 acres. In 1973 Fort Bragg was assigned to Headquarters, US Army Forces Command, Fort McPherson, Georgia.

In 1988, Fort Bragg applied for a RCRA hazardous waste permit, and as part of the permit process, a RCRA facility assessment (RFA) was completed in 1988. This original RFA identified many of the solid waste management units (SWMU) still active today, as well as many others that have been closed out or not investigated due to no evidence of a release. New sites are added as Fort Bragg continues to remove underground storage tanks (USTs), oil/water separators (OWS), washracks, grease racks, etc.

Installation Program Cleanup Progress

IRP

Prior Year Progress: The performance-based acquisition (PBA) contractor continued the required monitoring for the following sites: FTBR-001, 004, 005, 008, 009, 012, 014, 063, 069, 103, 300, 301, 304, 305, 308, 310, 312, and 314. Work is currently being completed under a PBA contract with Parsons awarded in FY12, with a period of performance (POP) through FY17. An installation-wide five-year review was completed in FY14, for both IR and CR sites. An optimization study was completed in FY14 for the IR sites.

Future Plan of Action: Work will continue under a new PBA contract with the Mission and Installation Contracting Command (MICC), awarded to Bay West in FY14, with a POP through FY17. Remediation/restoration of IR sites will be considered based on results of Optimization Study.

MMRP

Prior Year Progress: No further action (NFA) is required at FTBR-001-R-01.

Future Plan of Action: An SI will be completed for five Military Munitions Response Program (MMRP) sites identified in the 2010 Archive Search Report: FTBR-008-R-01, FTBR-009-R-01, FTBR-010-R-01, FTBR-011-R-01, and FTBR-012-R-01. The SIs will be included in a PBA with Bay West, awarded in FY14, and a POP through FY17.

CR

Prior Year Progress: NFA letters were awarded for 14 remediation sites. Three notices of residual petroleum (NRP) were filed in FY14. Two PBC sites in AEDB-R were completed and closed (PBC@Ft Bragg, and CC PBC@Bragg). Work is currently being completed under a PBA contract with Parsons awarded in FY12, with a POP through FY17. An installation-wide five-year review was completed in FY14, for both IR and Compliance Restoration (CR) sites.

Future Plan of Action: Work will continue under a new PBA contract with the MICC, awarded to Bay West in FY14, with a POP through FY17.

FORT BRAGG
Army Defense Environmental Restoration Program
Installation Restoration Program

IRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 90/65

Installation Site Types with Future and/or Underway Phases

1	Above Ground Storage Tank (FTBR-313)
1	Fire/Crash Training Area (FTBR-306)
11	Landfill (FTBR-001, FTBR-004, FTBR-005, FTBR-008, FTBR-009, FTBR-012, FTBR-014, FTBR-300, FTBR-301, FTBR-302, FTBR-303)
1	Maintenance Yard (FTBR-069)
1	POL (Petroleum/Lubricants) Lines (FTBR-307)
1	Soil Contamination After Tank Removal (FTBR-103)
2	Spill Site Area (FTBR-304, FTBR-305)
1	Storage Area (FTBR-063)
4	Underground Storage Tank (FTBR-309, FTBR-311, FTBR-312, FTBR-314)
2	Underground Tank Farm (FTBR-308, FTBR-310)

Most Widespread Contaminants of Concern

Explosives, Metals, Pesticides, Petroleum, Oil and Lubricants (POL), Polychlorinated Biphenyls (PCB), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern

Groundwater, Sediment, Soil, Surface Water

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

Site ID	Site Name	Action	Remedy	FY
FTBR-306	FT001 Fire Training Area #4	IRA	WASTE REMOVAL - SOILS	1993
FTBR-333	TIRE SHOP WASTE AMCUM POINT	IRA	WASTE REMOVAL - SOILS	1994
FTBR-102	VOCATIONAL TECHNICAL TRAINING AREA	IRA	WASTE REMOVAL - SOILS	1996
FTBR-339	POL/SLUDGE DISPOSAL AREA	IRA	WASTE REMOVAL - SLUDGES	1999
FTBR-063	DEH STORAGE COMPOUND	IRA	WASTE REMOVAL - SOILS	2000
FTBR-313	ST002 POL Bulk Fuel Storage Area	IRA	WASTE REMOVAL - SOILS	2001
FTBR-314	ST008 Base-wide USTs	IRA	BIOVENTING	2001
FTBR-001	ABANDONED LANDFILL 1	FRA	NATURAL ATTENUATION	2003
FTBR-035	OIL/WATER SEPARATORS	IRA	REMOVAL	2003
FTBR-333	TIRE SHOP WASTE AMCUM POINT	IRA	FREE PRODUCT RECOVERY	2003
FTBR-336	BUILDING 158 PUMPHOUSE	IRA	FREE PRODUCT RECOVERY	2003
FTBR-012	ABANDONED LANDFILL 12	FRA	INSTITUTIONAL CONTROLS	2004
FTBR-012	ABANDONED LANDFILL 12	FRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	2004
FTBR-012	ABANDONED LANDFILL 12	FRA	NATURAL ATTENUATION	2004

IRP Summary

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

Site ID	Site Name	Action	Remedy	FY
FTBR-008	ABANDONED LANDFILL 8	FRA	NATURAL ATTENUATION	2005
FTBR-008	ABANDONED LANDFILL 8	FRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	2005
FTBR-009	ABANDONED LANDFILL 9	FRA	PASSIVE TREATMENT WELLS	2005
FTBR-009	ABANDONED LANDFILL 9	FRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	2005
FTBR-014	ABANDONED LANDFILLS 2 & 14	FRA	FENCE OR OTHER SITE ACCESS CONTROL MEASURES	2005
FTBR-014	ABANDONED LANDFILLS 2 & 14	FRA	INSTITUTIONAL CONTROLS	2005
FTBR-314	ST008 Base-wide USTs	IRA	FREE PRODUCT RECOVERY	2006
FTBR-306	FT001 Fire Training Area #4	FRA	SOIL VAPOR EXTRACTION	2007
FTBR-308	SS007 Blue Ramp JP-4 Spill Site	FRA	FREE PRODUCT RECOVERY	2007
FTBR-312	Building 390 Golf Course Maintenance	FRA	FREE PRODUCT RECOVERY	2007
FTBR-063	DEH STORAGE COMPOUND	FRA	NATURAL ATTENUATION	2008
FTBR-069	JEEP DISMANTLING AREA, BLDG 8-3612	FRA	BIOREMEDIATION - IN SITU GROUNDWATER	2008
FTBR-103	MALLONEE VILLAGE GAS STATION	FRA	GROUND WATER TREATMENT	2008
FTBR-309	SS014 Morale, Welfare, and Recreation	FRA	INSTITUTIONAL CONTROLS	2008
FTBR-310	SS019 Pumphouse Building 822	FRA	FREE PRODUCT RECOVERY	2008
FTBR-311	SS020 Silver Ramp Spill Site	FRA	INSTITUTIONAL CONTROLS	2008
PBC @ Ft Bragg	PBA	FRA	BIOREMEDIATION - IN SITU GROUNDWATER	2008
FTBR-069	JEEP DISMANTLING AREA, BLDG 8-3612	FRA	NATURAL ATTENUATION	2009
FTBR-307	PL505 Building 164 Hydrant Fuel Lin	FRA	FREE PRODUCT RECOVERY	2009
FTBR-313	ST002 POL Bulk Fuel Storage Area	FRA	INSTITUTIONAL CONTROLS	2009
FTBR-304	SS009 3rd Aerial Port Squadron Spil	FRA	NATURAL ATTENUATION	2012
FTBR-305	SS018 Liquid Oxygen Area Spill Site	FRA	NATURAL ATTENUATION	2012
FTBR-314	ST008 Base-wide USTs	FRA	INSTITUTIONAL CONTROLS	2012

Duration of IRP

Date of IRP Inception: 198410

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201510/204502

Date of IRP completion including Long Term Management (LTM): 204509

IRP Contamination Assessment

Contamination Assessment Overview

Over time Fort Bragg's diversified activities (vehicle maintenance and repair, land management, utility operations, and commercial processes) resulted in a variety of wastes being generated. These wastes consist primarily of the following:

- Petroleum products
- Pesticides/herbicides
- Paint products
- Antifreeze
- Radiological wastes
- Construction/demolition debris
- Waste acids
- Solvents
- Medical wastes
- Polychlorinated biphenyls (PCB)
- Metals
- Volatile organic compound (VOC)
- Semi-volatile organic compound (SVOC)

In 1988 an RFA was conducted at Fort Bragg and Camp Mackall. Forty-six SWMUs and seven AOCs were identified as having the potential for release of contaminants to the environment. As a consequence of this 1988 RFA report, 31 SWMUs and seven AOCs were listed in Part I of the RCRA Part B permit as requiring RFI studies to characterize these sites for the nature, amount, and extent of contamination. In accordance with the RCRA Part B permit, Fort Bragg identified and evaluated an additional site at the vocational technical training area (VTTA), FTBR-102 and Mallonee Village gas station, FTBR-103, and the abandoned ammunition supply point (ASP), FTBR-104. No SWMUs or AOCs were identified at Camp Mackall.

Currently, there are 25 active sites. Nine sites (FTBR-004, -005, -008, -009, -012, -014, -063, -069, and -103) are in the corrective measures investigation phase, two sites (FTBR-304 and FTBR-305) are in remedial action phase, four sites (FTBR-308, -310, -312, and -314) are in corrective action plan monitoring stage, and 10 sites are remedy-in-place (RIP) with LTM under the Installation Restoration Program (IRP) with 65 RC without LTM sites.

Fort Bragg has no known off-post contamination. Groundwater underlying Fort Bragg was shown to be contaminated with solvents, POL, metals, and pesticides primarily at FTBR-069 and FTBR-103. Groundwater at Fort Bragg is not currently used as a source for drinking water.

There are 11 IRP sites which include 15 landfills and/or cells. The contents of the abandoned landfills are believed to be solid waste, incinerator ash, and/or construction debris. Typical operation activities at the landfills included the trench and area methods. In the trench method, soil is excavated to create a trench, the wastes are compacted into the trench, and the excavated soil is used to cover the waste. The maximum depths of disposal trenches were usually 15 feet below land surface.

The sites listed in this IAP are divided into 10 operable units (OU), spills sites containing four sites (FTBR-305, -305, -308, and -311), and 16 independent sites (FTBR-003, -004, -005, -103, -104, -300, -301, -302, -303, -306, -307, -309, -310, -312, -313, and -314). Environmental Restoration, Army (ER,A) funds are or were used to address sites included in OU1 and OU5. Non-ER,A funds are used to address the sites included in OU6 and OU10. All sites are defined below to include the 10 OUs, four spill sites, and 16 independent sites.

OU1 (FTBR-007, -030, -031, and FTBR-B)

These are located near the 82nd Airborne Division heating plant. In January 1999 OU1 received NFA.

OU2 (FTBR-012 and FTBR-102)

These sites are included in the same OU because of their proximity. In 1996 an RFI was completed at OU2. In 1996 the remedial investigation (RI)/feasibility study (FS) (RFI) report was submitted to the federal and state regulators and it was approved in 1997. On Sept. 14, 2001 NFA for SWMU 102 was received. In January 2004, monitored natural attenuation (MNA) for SWMU 12 began. Groundwater and surface water monitoring is underway.

OU3 (FTBR-014, -008, and -009)

FTBR-014 consists of the former FTBR-002 since FTBR-014 overlies part of FTBR-002, which is near Beaver Creek. FTBR-008 and 009 are included because of their proximity to each other and to Beaver Creek. In 1996 the RFI for OU3 was submitted to regulatory agencies. A corrective measures study (CMS)/remedial design (RD) was completed and an RA was completed in

IRP Contamination Assessment

Contamination Assessment Overview

FY05. LTM is in progress.

OU4 (FTBR-063, -069, E, F, and G)

These sites are in the north central portion of the cantonment area. In June 1999 the final RI/FS (RFI) report for OU4 was submitted to the regulatory agencies. An interim remedial action (IRA) of soil removal was completed at FTBR-063 in FY00. In FY04 a supplemental RFI at FTBR-063 was completed. Remedial action (operations) [RA(O)] began in FY05 and is in progress. An extended RI/FS at FTBR-069 began in FY00. In 2007, the CMS was completed. Performance monitoring of CMI(O) began in 2009, and is in progress. On Sept. 2, 1999 NFA was granted for FTBR-E and for FTBR-G on Sept. 17, 2003. FTBR-F has yet to be investigated.

OU5 (FTBR-001 and FTBR-077)

FTBR-001 is an abandoned landfill encompassing approximately 94 acres. FTBR-077 is the 782d battery shop neutralization sump. NFA for FTBR-077 was received in FY01. A CMS for FTBR-001 was completed in FY03. In September 2003 LTM began and is currently underway.

OU6 (FTBR-016, -086, -088, C, and D)

FTBR-016 was completed with an NFA in April 2003; while sites FTBR-C, and -D were issued NFAs in September 2008. Sites FTBR-086 and -088 have been renamed CCFTBR0011 and are funded under the Compliance-related Cleanup (CC) program.

OU7 [10 sites at the current wastewater treatment plant (WWTP)]

These include FTBR-038 through -040, -042 through -046, -050, and AOC-A. They are funded under the CC program. Site FTBR-050 was issued an NFA in August 2008. The remaining sites in OU7 were completed with an NFA in 2005.

OU8 (170 used oil UST)

These USTs are located throughout the cantonment area (FTBR-033). This OU is considered NFA under the IRP; any future action will be addressed under the CC program.

OU9 (FTBR-35)

FTBR-35 consists of 235 OWS located throughout the cantonment area. It is funded under the CC program.

OU10 (FTBR-036)

FTBR-36 consists of 74, washracks, which are located throughout the cantonment area. The washracks will be sampled with AEDB-CC funds.

INDEPENDENT SITES

FTBR-003, -004, -005, -300, -301, -302, and -303

These consist of abandoned landfills. For sites FTBR-003, -004, -005: an RFI was completed for each site. Based on the results of the RFIs, in FY96 NFA for FTBR-003 was approved by the NCDENR, and a CMS was required for FTBR-004 and -005. In FY04 and FY03, respectively, the CMS for FTBR-004 and -005 were completed. LTM was recommended for groundwater [for VOCs, SVOCs, and POL] and LUCs. LTM of groundwater began in FY05. Sites FTBR-300, and -301 were identified in 1985, with the final RI completed in 2002. A record of decision (ROD) finalized in 2010 for FTBR-300 and -301, recommended biennial sampling. Sites -302 and -303 were discovered in 1985. RIs were completed in 2002, with RODs finalized in 2010. The RODs established biennial sampling. FTBR-302 was also identified in 1985. The RI was completed in 2004. The 2009 FTBR-302 ROD required the maintenance of the landfill cover. A preliminary assessment/site inspection (PA/SI) initiated investigation at FTBR-303 in 1995, with an RI finalized in 2010. The ROD for FTBR-303, completed in 2012, set land restrictions at the site.

FTBR-103

This is the former Mallonee Village gas station. The RFI was completed in FY04. A CMS was completed in FY07. Chlorinated solvents are present in the groundwater. Performance monitoring [CMI(O)] began in 2009, and is currently underway.

FTBR-104

This site was not identified until FY03; it consists of an abandoned ASP. In FY04 white phosphorous grenades were discovered, and a hazardous waste removal action (to remove soils and contamination from the white phosphorous) was completed. An RFI was completed in FY06 and in January 2007 NFA was received from the NCDENR.

IRP Contamination Assessment

Contamination Assessment Overview

Spill Sites (FTBR-304, -305, -308, and -311)

Investigations at FTBR-304 began in 1991, with an RI completed in 1998. A ROD for the site was finalized in 2012 requiring MNA with biennial sampling. Site FTBR-305 began its investigation in 2001. A Phase II RI was performed for the site in 2007, with a ROD in 2012. The ROD requires annual sampling as MNA. Investigations began at FTBR-308 in 2005. A corrective action plan (CAP) was performed in 2005 recommending site sampling. Groundwater sampling is ongoing at this spill site. Site FTBR-311 began site studies in 2004. Cleanup levels below gross contamination limits (GCL), but above 15A NCAC 02L.0202 groundwater quality standard (NC 2L), were reached in 2008 and an NFA by way of NRP was awarded by NCDENR.

FTBR-306

FTBR-306 was used as a fire training site from the 1950s until 1989, with site investigations beginning in 1991. Free-product recovery started in 2004, with a CAP performed in 2004. The CAP recommended soil vapor extraction and air sparging which occurred from 2005-2008. The site was awarded an NFA by NRP from NCDENR in 2009.

UST Cleanup Sites (FTBR-307, FTBR-309, FTBR-310, FTBR-312, FTBR-313, and FTBR-314)

A comprehensive site assessment (CSA) was completed in 2009 for FTBR-307 which recommended aggressive fluid vapor recovery (AFVR). AFVR was performed until 2011, when pre-CAP monitoring began. An NFA by way of NRP was awarded in 2013 by NCDENR. Contamination was discovered during a PA/SI at FTBR-309 in 1985. An RI was completed in 1999 with a limited site assessment (LSA) finalized in 2005. An NRP and NFA were completed in 2009. FTBR-310 was discovered in 1991. A CSA was completed in 2005 when site sampling began and is ongoing. Contamination at FTBR-312 was discovered in 1992. A CSA was performed in 2004 with AFVR and sampling starting at that time. Both are currently in progress at the site. Site investigation activities began at FTBR-312 in 1995 with a PA/SI. Several RI/FS studies were conducted at the site from 1996 through 1999 and in 2002. In that time, an LSA was completed in 2002. The site was finally awarded NFA and NRP in 2009 by NCDENR. Contamination was discovered at FTBR-314 in 1990. A CAP was completed in 2004 with recommended bioventing, passive skimming, and AFVR. All remediation methods are ongoing at the site.

Cleanup Exit Strategy

Site RIP/RC was achieved at all installation IRP sites in FY08, and CMI(O) will continue at all sites. Periodic monitoring is anticipated every one or two years, depending on the site. Please see individual IRP site descriptions for further site-specific details.

IRP Previous Studies

Year	Title	Author	Date
1994	RCRA Facility Investigation. Operable Unit #2 Fort Bragg, North Carolina Volumes I-V	Unknown	AUG-1994
1995	RCRA Facility Investigation, Operable Unit 3	Unknown	FEB-1995
	RCRA Facility Investigation, Operable Unit 2 (Final)	Unknown	JUN-1995
	US Geological Survey Progress Report	Unknown	JUL-1995
	RCRA Facility Investigation, Operable Unit #4 USGS	USGS	AUG-1995
	Baseline Risk Assessment for 525th, Military Intelligence Brigade Barracks	USGS	OCT-1995
	Geohydrologic Study: Investigation of Groundwater, Contamination at AAFES and VTTA	Unknown	NOV-1995
1996	US Army Base Realignment Closure 95 Program, Environmental Baseline Survey Report, Rec Ctr #2	Unknown	APR-1996
	Groundwater Sampling Low-Producing Wells--Fort Bragg, Installation Restoration Program (IRP), North Carolina	Unknown	MAY-1996
	Groundwater Sampling Low-Producing Wells--Fort Bragg, Installation Restoration Program (IRP), North Carolina	Unknown	MAY-1996
	Final RCRA Facility Investigation Report and letter report, addendum for SWMU 3	Unknown	AUG-1996
	Solid Waste Management Unit 5, Final Report and Letter Rpt, Addendum with analytical data	Unknown	AUG-1996
	Solid Waste Management Unit 3 -- Fort Bragg, Concurrence w/USGS recommendation for NFA for SWMU 3	Unknown	SEP-1996
	Final RCRA Facility Investigation Report with letter report addendum for SWMU 5, Fort Bragg, NC	Unknown	SEP-1996
	Corrective Action Management Plan (CAMP) FY 1996	Unknown	SEP-1996
	RCRA Facility Investigation at Operable Unit 3, Fort Bragg	Unknown	DEC-1996
1997	AOC G - UST Closure Report - Request NFA	Earth Tech	JAN-1997
	RCRA Facility Investigation Final Report -- Operable Unit 2 from US EPA	Unknown	FEB-1997
	Corrective Action Plan, Faith Barracks Energy Plant, Fort Bragg, North Carolina	USACE Savannah	APR-1997
1998	RFI at SWMUs 4 and 18 - Final Report. Comments requested for RFI extension	Unknown	DEC-1998
1999	AOC E&F Closure Report, Environmental Division	Unknown	JAN-1999
	RFI Final Report, OU5	USGS	AUG-1999
	RCRA Facility Investigation at Operable Unit 5, Final Report	USGS	AUG-1999
2000			

IRP Previous Studies

	Title	Author	Date
2000	RFI Work Plan for OU6	USACHPPM	JUN-2000
2001	Baseline Risk Assessment for Administrative Closure of Range 70	URS	APR-2001
	Final Letter Report, A-2058 Oil/Water Separator Removal	Horne Engineering Services	MAY-2001
2002	Final CMS for Abandoned Landfill, SWMU 12	SAIC	MAR-2002
	Revised Final CMS for Abandoned Landfill, SWMU 12, Within OU2	SAIC	JUN-2002
2003	Final Letter Report, Supplemental Soil Sampling for Oil/Water Separator Removal at 2-3357	USACE	JAN-2003
	Final Supplemental RFI/CMS at SWMU 5	SAIC	MAR-2003
	Final Corrective Measures Studies at OU3, Volumes 1 through 4	SAIC	APR-2003
	Final Supplemental RFI/CMS at SWMU 1	Zapata	APR-2003
	Final Remedial Design Analysis for Abandoned Landfill, SWMU 12, Volumes 1, 2, and 4	SAIC	APR-2003
	Corrective Action Plan Site ST008 (FTBR-314)	CH2M Hill	MAY-2003
2004	Final Corrective Measures Study for SWMUs 4 & 18	SAIC	MAR-2004
	Final RCRA Facility Investigation for the Former Mallonee Village Gas Station (SWMU 103)	SAIC	SEP-2004
	Revised Final Site Conceptual Model Report for Former Mallonee Village Gas Station (SWMU 103) and Vicinity that Includes SWMUs 4 and 18 and SWMU 5	SAIC	SEP-2004
2005	Compliance Monitoring Report, Sampling Event 1, for Remedial Action/Long Term Monitoring for SWMU 8	BHATE	JAN-2005
	Phosphorus Practice Grenade Material Removal near SWMU 104, Volumes I and II	Zapata	FEB-2005
	Phosphorus Practice Grenade Material Removal near SWMU 104, Volumes I and II	Zapata	FEB-2005
	Corrective Action Plan Site SS019 (FTBR-310)	NCDENR	JUN-2005
	Final RCRA Facility Investigation (RFI) Report for the Wastewater Treatment Plant (WWTP) and AOC A	Zapata	AUG-2005
	Final RCRA Facility Investigation (RFI) Report for the Wastewater Treatment Plant (WWTP) and AOC A	Zapata	AUG-2005
	Final Compliance Monitoring Report (Second Sampling Event) for Remedial Action for SWMU 12 Within Operable Unit 2	JJ Sosa	AUG-2005
	Final Field Documentation and Closure Reports for FY05 Oil Waster Separator Removals	JJ Sosa	AUG-2005
	Final Compliance Monitoring Report (Third Sampling Event) for Remedial Action for SWMU 12 Within Operable Unit 2, JJ Sosa	JJ Sosa	OCT-2005
	Letter Report for RCRA Facility Investigation (RFI) at Solid Waste Management Unit (SWMU) 104	Zapata	DEC-2005

IRP Previous Studies

2006

Title	Author	Date
Compliance Monitoring Report, Sampling Event 2, SWMU 8	BHATE	JAN-2006
Final Compliance Monitoring Report, Sampling Event 1, for SWMUs 4&18	BHATE	JAN-2006
Final Compliance Monitoring Report, Sampling Event 1, for SWMU 5	BHATE	JAN-2006
Compliance Monitoring Report, Sampling Event 1, for SWMU 14	BHATE	JAN-2006
Compliance Monitoring Report, Sampling Event 2, SWMUs 8, 9	BHATE	JAN-2006
Compliance Monitoring Report, Second Sampling Event, SWMU 9	BHATE	JAN-2006
Supplemental Information for RFI at SWMU 104	Zapata	FEB-2006
Final Report on the Fourth Sampling Event for Long Term Ground-Water Monitoring at SWMU 1	USACE- Savannah	MAY-2006
Corrective Action Plan, Building 390 (FTBR-312)	HydroGeoLogic, Inc.	MAY-2006
Final Addendum #7 to the Sampling and Analysis Plan to Support the Corrective Measures Study at Mallonee Village Gas Station (SWMU 103)	SAIC	JUN-2006
Corrective Measures Study for SWMU 69, Volumes I &II	USACE- Savannah	JUN-2006
Draft Report for 2nd LTM Groundwater Monitoring Event at SWMU 63	USACE- Savannah	JUL-2006
Letter Report-Supplemental Arsenic Information for SWMU 104	Zapata	JUL-2006
Final Compliance Monitoring Report, 4th Sampling Event, Remedial Action for SWMU 12	USACE- Savannah	AUG-2006
Final Compliance Monitoring Report, 4th Sampling Event, Remedial Action for SWMU 12	USACE- Savannah	AUG-2006
Draft Final Corrective Measures Study for SWMU 103	SAIC	AUG-2006
Letter Addendum-Final Work Plan for Additional Soil Sampling at SWMU 104	Zapata	AUG-2006
Letter Addendum-Final Work Plan for Additional Soil Sampling at SWMU 104	Zapata	AUG-2006
Revised pages for the Final 2nd LTM Groundwater Monitoring Event at SWMU 63	USACE- Savannah	SEP-2006
Construction Project Request for SWMU 1	Fort Bragg	OCT-2006
Final Construction Report for FY05-1 Heating Oil Tank Removals/Replacements	Aerostar	NOV-2006
Addendum Letter Report for RCRA Facility Investigation for SWMU 104	Zapata	DEC-2006
Draft Report on the Fifth Sampling Event for Long Term Monitoring at SWMU 1	USACE- Savannah	DEC-2006
Final Compliance Monitoring Report for LTM at SWMU 14, Sampling Event 2	BHATE	DEC-2006
Final Compliance Monitoring Report for LTM at SWMU 9, Sampling Event 3	BHATE	DEC-2006
Final Compliance Monitoring Report for LTM at SWMU 8, Sampling Event 3	BHATE	DEC-2006
Final Compliance Monitoring Report for LTM at SWMUs 4 & 18, Sampling Event 2	BHATE	DEC-2006
Final Compliance Monitoring Report for LTM at SWMU 5, Sampling Event 2	BHATE	DEC-2006

IRP Previous Studies

2007	Title	Author	Date
	Draft First Long-Term Monitoring Report for OU6	USACE- Savannah	FEB-2007
	Final Accident Prevention Plan for Remediation Services at Ft. Bragg	Parsons	FEB-2007
	Final Project Management Plan for the Performance Based Contract	Parsons	MAR-2007
	Final Corrective Measures Study for SWMU 69 Jeep Dismantling Area, fort Bragg, NC	Parsons	MAY-2007
	Final Corrective Measures Study For SWMU 103, Ft. Bragg, NC	Parsons	AUG-2007
	Final Long-Term Monitoring Report, SWMU 63, Third Sampling Event (March 2007), Ft. Bragg	Parsons	NOV-2007
	Final LTM Report, SWMU 8, Fourth Sampling Event (March 2007) Ft. Bragg	Parsons	NOV-2007
	Final LTM Report, SWMU 9, Fourth Sampling Event (March 2007) Ft. Bragg	Parsons	NOV-2007
	Final LTM Report, SWMU 14, Third Sampling Event (February 2007) Ft. Bragg	Parsons	NOV-2007
	Final LTM Report, SWMU 4/18, Third Sampling Event (February 2007) Ft. Bragg	Parsons	NOV-2007
	Final LTM Report, SWMU 5, Third Sampling Event (February 2007) Ft. Bragg	Parsons	NOV-2007
2008	Final Corrective Measures Implementation Plan for SWMU 103, Ft Bragg, NC	Parsons	JAN-2008
	Final Corrective Measures Implementation Plan for SWMU 69, Jeep Dismantling Area, Ft. Bragg, NC	Parsons	JAN-2008
	SS014 Executed Notice of Residual Petroleum (FTBR-309)	NCDENR	SEP-2008
	Notice of No Further Action, Site SS020-Silver Ramp (FTBR-311)	NCDENR	SEP-2008
	Final LTM Report for SWMU 4/18, 5, 14, and 63, July 2008 Sampling Event	Parsons	DEC-2008
2009	Final Corrective Measures Implementation Report for SWMU 69	Parsons	JAN-2009
	Final Corrective Measures Implementation Report for SWMU 103	Parsons	JAN-2009
	FTBR-001 Decision Document	Parsons	FEB-2009
	FTBR-004 Decision Document	Parsons	FEB-2009
	FTBR-005 Decision Document	Parsons	FEB-2009
	FTBR-008 Decision Document	Parsons	FEB-2009
	FTBR-009 Decision Document	Parsons	FEB-2009
	FTBR-012 Decision Document	Parsons	FEB-2009
	FTBR-014 Decision Document	Parsons	FEB-2009
	FTBR-063 Decision Document	Parsons	FEB-2009
	LF010 Record of Decision (FTBR-302)	URS Group, Inc.	JUL-2009
	Final Long Term Monitoring Report	Parsons	AUG-2009

IRP Previous Studies

Year	Title	Author	Date
2009	FT001 Executed Notice of Residual Petroleum (FTBR-306)	Pope Air Force Base	AUG-2009
	ST002 Executed Notice of Residual Petroleum (FTBR-313)	NCDENR	AUG-2009
2010	LF005 Record of Decision (FTBR-300)	URS Group, Inc,	AUG-2010
	LF006 Record of Decision (FTBR-301)	URS Group, Inc.	DEC-2010
2012	SS009 Record of Decision (FTBR-304)	URS Group, Inc.	JAN-2012
	LF012 Record of Decision (FTBR-303)	URS Group, Inc.	FEB-2012
	SS018 Record of Decision (FTBR-305)	URS Group, Inc.	FEB-2012
	First Quarter 2012 SWMU 103 Surface Water Monitoring Letter Report	Parsons	APR-2012
	SWMU 103 Surface Water Monitoring Letter Report, Second Quarter 2012 Event	Parsons	AUG-2012
	Long-Term Monitoring Report, February 2012 Event, SWMU 103	Parsons	AUG-2012
	SWMU 103 Surface Water Monitoring Letter Report, Third Quarter 2012 Event	Parsons	DEC-2012
2013	SWMU 103 Surface Water Monitoring Letter Report, Fourth Quarter 2012 Event	Parsons	JAN-2013
	Long Term Groundwater Monitoring Report, February 2013, LF005 (FTBR-300)	URS	APR-2013
	Long Term Groundwater Monitoring Report, February 2013, LF006 (FTBR-301)	URS	APR-2013
	Groundwater Monitoring Report, February 2013 Sampling Event, SS009 (FTBR-304)	URS	APR-2013
2014	Final Long Term Monitoring Report SWMUs 1, 4/18, 5, 8, 9, 12, 14 & 63 February and March 2013 Sampling Event	Parsons Infrastructure and Technology Group, Inc	MAR-2014
	Long-Term Monitoring Report January 2014 Event SWMU 69	Parsons Infrastructure and Technology Group, Inc	MAR-2014
	Long-Term Monitoring Report January 2014 Event SWMU 103	Parsons Infrastructure and Technology Group, Inc	MAR-2014
	Long-Term Monitoring Report Site FTBR-305 November 2013 Sampling Event	Parsons Infrastructure and Technology Group, Inc.	MAR-2014
	Corrective Action Plan Monitoring Report Fourth Quarter 2013-First Quarter 2014 Events Site FTBR-310 (SS019)	Parsons Infrastructure and Technology Group, Inc.	APR-2014
	Corrective Action Plan Monitoring Report Fourth Quarter 2013 - First Quarter 2014 Events Site FTBR-308 (SS007)	Parsons Infrastructure and Technology Group, Inc.	MAY-2014
	Corrective Action Plan Memorandum Report Fourth Quarter 2013-First Quarter 2014 Events (FTBR-312)	Parsons Government Services, Inc.	MAY-2014
	Corrective Action Plan Monitoring Report Fourth Quarter 2013 - First Quarter 2014 Events Site FTBR-314 (ST008)	Parsons Government Services, Inc.	MAY-2014
	SWMU 103 Surface Water Monitoring Letter Report	Parsons	SEP-2014

IRP Previous Studies

2014

Title

Author

Date

Second Quarter 2014 Event		
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FORT BRAGG

Installation Restoration Program

Site Descriptions

Site ID: FTBR-001
Site Name: ABANDONED LANDFILL 1
Alias: SWMU 1

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

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

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199902.....	200309
CMI(C).....	200309.....	200309
CMI(O).....	200310.....	200709
LTM.....	200712.....	204502

RIP Date: 200310

RC Date: 200709

SITE DESCRIPTION

FTBR-001 is an abandoned solid waste landfill on the south side of Gruber Road near the intersection of Gruber and Zabitosky in the cantonment area. It is bordered on the east by a N-S drainage ditch and on the south by an intermittent NW-SE tributary to Big Branch Creek. Because of an erosion control project in Big Branch Creek near the site, the state agreed that surface water/stream bed sediment samples would not be required. The 94-acre unlined landfill operated from the early-1940s to 1951. Three vehicle maintenance facilities, including motor pools and paved parking lots, were constructed on top of most of the site. Early stages of the RFI revealed metals, pesticides, and VOCs in the soil; low levels of solvents were found in the groundwater. The final RFI was submitted in FY99 and the CMS was completed in FY03. Groundwater monitoring was the recommended remedy.

A site decision document (DD) was signed in 2003, identifying groundwater monitoring as the site remedy. Institutional controls (IC) were implemented, and geographic information system (GIS) layers showing the LUC were included in the base master plan (BMP). Annual certifications of the IC are documented for the RCRA permit. Groundwater sampling as part of CMI(O) began in 2003. Fifteen groundwater wells are at the site; eight of them were monitored for VOCs, SVOCs, and RCRA metals every nine months. Six rounds of sampling were completed (Jun 2003, Apr 2004, Feb 2005, Dec 2005, Aug 2006, and Nov 2007) per the requirements in the 2003 DD. Following the 2007 sampling event, the data was evaluated for monitoring optimization. Based on the data evaluation, the sampling network was reduced and sampling frequency changed from annually to once every odd year; five wells will be sampled for VOCs, SVOCs, and RCRA metals. Long-term monitoring (monitored natural attenuation) will continue. A new DD was completed in 2009, noting the change in remedial strategy. In 2014, this site was moved into LTM per USAEC. A new DD was completed in December 2014, but no changes were made.

This site is included in a PBA contract with Parsons awarded in FY06, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY06 contract; site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate contract line item number (CLIN) from the FY12 contract. Periodic reviews will be captured in the FTBR-103 Army Environmental Database-Restoration (AEDB-R) site. Future work will be performed under the 5th PBA (PBA5) contract, expected to be awarded in FY18.

In 2013, Fort Bragg elected to perform vapor intrusion (VI) investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into 25 buildings overlying the known contamination plume and four buildings within 100 feet of the plume at FTBR-001. The VI study for 13 sites at Fort Bragg will be included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. All site costs will be tracked through the open RI phase for FTBR0074 in AEDB-R.

A 2014 Optimization Study was initiated by the USACE on 12 landfill/hardfill sites at Fort Bragg/Pope AAF. This study will determine which sites are good candidates for aggressive action to shorten their project lifespan or to actually achieve site closure. Additional goals include: reducing the time to attaining response complete (RC), increasing available land for other Army uses, and/or reducing operations and maintenance (O&M) costs associated with these sites while maintaining a protective remedy.

Site ID: FTBR-001
Site Name: ABANDONED LANDFILL 1
Alias: SWMU 1

or corrective action.

FTBR-001 is one of the 12 sites to be evaluated.

CLEANUP/EXIT STRATEGY

Monitoring is required as long as waste remains in the landfill. The 2014 Periodic Review recommended elimination of SVOC analysis, and reducing monitoring frequency from twice per year to every three years. NCDENR did not concur. Current sampling and analytical protocols will remain in place. Monitoring data will continue to be evaluated for additional ramp-down during future periodic reviews.

Site ID: FTBR-004
Site Name: LANDFILL 4 & FIRE TRAINING PITS 18
Alias: SWMUs 4&18

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

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

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199110.....	200409
CMI(C).....	200410.....	200411
CMI(O).....	200412.....	204502

RIP Date: 200412

RC Date: 204502

SITE DESCRIPTION

Site FTBR-004 is an abandoned landfill; fire training pits (formerly FTBR-018) are collocated within the site. The area is just southeast of the intersection of Honeycutt Road and Knox Street in the central part of the cantonment area. The 10-acre landfill was active between 1961 and 1966. No known records indicate the types of waste that were disposed there. Two fire training pits were constructed on the northern half of FTBR-004. Use of the fire pits began in 1966; the pits were lined with sand until 1978 when they were lined with concrete and drainage was directed to an OWS located between the pits. Investigation of FTBR-018 was incorporated into FTBR-004. In 1998 a RFI report was submitted. Elevated levels of some contaminants indicated the need for additional sampling. In FY01 and FY02, the wells were sampled and the results indicated that metals, VOCs, SVOCs, and petroleum hydrocarbons were above NC 2L groundwater standards. The CMS completed in FY04 recommended continued monitoring of groundwater only.

A site DD was signed in 2003, identifying groundwater monitoring as the site remedy. Institutional controls (IC) were implemented, and GIS layers showing the LUC were included in the BMP. Annual certification of the IC is documented for the RCRA permit. Groundwater sampling as part of CMI(O) began in 2003, initially in nine-month intervals to attempt to document any seasonal variation. Six rounds of sampling were completed and the data were evaluated for monitoring optimization. Based on the data evaluation, the sampling network was reduced and the sampling frequency was changed to occur every two years, in odd years. The site DD was revised in December 2014 as follows: Four wells are monitored every two years for VOCs, SVOCs, RCRA metals, and pesticides. Landfill gas monitoring is eliminated and 12 wells are gauged during each monitoring event.

This site is included in a PBA contract with Parsons awarded in FY06, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY06 contract; site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from the FY12 contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into two buildings overlying the known contamination plume and two buildings within 100 feet of the plume at FTBR-004. The VI study for 13 sites at Fort Bragg will be included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. All site costs will be tracked through the open RI phase for CCFTBR0074 in AEDB-R.

A 2014 Optimization Study was initiated by the USACE, on 12 landfill/hardfill sites at Fort Bragg/Pope AAF. This study will determine which sites are good candidates for aggressive action to shorten their project lifespan or to actually achieve site closure. Additional goals include: reducing the time to attaining RC, increasing available land for other Army uses, and/or reducing O&M costs associated with these sites while maintaining a protective remedy or corrective action. FTBR-004 is one of the 12 sites to be evaluated.

Site ID: FTBR-004
Site Name: LANDFILL 4 & FIRE TRAINING PITS 18
Alias: SWMUs 4&18

CLEANUP/EXIT STRATEGY

Monitoring is required as long as waste remains in the landfill. The 2014 Periodic Review recommended elimination of landfill gas headspace monitoring. NCDENR requested additional information. Additionally, a recommendation was made to reduce groundwater monitoring frequency from twice per year to every three years. NCDENR did not concur. No decision has been made at this time. Current sampling and analytical protocols will remain in place. Monitoring data will continue to be evaluated for additional ramp-down during future periodic reviews.

Site ID: FTBR-005
Site Name: ABANDONED LANDFILL 5
Alias: SWMU 5

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

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

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199301.....	200306
CMI(C).....	200410.....	200410
CMI(O).....	200409.....	204502

RIP Date: 200410

RC Date: 204502

SITE DESCRIPTION

Site FTBR-005 is an abandoned solid waste landfill in the vicinity of Knox and Honeycutt Roads, east of the Earth Terminal Complex. It covers about seven acres in the central portion of the cantonment area. The unlined landfill was active between 1966 and 1967. Results of sampling and analysis indicate the presence of contaminants of concern exceeding North Carolina (NC) groundwater standards. The CMS was completed in FY03 and recommended CMI(O) for groundwater only.

A site DD was signed in 2003, identifying groundwater monitoring as the site remedy. ICs were implemented, and GIS layers showing the LUC were included in the BMP. Annual certification of the ICs is documented for the RCRA permit. Groundwater sampling as part of CMI(O) began in 2003, and initially in nine month intervals to attempt to document any seasonal variation. Six rounds of sampling were completed and the data were evaluated for monitoring optimization. Based on the data evaluation, the sampling network was reduced and the sampling frequency was changed to occur every two years, in odd years. The site DD was revised in December 2014 as follows: Four wells are monitored every two years for VOCs, SVOCs, and RCRA metals. Landfill gas monitoring is eliminated and all 10 remaining wells at the site are gauged during each monitoring event.

This site is included in a PBA contract with Parsons awarded in FY06, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY06 contract; site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from the FY12 contract. PRs will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

A 2014 Optimization Study was initiated by the USACE, on 12 landfill/hardfill sites at Fort Bragg/Pope Army Airfield. This study will determine which sites are good candidates for aggressive action to shorten their project lifespan or to actually achieve site closure. Additional goals include: reducing the time to attaining RC, increasing available land for other Army uses, and/or reducing O&M costs associated with these sites while maintaining a protective remedy or corrective action. The 12 sites to be evaluated include: FTBR-001, FTBR-004, FTBR-005, FTBR-008, FTBR-009, FTBR-012, FTBR-014 (two sites), FTBR-300, FTBR-301, FTBR-302, and FTBR-303.

CLEANUP/EXIT STRATEGY

Monitoring is required as long as waste remains in the landfill. The 2014 Periodic Review recommended site closeout because it is a construction and debris landfill. In lieu of closure, a request was also made for a reduction in monitoring frequency from twice per year to every three years. NCDENR did not concur to either recommendation. Site will remain open and active. Current sampling and analytical protocols will remain in place. Monitoring data will continue to be evaluated for additional ramp-down during future periodic reviews.

Site ID: FTBR-008
Site Name: ABANDONED LANDFILL 8
Alias: SWMUs8abcd

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

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

Media of Concern: Groundwater, Other (Surface Water), Sediment

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199807.....	200305
CMI(C).....	200403.....	200503
CMI(O).....	200509.....	204502
RIP Date:	200509	
RC Date:	204502	

SITE DESCRIPTION

Site FTBR-008 consists of four solid waste landfill cells (8A, 8B, 8C, and 8D, totaling 50 acres) located near the intersection of Knox and Kedenburg Streets in the south-central portion of the cantonment area. These unlined landfills were reportedly active for sludge, debris, and other unknown wastes between 1967 and 1970. Previous inspections at FTBR-008 revealed the presence of leachate in Beaver Creek and exposed debris at several eroded locations in landfill cells 8B and 8C. Chemical analysis during the RFI revealed PCBs, petroleum hydrocarbons, VOCs, and SVOCs in soil. Groundwater constituents included VOCs, SVOCs, petroleum hydrocarbons, pesticides, and metals. In 1996, the final RFI report was approved. In FY98 the CMS and corrective measures implementation plan [CMI(P)] were started. Sampling found low levels of methane at multiple locations. In FY03 the CMS and CMI(P) were completed and it was determined that soil exposure concerns would be addressed by limiting site access.

A site DD was signed in 2003, identifying groundwater monitoring as the site remedy. ICs were implemented, and GIS layers showing the LUC were included in the BMP. Annual certification of the ICs is documented for the RCRA permit. Groundwater sampling as part of CMI(O) began in 2003, and initially in nine-month intervals to attempt to document any seasonal variation. Six rounds of sampling were completed and the data were evaluated for monitoring optimization. Based on the data evaluation, the sampling network was reduced and the sampling frequency was changed to occur every two years, in odd years. The DD was revised in December 2014 as follows: Groundwater monitoring program is unchanged. Landfill gas monitoring has been eliminated in all wells except for well 8BMW5.

This site is included in a PBA contract with Parsons awarded in FY06, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY06 contract; site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from the FY12 contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

A 2014 Optimization Study was initiated by the USACE, on 12 landfill/hardfill sites at Fort Bragg/Pope AAF. This study will determine which sites are good candidates for aggressive action to shorten their project lifespan or to actually achieve site closure. Additional goals include: reducing the time to attaining RC, increasing available land for other Army uses, and/or reducing O&M costs associated with these sites while maintaining a protective remedy or corrective action. The 12 sites to be evaluated include: FTBR-001, FTBR-004, FTBR-005, FTBR-008, FTBR-009, FTBR-012, FTBR-014 (two sites), FTBR-300, FTBR-301, FTBR-302, and FTBR-303.

CLEANUP/EXIT STRATEGY

Monitoring is required as long as waste remains in the landfill. The 2014 Periodic Review recommended elimination of landfill gas headspace monitoring. NCDENR requested additional information. No decision has been made at this time. Additionally, a recommendation was made to reduce groundwater monitoring frequency from twice per year to every three years. NCDENR did not concur. Current sampling and analytical protocols will remain in place. Monitoring data will continue to be evaluated for

Site ID: FTBR-008
Site Name: ABANDONED LANDFILL 8
Alias: SWMUs8abcd

additional ramp-down during future periodic reviews.

Site ID: FTBR-009
Site Name: ABANDONED LANDFILL 9
Alias: SWMU 9

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

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

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199807.....	200309
DES.....	200008.....	200309
CMI(C).....	200403.....	200503
CMI(O).....	200503.....	204502

RIP Date: 200503

RC Date: 204502

SITE DESCRIPTION

Site FTBR-009 is an abandoned construction and demolition (C&D) debris and municipal solid waste (MSW) landfill that was active between 1970 and 1975. It is located on about 30 acres of wetlands southeast of the intersection of Honeycutt Road and All American Freeway in the south-central portion of the cantonment area. It is bounded on the north by a railroad yard, on the east and the south by tributaries to Beaver Creek, and by Honeycutt Road on the west. The All American Freeway runs through the western third of the landfill. Chemical analysis of soil and groundwater samples collected during the RFI indicated several chemicals of concern: VOCs, SVOCs, petroleum hydrocarbons, and metals. Trace levels of explosives were also detected in groundwater during the RFI. Sampling also found high levels of methane in multiple locations. In FY03, the CMS was completed and it was determined that soil exposure concerns would be addressed by limiting site access, and that the methane issue would be addressed by a passive venting system.

A site DD was signed in 2003, identifying groundwater monitoring as the site remedy. ICs were implemented, and GIS layers showing the LUC were included in the BMP. Annual certification of the ICs is documented for the RCRA permit. Groundwater sampling as part of CMI(O) began in 2003, and initially in nine month intervals to attempt to document any seasonal variation. Six rounds of sampling were completed and the data were evaluated for monitoring optimization. Based on the data evaluation, the sampling network was reduced and the sampling frequency was changed to occur every two years, in odd years. The DD was revised in December 2014 but the monitoring program is unchanged except for landfill gas monitoring points MP4 and MP5. These points were destroyed and have been eliminated from the monitoring program.

This site is included in a PBA contract with Parsons awarded in FY06, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY06 contract; site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from the FY12 contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

A 2014 Optimization Study was initiated by the USACE, on 12 landfill/hardfill sites at Fort Bragg/Pope AAF. This study will determine which sites are good candidates for aggressive action to shorten their project lifespan or to actually achieve site closure. Additional goals include: reducing the time to attaining RC, increasing available land for other Army uses, and/or reducing O&M costs associated with these sites while maintaining a protective remedy or corrective action. The 12 sites to be evaluated include: FTBR-001, FTBR-004, FTBR-005, FTBR-008, FTBR-009, FTBR-012, FTBR-014 (two sites), FTBR-300, FTBR-301, FTBR-302, and FTBR-303.

CLEANUP/EXIT STRATEGY

Monitoring is required as long as waste remains in the landfill. The 2014 Periodic Review had no recommendations for site optimization. Current sampling and analytical protocols will remain in place. Monitoring data will continue to be evaluated for

Site ID: FTBR-009
Site Name: ABANDONED LANDFILL 9
Alias: SWMU 9

additional ramp-down during future periodic reviews.

Methane will be monitored at methane sample points. The O&M plan will be implemented with non-ER,A funds.

Site ID: FTBR-012
Site Name: ABANDONED LANDFILL 12
Alias: SWMU 12

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

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

Media of Concern: Groundwater, Other (Surface Water)

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199709.....	200209
DES.....	200010.....	200306
CMI(C).....	200306.....	200409
CMI(O).....	200409.....	204502
RIP Date:	200409	
RC Date:	204502	

SITE DESCRIPTION

Site FTBR-012 is an abandoned C&D debris landfill located north of Butner Road in the northeast corner of the cantonment area. The unlined landfill was active from 1975 to 1985. The RFI showed the landfill size to be about nine acres. The site is bounded on the north and the west by Young Lake, on the south by the former VTTA, FTBR-102, and on the east by a stream and power line right-of-way. The RFI identified SVOCs, pesticides, metals, and petroleum hydrocarbons as constituents in soil, groundwater, and stream bed sediment samples. The CMS, completed in April 2002, recommended fencing and monitoring for groundwater and surface water.

A DD was signed in 2003, identifying groundwater monitoring as the site remedy. ICs were implemented, and GIS layers showing the LUC were included in the BMP. Annual certification of the ICs is documented for the RCRA permit. Groundwater sampling as part of CMI(O) began in 2003, and initially in nine month intervals to attempt to document any seasonal variation. Six rounds of sampling were completed and the data were evaluated for monitoring optimization. Based on the data evaluation, the sampling network was reduced and the sampling frequency was changed to occur every two years, in odd years. A request to NCDENR for closure with NFA was submitted in July 2014. NCDENR felt that the iron and manganese in the groundwater in the wells farthest from Youngs Lake are too high for FTBR-012 to be considered for an NFA. The continued presence of the waste in place that is causing the reducing conditions, is causing iron and manganese to be dissolved in groundwater. NFA was denied at this time, and monitoring will continue biennially for target analyte list (TAL) metals. The DDs were revised in December 2014 but the monitoring program is unchanged.

This site is included in a PBA contract with Parsons awarded in FY06, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY06 contract; site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from the FY12 contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

A 2014 Optimization Study was initiated by the USACE, on 12 landfill/hardfill sites at Fort Bragg/Pope AAF. This study will determine which sites are good candidates for aggressive action to shorten their project lifespan or to actually achieve site closure. Additional goals include: reducing the time to attaining RC, increasing available land for other Army uses, and/or reducing O&M costs associated with these sites while maintaining a protective remedy or corrective action. The 12 sites to be evaluated include: FTBR-001, FTBR-004, FTBR-005, FTBR-008, FTBR-009, FTBR-012, FTBR-014 (two sites), FTBR-300, FTBR-301, FTBR-302, and FTBR-303.

CLEANUP/EXIT STRATEGY

Monitoring is required as long as waste remains in the landfill. The 2014 Periodic Review recommended site closeout because it is a construction and debris landfill. NCDENR denied site closeout because iron and manganese in the groundwater wells furthest

Site ID: FTBR-012
Site Name: ABANDONED LANDFILL 12
Alias: SWMU 12

from Young Lake are too high, potentially indicating the presence of waste in place that is causing reducing conditions. In lieu of closure, a request was also made for a reduction in monitoring frequency from twice per year to every three years. NCDENR did not concur. Site will remain open and active. Current sampling and analytical protocols will remain in place. Monitoring data will continue to be evaluated for additional ramp-down during the future periodic reviews.

Methane will be monitored at methane sample points. The O&M plan will be implemented with non-ER,A funds.

Site ID: FTBR-014
Site Name: ABANDONED LANDFILLS 2 & 14
Alias: SWMU2,14ab

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

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

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199807.....	200203
DES.....	201403.....	201510
CMI(C).....	200403.....	201510
CMI(O).....	200506.....	204502

RIP Date: 201510

RC Date: 204502

SITE DESCRIPTION

Site FTBR-014 (three acres) and former FTBR-002 (59 acres) are collocated west of the intersection of Cook Dr. and Knox St. near the south border of the cantonment area. The RFA identified two landfills at this site; however, the RFI revealed no evidence of a landfill at the location identified as "Abandoned LF 2." (The MSW/C&D landfill 14 was operated from 1985 to 1986.) The state of NC and the USEPA approved an NFA option for abandoned landfill 2 (June 6, 1996). Because FTBR-002 was incorporated into FTBR-014, FTBR-002 was deleted from the AEDB-R. Chemical analysis of FTBR-14 samples identified low levels of petroleum hydrocarbons (HC) and dieldrin in soils and low levels of tetrachloroethylene (PCE) and metals in the groundwater. Concentrations of dieldrin and petroleum HC were below state levels; however, high levels of methane were detected in soils at landfill 14. The CMS was completed in FY03. Partial CMI(C) was funded in FY04 (methane alarms in buildings as well as building warning signs). Fencing and signs were installed in FY05. The O&M plan will be funded with non-ER,A funds.

A site DD was signed in 2003, identifying groundwater monitoring as the site remedy. ICs were implemented, and GIS layers showing the LUC were included in the BMP. Annual certification of the ICs is documented for the RCRA permit. Groundwater sampling as part of CMI(O) began in 2003, and initially in nine-month intervals to document seasonal variation. Six rounds of sampling were completed and the data were evaluated for monitoring optimization. Based on the data evaluation, the sampling network was reduced and the sampling frequency was changed to occur every two years, in odd years. The DDs were revised in December 2014 as follows: Seven wells are monitored every two years for SVOCs and RCRA metals. Ten wells are monitored every year for VOCs. Three surface water sampling points are monitored every year for VOCs. Landfill gas monitoring will continue at SWMUs 14a and b. All 18 site wells are gauged during each monitoring event.

This site is included in a PBA contract with Parsons awarded in FY06, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY06 contract; site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from the FY12 contract. Additional site work includes one year of landfill cover repair, and two years of cover maintenance. This work will be performed under a new PBA contract with Bay West, awarded in September 2014. The POP will be through FY17. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future CMI(O) work will be performed under a PBA5 contract, to be award in FY18.

In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known solvent contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into one building within 100 ft of the known contamination plume at FTBR-014. The VI study for 13 sites at Fort Bragg will be included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. All site costs will be tracked through the open RI phase for CCFTBR0074 in AEDB-R.

A 2014 Optimization Study was initiated by the USACE, on 12 landfill/hardfill sites at Fort Bragg/Pope AAF. This study will determine which sites are good candidates for aggressive action to shorten their project lifespan or to actually achieve site closure. Additional goals include: reducing the time to attaining RC, increasing available land for other Army uses, and/or reducing O&M costs associated with these sites while maintaining a protective remedy or corrective action. FTBR-014 is included in the 12

Site ID: FTBR-014
Site Name: ABANDONED LANDFILLS 2 & 14
Alias: SWMU2,14ab

sites to be evaluated.

CLEANUP/EXIT STRATEGY

Monitoring is required as long as waste remains in the landfill. The 2014 Periodic Review recommended elimination of metal and SVOC analysis, and a reduction in monitoring frequency from twice per year to every three years. NCDENR did not concur to either recommendation. Current sampling and analytical protocols will remain in place. Monitoring data will continue to be evaluated for additional ramp-down during future periodic reviews.

Site ID: FTBR-063
Site Name: DEH STORAGE COMPOUND
Alias: SWMU 63

STATUS

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

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199304.....	200407
IRA.....	200001.....	200006
CMI(C).....	200411.....	200711
CMI(O).....	200712.....	204502
RIP Date:	200712	
RC Date:	204502	

SITE DESCRIPTION

Site FTBR-063 is the site of the former RCRA hazardous waste storage shed that was used between 1977 and 1982. It was located in the Directorate of Public Works (DPW) compound northwest of the intersection of Butner and Reilly roads. Stored wastes included PCB wastes, acids, caustics, solvents, paint wastes, used oil, photographic wastes, and insecticides. The unit was closed in 1982 because it was replaced with a RCRA-compliant generator storage area. Chemical analysis of soil and groundwater samples collected during the RFI identified pesticides, VOCs, and metals. Pesticides and VOCs were detected above regulatory levels. An IRA (soil removal) was completed in FY00. The removal reduced the contamination levels in soil to below NC regulatory levels. The CMS was completed in 2004 and monitoring of groundwater for pesticides and VOCs, which exceeded NC groundwater standards, was recommended.

A site DD was signed in 2003, identifying groundwater monitoring as the site remedy. ICs were implemented, and GIS layers showing the LUC were included in the BMP. Annual certification of the institutional controls is documented for the RCRA permit. Groundwater sampling as part of CMI(O) began in 2003, and initially in nine-month intervals to attempt to document any seasonal variation. Six rounds of sampling were completed and the data were evaluated for monitoring optimization. Based on the data evaluation, the sampling network was reduced and the sampling frequency was changed to occur every two years, in odd years. A revised DD was signed in 2009 noting this change in sampling frequency. The DDs were revised in December 2014 as follows: Four wells are monitored once every three years for VOCs and pesticides. All remaining 12 wells at the site are gauged during each monitoring event. Monitoring well 63ZMW7 was destroyed and will not be replaced. Wells MWDAP1S, 63MW2, 63MW5, 63MW2-6, and 63MW13 were also destroyed.

This site is included in a PBA contract with Parsons awarded in FY06, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY06 contract; site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from the FY12 contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Contaminant sampling will continue until ground water contaminate levels are below NC 2L. Four consecutive sampling events with no exceedances of NC groundwater standards are required prior to requesting an NFA. It is estimated that contaminant concentrations will be below the NC 2L in 2020. The 2014 Periodic Review had no recommendations for site optimization. Current sampling and analytical protocols will remain in place. Site data will continue to be evaluated during future periodic reviews.

Site ID: FTBR-069

Site Name: JEEP DISMANTLING AREA, BLDG 8-3612

Alias: SWMU 69

STATUS

Regulatory Driver: RCRA

RRSE: MEDIUM

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

Media of Concern: Groundwater, Other (Surface Water)

Phases	Start	End
RFA.....	198805.....	198805
CS.....	199008.....	199009
RFI/CMS.....	199409.....	200707
DES.....	200611.....	200801
CMI(C).....	200807.....	200909
CMI(O).....	200910.....	201709
RIP Date:	200910	
RC Date:	201709	

SITE DESCRIPTION

Site FTBR-069 is located southeast of the intersection of Woodruff and Knox streets. This mostly unpaved four-acre area was used to dismantle Army vehicles and store impounded vehicles. The site is currently used to store Army vehicles. Chemical analysis of soil and groundwater samples collected during the RFI identified VOCs, SVOCs, pesticides, PCBs, metals, and petroleum hydrocarbons. Chlorinated compounds exceed the state regulatory limits in groundwater. The Phase I RFI was started in FY96. In late FY00 the extended RFI was started and was completed in FY04. Levels of chlorinated compounds were detected above NC groundwater standards over 1,000 feet downgradient from the original jeep dismantling yard footprint. In 2005, as part of a pilot study, injection of hydrogen-release compounds (HRC) was conducted for hot spot treatment. In March 2006, surface water samples were collected; lab data from the surface water indicated no exceedances of NC standards in surface water.

This site was included in a PBA awarded in December 2006. The contract runs through FY16. A CMS was completed in FY07 and a CMI(P) was completed in FY08. Corrective measures implemented in FY08 included groundwater treatment and source area reduction. Performance monitoring commenced in FY09 and groundwater will be sampled on an annual basis.

This site is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY06 contract; site costs for FY15 through FY17 are paid by the FY12 contract. Site closure by Sept. 30, 2017, is required by the CV02 contract.

In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into 2 buildings overlying the known contamination plume and five buildings within 100 feet of the plume at FTBR-069. The VI study for 13 sites at Fort Bragg will be included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. All sites costs will be tracked through the open RI phase for CCFTBR0074 in AEDB-R.

CLEANUP/EXIT STRATEGY

Contaminant sampling will continue until groundwater contaminate levels are below NC 2L. Four consecutive sampling events with no exceedances of NC groundwater standards are required prior to requesting an NFA. It is estimated that contaminant concentrations will be below NC 2L standards in 2020. The 2014 Periodic Review had no recommendations for site optimization. Current sampling and analytical protocols will remain in place. Site data will continue to be evaluated during future periodic reviews.

Site ID: FTBR-103

Site Name: MALLONEE VILLAGE GAS STATION

Alias: SWMU 103

STATUS

Regulatory Driver: RCRA

RRSE: MEDIUM

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

Media of Concern: Groundwater, Other (Surface Water)

Phases	Start	End
RFA.....	200008.....	200009
CS.....	200008.....	200009
RFI/CMS.....	200202.....	200706
DES.....	200703.....	200710
CMI(C).....	200807.....	200809
CMI(O).....	200810.....	204502
RIP Date:	200810	
RC Date:	204502	

SITE DESCRIPTION

This site is located west of South Lucas Street, bordered on the north by Honeycutt Road. It was formerly occupied by a commercial vehicle maintenance facility and gas station that operated since the 1940s. A solvent tank was abandoned in place in the 1940s. In the late-1990s the tank was rediscovered and removed along with about 300 cubic yards of contaminated soil.

In February 2000, the RFI was started. High levels of chlorinated solvents and gasoline constituents were detected in the sediment, surface water and groundwater. A plume of contaminated groundwater extends under family housing and is moving downgradient. While contamination in the groundwater exceeds NC 2L standards, the concentrations are showing a decreasing trend.

This site was included in a PBA awarded in December 2006. The contract runs through FY16. A CMS was completed in FY07 and a CMI(P) was completed in FY08. Corrective measures implemented in FY08 included groundwater treatment and source area reduction. Performance monitoring commenced in FY09 and is ongoing. Groundwater sampling results in March 2013 showed a decreasing trend of contaminants. Sampling frequency was changed from quarterly to semiannually for surface water, and annually for groundwater.

This site is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY06 contract; site costs for FY15 through FY17 are paid by the FY12 contract.

Installation-wide five-year review or periodic reviews, including the correction of deficiencies, will be tracked under this site. The five-year review/periodic review schedule began in FY14 and will continue in future years in multiples of five (FY19, FY24, etc). The review in FY14 is included in the CV02 contract; the first review event included in the CTC estimate is in FY19. Future costs for these reviews will be forecast based on a rolling 30-year time period, through FY2044. A total of 53 sites will be included in the five-year review program. The 41 sites included in the 2014 review include: CCFTBR0011, 13, 15, 17, 19, 21, 22, 24, 27, 37, 38, 43, 46, 48, 67, 68, 98, FTBR-001, -004, -005, -008, -009, -012, -014, -063, -069, -103, -300, -301, -302, -303, -304, -305, -306, -308, -309, -310, -311, -312, -313, and -314. The 2014 five-year and periodic reviews were completed and signed in August 2014 and September 2014, respectively. The remedies of the five-year review sites were found to be protective of human health and the environment. The PR had no recommendations that would affect the current or future protectiveness of the corrective measures for most of the sites in the study, with the exception of minor recommendations (e.g. replace missing wells, compare historical data with current, update new land use following development, abandon unused monitoring wells). Twelve remaining site will also be included in the FY19 review. These include: CCFTBR0016, 39, 72, 80, 89, 97, 310, 312, 313, 314, 328, and FTBR-307. Future work will be performed under a PBA5 contract, to be awarded in FY18.

Although all known sources have been removed from the site, diffusion of chlorinated solvents into the overlying soils is suspected. In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into 69 buildings overlying the known contamination plume and 27 buildings within 100 feet of the plume at FTBR-103. The VI study for 13 sites at Fort Bragg will be

Site ID: FTBR-103
Site Name: MALLONEE VILLAGE GAS STATION
Alias: SWMU 103

included in a PBA-4 contract through USAEC and the MICC, with a POP from FY14 through FY17. All sites costs will be tracked through the open RI phase for site CCFTBR0074 in AEDB-R.

CLEANUP/EXIT STRATEGY

Performance monitoring will be conducted and corrective actions will be reviewed every five years to evaluate the groundwater treatment effectiveness and develop an exit/ramp-down strategy. The funding for the five-year review/periodic reviews and correction of remedy deficiencies for the installation will be tracked under this site; however, review deficiencies or findings for each site will be summarized under that site's write-up in the IAP. The 2014 Periodic Review for site optimization at FTBR-103. Current sampling and analytical protocols will remain in place. Five-year reviews and deficiency corrections are anticipated in FY19, FY24, FY29, FY34, and FY39.

Site ID: FTBR-300
Site Name: LF005 Hardfill Number 2
Alias: LF005

STATUS

Regulatory Driver: CERCLA
RRSE: MEDIUM
 Contaminants of Concern: Metals
 Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	198410.....	199409
SI.....	199410.....	199509
RI/FS.....	199510.....	201007
LTM.....	201010.....	204502
RIP Date: N/A		
RC Date: 201007		

SITE DESCRIPTION

The LF005 site was a construction debris hardfill area on Pope AAF, located north of Hurst Drive and south of the Airfield runway. It consisted of an area along Tank Creek of approximately 11 acres, and was in operation from the 1950s through the late-1980s. Site investigations were conducted from 1997 until 2008. Contaminants were found in surface soils (above soil screening levels), groundwater (above NC 2L), stream sediments (above screening levels), and surface water (above NC 2B). A ROD was completed in July 2010 and recommended LUCs with long-term monitoring. Fort Bragg must maintain the LUCs contained in the ROD, and conduct sampling every two years for the first five years, as long as the waste remains in place. Per the ROD, this site will also conduct five-year reviews in the future.

A Long-Term Groundwater Monitoring Report was conducted in February 2013. No target analytes were detected in the surface water samples. No target analytes were detected above the NC 2L in the groundwater samples.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Five-year reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be award in FY18.

A 2014 Optimization Study was initiated by the USACE, on 12 landfill/hardfill sites at Fort Bragg/Pope AAF. This study will determine which sites are good candidates for aggressive action to shorten their project lifespan or to actually achieve site closure. Additional goals include: reducing the time to attaining RC, increasing available land for other Army uses, and/or reducing O&M costs associated with these sites while maintaining a protective remedy or corrective action. The 12 sites to be evaluated include: FTBR-001, FTBR-004, FTBR-005, FTBR-008, FTBR-009, FTBR-012, FTBR-014 (two sites), FTBR-300, FTBR-301, FTBR-302, and FTBR-303.

CLEANUP/EXIT STRATEGY

The 2014 Five-Year Review recommended that surface water monitoring be discontinued. No analytes were detected in the surface water samples collected during this five-year period and current LUCs and signage are effective at preventing consumption and contact of site surface water. LUCs in place also prevent development on or near the site without thorough analysis of potential impacts, greatly reducing the potential for any future development to result in future releases from the site. Collection of one more round of groundwater samples is recommended. Because of damage to multiple groundwater wells, only one round of LTM sampling has occurred at two of the wells. Collection of an additional round of groundwater samples will ensure that at least two rounds of groundwater data are available from all five wells before considering discontinuing groundwater sampling. If no analytes are detected in the groundwater samples above the NC 2L, then it is recommended that groundwater monitoring be discontinued. Fort Bragg will discuss these recommendations with stakeholders. No decision has been made at this time. Current sampling and analytical protocols will remain in place, per the ROD. Sampling will be conducted for at least the next 30 years, and reviewed during future five-year reviews.

Site ID: FTBR-301
Site Name: LF006 Hardfill Number 8
Alias: LF006

STATUS

Regulatory Driver: CERCLA

RRSE: MEDIUM

Contaminants of Concern: Metals

Media of Concern: Groundwater, Soil

Phases	Start	End
PA.....	198410.....	199409
SI.....	199410.....	199509
RI/FS.....	199510.....	200802
LTM.....	201012.....	204502

RIP Date: N/A

RC Date: 201012

SITE DESCRIPTION

The LF006 site was a construction and industrial debris hardfill area on Pope AAF, located north of Hurst Drive and west of Surveyor Street. It consisted of an approximately 29-acre area, and was in operation from 1960 through the 1980s. A ROD was completed in September 2010 and recommended LUCs with long-term monitoring. Fort Bragg must maintain the LUCs contained in the ROD, and conduct sampling every two years for the first five years, as well as five-year reviews on this site in the future.

A Long-Term Groundwater Monitoring Report was conducted in February 2013. PCE in MW6-4, reported at a concentration of 2.8 micrograms per liter (ug/L), was the only analyte above the NC 2L. No SVOCs were identified above analytical method detection limits.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Five-year reviews will be captured in the FTBR-103 AEDB-R site.

In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into three buildings overlying the known contamination plume and three buildings within 100 feet of the plume at FTBR-301. The VI study for 13 sites at Fort Bragg will be included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. All sites costs will be tracked through the open RI phase for CCFTBR0074 in AEDB-R. Future work will be performed under a PBA5 contract, to be award in FY18.

A 2014 Optimization Study was initiated by the USACE, on 12 landfill/hardfill sites at Fort Bragg/Pope AAF. This study will determine which sites are good candidates for aggressive action to shorten their project lifespan or to actually achieve site closure. Additional goals include: reducing the time to attaining RC, increasing available land for other Army uses, and/or reducing O&M costs associated with these sites while maintaining a protective remedy or corrective action. The 12 sites to be evaluated include: FTBR-001, FTBR-004, FTBR-005, FTBR-008, FTBR-009, FTBR-012, FTBR-014 (two sites), FTBR-300, FTBR-301, FTBR-302, and FTBR-303.

CLEANUP/EXIT STRATEGY

The 2014 Five-Year Review recommended installing signage near the creek to prevent inadvertent surface water contact. Fort Bragg will discuss these recommendations with stakeholders. No decision has been made at this time. Current sampling and analytical protocols will remain in place, per the ROD. Sampling will be conducted for at least the next 30 years, and reviewed during future five-year reviews.

Site ID: FTBR-302
Site Name: LF010 Hardfill Number 1
Alias: LF010

STATUS

Regulatory Driver: CERCLA
RRSE: MEDIUM
 Contaminants of Concern: Metals
 Media of Concern: Soil

Phases	Start	End
PA.....	198410.....	199409
SI.....	199410.....	199509
RI/FS.....	199610.....	200907
LTM.....	200908.....	204502

RIP Date: N/A
RC Date: 200907

SITE DESCRIPTION

The LF010 site was a demolition debris hardfill area located between Reilly and Armistead Streets on Pope AAF. It consisted of an approximately 6.5-acre area on the Pope Willow Lakes Golf Course. The hardfill was possibly in operation prior to 1950 through until at least 1970. A ROD was completed in July 2009 and recommended LUCs. The LUCs were increased larger than the determined hardfill area. The LUC area encompasses 21 acres. NCDENR approval was given to reduce the LUC area from 21 acres to 6.5 acres as long as access measures are implemented. Following surveying for the boundary reduction, the final LUC area totaled seven acres. The installation of a perimeter fence, to enclose and secure the new reduced LUC area, was completed in December 2013. This action was completed under contract with the US Army Corps of Engineers - Savannah District, with a POP of Sept. 24, 2013 through Jan. 1, 2014.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. RC by Sept. 30, 2014 is required by the contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

A 2014 Optimization Study was initiated by the USACE, on 12 landfill/hardfill sites at Fort Bragg/Pope AAF. This study will determine which sites are good candidates for aggressive action to shorten their project lifespan or to actually achieve site closure. Additional goals include: reducing the time to attaining RC, increasing available land for other Army uses, and/or reducing O&M costs associated with these sites while maintaining a protective remedy or corrective action. The 12 sites to be evaluated include: FTBR-001, FTBR-004, FTBR-005, FTBR-008, FTBR-009, FTBR-012, FTBR-014 (two sites), FTBR-300, FTBR-301, FTBR-302, and FTBR-303.

CLEANUP/EXIT STRATEGY

This site has a ROD and associated LUCs. Additional work for 2014-2015 will include the reduction of the LUC boundaries specified in the ROD. The new boundaries have been reduced from 21 acres to 7 acres. A new plat map will be created and filed with the Cumberland County Deed Office. Remaining LUCs will be maintained according to the ROD, accompanied by a five-year review. The 2014 Five-Year Review had no recommendations for site optimization. Site conditions and LUCs will be reviewed during future five-year reviews.

Site ID: FTBR-303
Site Name: LF012 Hardfill Number 7
Alias: LF012

STATUS

Regulatory Driver: CERCLA

RRSE:

Contaminants of Concern: Metals

Media of Concern: Soil

Phases	Start	End
PA.....	199310.....	199409
SI.....	199310.....	199409
RI/FS.....	199310.....	201203
LTM.....	201203.....	204502

RIP Date: N/A

RC Date: 201203

SITE DESCRIPTION

The LF012 site was a construction debris hardfill area on Pope AAF, located on the corner of Booster Street and Thunderbolt Road, northeast of Building 715. It consisted of an approximately 8.5-acre area, and was in operation from the late-1960s through the early-1970s. Site investigations were conducted from 1995 until 2010. Contaminants were found in surface soils [above soil screening levels (SSL)], subsurface soils (above USEPA RBC, SSLs for groundwater, MCLs, and NC PRGs), groundwater (above NCDENR groundwater quality standards). A ROD was completed in March 2012, recommending LUCs. Fort Bragg must maintain the LUCs contained in the ROD, and conduct sampling every two years for the first five years, as long as the waste remains in place. Per the ROD, this site will also conduct five-year reviews in the future.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Five-year reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into three buildings overlying the known contamination plume and six buildings within 100 feet of the plume at FTBR-303. The VI study for 13 sites at Fort Bragg will be included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. All sites costs will be tracked through the open RI phase for CCFTBR0074 in AEDB-R.

CLEANUP/EXIT STRATEGY

This site was completed with a ROD in February 2012. The ROD has associated LUCs. LUCs will be maintained according to the ROD, accompanied by a five-year review. The 2014 Five-Year Review had no recommendations for site optimization. Site conditions and LUCs will be reviewed during future five-year reviews.

Site ID: FTBR-304

Site Name: SS009 3rd Aerial Port Squadron Spil

Alias: SS009

STATUS

Regulatory Driver: CERCLA

RRSE: LOW

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

Media of Concern: Groundwater

Phases	Start	End
PA.....	199010.....	200409
SI.....	200410.....	200609
RI/FS.....	200910.....	201203
RA(C).....	201203.....	201204
RA(O).....	201205.....	204502

RIP Date: 201205

RC Date: 204502

SITE DESCRIPTION

Site SS009 contains several source sites and contaminates, and is located on the Green Ramp of the Airfield at Pope AAF, bounded by Hurst Drive and Surveyor Street. The site covers approximately 20 acres and was designated an IRP site in 1991. A ROD was completed in March 2012, recommending LUCs with MNA. Fort Bragg must maintain the LUCs contained in the ROD, and conduct sampling every two years for the first five years, as well as five-year reviews on this site in the future.

A Long-Term Groundwater Monitoring Report was conducted in February 2013. PCE was the only VOC detected above the NC 2L.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Five-year reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into six buildings overlying the known contamination plume and 10 buildings within 100 feet of the plume at FTBR-304. The VI study for 13 sites at Fort Bragg will be included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. All sites costs will be tracked through the open RI phase for CCFTBR0074 in AEDB-R.

CLEANUP/EXIT STRATEGY

This site was completed with a ROD in February 2012. The ROD has associated LUCs and biennial sampling planned. LUCs will be maintained according to the ROD, accompanied by a five-year review. The 2014 Five-Year Review recommended a reduction in sampling frequency for groundwater monitoring in the future. A reduction from biennial to once every five years should be explored. At this time, current sampling and analytical protocols will remain in place, per the ROD. Site conditions and LUCs will be reviewed during future five-year reviews.

Site ID: FTBR-305
Site Name: SS018 Liquid Oxygen Area Spill Site
Alias: SS018

STATUS

Regulatory Driver: CERCLA

RRSE: MEDIUM

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

Media of Concern: Groundwater

Phases	Start	End
PA.....	198410.....	199409
SI.....	199410.....	200209
RI/FS.....	199510.....	201203
RA(C).....	201203.....	201204
RA(O).....	201205.....	204502

RIP Date: 201205

RC Date: 204502

SITE DESCRIPTION

The SS018 site contains several source sites and contaminates, and is located north of Surveyor Street along the base boundary. The site was administratively combined with SS004 in 2005 and covers approximately 49 acres. A ROD was completed in March 2012, recommending LUCs with MNA. Fort Bragg must maintain the LUCs contained in the ROD, and conduct sampling annually for the first five years, as well as five-year reviews on this site in the future.

A Long-Term Groundwater Monitoring Report was conducted in May 2013. PCE, trichloroethylene (TCE), benzene, vinyl chloride, cadmium, chromium, cobalt, iron, manganese, thallium, and vanadium were detected above the NC 2L in one or more of the groundwater samples collected.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Five-year reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into 31 buildings overlying the known contamination plume and seven buildings within 100 feet of the plume at FTBR-305. The VI study for 13 sites at Fort Bragg will be included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. All sites costs will be tracked through the open RI phase for CCFTBR0074 in AEDB-R.

CLEANUP/EXIT STRATEGY

This site was completed with a ROD in February 2012. The ROD has associated LUCs and annual sampling planned. LUCs will be maintained according to the ROD, accompanied by a five-year review. The 2014 Five-Year Review recommended replacing damaged monitoring wells. No other changes in sampling protocol were suggested. Site conditions and LUCs will be reviewed during future five-year reviews.

Site ID: FTBR-306
Site Name: FT001 Fire Training Area #4
Alias: FT001

STATUS

Regulatory Driver: CERCLA

RRSE:

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

Media of Concern: Groundwater

Phases	Start	End
PA.....	198810.....	198909
RI/FS.....	199710.....	199809
IRA.....	199010.....	200309
RA(C).....	200310.....	200709
RA(O).....	200510.....	200909
LTM.....	200910.....	204509

RIP Date: 200709

RC Date: 200909

SITE DESCRIPTION

Site FT001 was a fire training area on Pope AAF, located southwest of the intersection of Hurst Drive and Aldish Road. It consisted of an unlined pit of approximately six acres, and was in operation from the 1950s through 1989.

Interim remedial actions between 1991 and 1993 included removal of up to 844 tons of buried drums remnants, other debris and associated highly contaminated soils, a UST and associated contaminated soils. A free-product collection trench and recovery system was also installed. Operation of the free-product recovery system was discontinued in 2003 since no free-product was observed in the recovery system.

A soil vapor extraction (SVE) and air sparging system were installed at the site in 2005 and operated from March 2005 until August 2007. RIP was achieved in March 2005 and the remediation system was shut down due to low product levels in August 2007. The site was given NFA with an NRP in August 2009, and LUCs were set.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain the soil and groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future. The LUCs will be continued with periodic reviews. The 2014 Periodic Review noted potential development on this site in the future. A recommendation was made to reopen investigation at the site, and provide a new remedy. However, soil contamination in the area of current construction is being remediated under site CCFTBR0094 via an IRA. FTBR-306 will not be reopened at this time.

Site ID: FTBR-307

Site Name: PL505 Building 164 Hydrant Fuel Lin

Alias: PL505

STATUS

Regulatory Driver: RCRA

RRSE: MEDIUM

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200610.....	200709
INV.....	200710.....	200809
IMP(C).....	200810.....	200909
IMP(O).....	200910.....	201310
LTM.....	201310.....	204502

RIP Date: 200910

RC Date: 201310

SITE DESCRIPTION

Building 164 is a general maintenance and storage facility, located at the intersection of Boxcar and Ethridge Streets on Pope AAF. Surrounding land use is mixed use, with administrative and industrial operations in the immediate area. Pope AAF and Yellow Ramp are just to the west.

Utility trenching at this site uncovered stained soil. Gasoline range organics (GRO) and VOCs were found above action levels during confirmatory sampling (CS). The contamination is suspected to be JP-8 jet fuel associated with an abandoned jet fuel transfer line located at building 164. There are no USTs associated with this building. A CSA was conducted in 2009, recommending AFVR. One year of AFVR and sampling has occurred. Analytical results showed elevated levels of benzene and naphthalene. Correspondence with NCDENR in 2011, recommended discontinuing AFVR and beginning quarterly pre-CAP sampling. Pre-CAP monitoring activities were conducted from 2011 until May 2013. No free-product was encountered. Benzene, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene were detected above NC 2L but below gross contamination limit (GCL) in the May 2013 Pre-Cap Monitoring Report. NCDENR issued a notice of regulatory requirement (NORR) requesting an NRP in August 2013. The NRP was completed under the contract noted below.

This site received an NFA decision from the NCDENR on Oct. 21, 2013, via an NRP. LUCs are now in place and are documented in the BMP.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. RC by Sept. 30, 2014 is required by the contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: FTBR-308
Site Name: SS007 Blue Ramp JP-4 Spill Site
Alias: SS007

STATUS

Regulatory Driver: RCRA

RRSE: HIGH

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	199710.....	199809
INV.....	199810.....	200209
CAP.....	200110.....	200509
DES.....	200510.....	200609
IMP(C).....	200610.....	200709
IMP(O).....	200710.....	201709
RIP Date:	200710	
RC Date:	201709	

SITE DESCRIPTION

The SS007 site originated from a spill at the former refueling hydrant system, located on the blue ramp of the airfield at Pope AAF. The Blue Ramp Hydrant System consisted of 18, 50,000-gallon USTs at three buildings and an extensive underground hydrant line delivery system located under the ramps on the northern portion of the Pope Airfield. The hydrant system was in operation from 1956 through the 1990s. The site covers approximately 27 acres across Blue Ramp and north across Surveyor Street. The site is currently undergoing active remediation by free-product vacuum recovery each quarter. This will continue until free-product thickness is reduced to 0.01 feet or less in all wells. Site closeout will be obtained through an NRP. Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

Active remediation at this site includes free-product recovery via pump truck, hand bailing, and oleophilic socks.

CLEANUP/EXIT STRATEGY

Free-product recovery will continue until groundwater contaminate levels are below NC 2L. Site closeout will be obtained through an NRP. Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future. The 2014 Periodic Review had no recommendations for site optimization. Current sampling and analytical protocols will remain in place. Site data will continue to be evaluated during future periodic reviews.

Site ID: FTBR-309

Site Name: SS014 Morale, Welfare, and Recreati

Alias: SS014

STATUS

Regulatory Driver: RCRA

RRSE:

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200410.....	200509
INV.....	200510.....	200709
IMP(C).....	200710.....	200809
LTM.....	200810.....	204509

RIP Date: N/A

RC Date: 200809

SITE DESCRIPTION

Site SS014 originated from underground storage tank and pipeline releases, located along Armistead Street on Pope AAF. The site was utilized as the base transportation motor pool from the 1950s through the 1980s and as the Morale, Welfare, and Recreation (MWR) Compound from the 1980s until the present. The site covers approximately 20 acres along an unnamed tributary of Tank Creek. The site was given NFA with an NRP in September 2008. Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

RC was obtained through an NRP. Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: FTBR-310
Site Name: SS019 Pumphouse Building 822
Alias: SS019

STATUS

Regulatory Driver: RCRA

RRSE: MEDIUM

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	199010.....	199109
INV.....	199110.....	200409
CAP.....	200410.....	200509
DES.....	200510.....	200609
IMP(C).....	200710.....	200809
IMP(O).....	200810.....	201709

RIP Date: 200810

RC Date: 201709

SITE DESCRIPTION

Former Building 822 was a part of the Blue Ramp Hydrant System located in the central portion of Pope AAF, between Blue Ramp and the Pope runway. The Blue Ramp Hydrant System consisted of 18, 50,000-gallon USTs at three buildings and an extensive underground hydrant line delivery system located under the ramps on the northern portion of Pope Airfield. The hydrant system was in operation from 1956 through the 1990s. Surrounding land use is highly industrial, with the site located in the middle of the flight line at shark ramp.

Dissolved phase petroleum hydrocarbons were found in the groundwater during a 1991 sampling activity at the adjacent IRP site SS007. A 2005 CSA discovered free-product in groundwater wells at the site. Subsequently, the six 50,000-gallon jet fuel USTs were removed in 2008 by Weston Solutions, Inc. Diesel range organics (DRO) and GRO were found above action levels during CS during site closure. A pilot study was initiated in 2011 to remove the small amounts of remaining product on the groundwater through biological degradation. The effectiveness of the BOS 200 compound to reduce light non-aqueous phase liquid (LNAPL) pore space saturation was inconclusive due to notable water table fluctuations across the site subsequent to the injection. The site is currently undergoing active remediation (AFVR) and sampling since 2005. It is anticipated that product removal will continue quarterly with AFVR technology, as needed, through FY17. It is expected that the site will receive a NFA. Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Fort Bragg expects to be able to close this site after the indicated RA is complete and groundwater contaminate levels are below NC 2L. The site is expected to close with an NRP with LUCs Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future. The 2014 Periodic Review had no recommendations for site optimization. Current sampling and analytical protocols will remain in place. Site data will continue to be evaluated during future periodic reviews.

Site ID: FTBR-311
Site Name: SS020 Silver Ramp Spill Site
Alias: SS020

STATUS

Regulatory Driver: RCRA

RRSE:

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200010.....	200109
INV.....	200310.....	200609
IMP(C).....	200710.....	200809
IMP(O).....	200809.....	201210
LTM.....	201210.....	204508

RIP Date: 200809

RC Date: 201210

SITE DESCRIPTION

Building 704 was a part of a former 1940s-era aqua fuel delivery system located south of Surveyor Street and Thunderbolt Road at Pope AAF. Surrounding land use is highly industrial, with the site located just north of the flight line at Silver Ramp.

During a December 2004 records review, aerials and photographs from 1942-1944 depicted four USTs between Buildings 704 and 708. Closure reports or removal documentation for the four 25,000-gallon underground aviation fuel tanks could not be located. A LSA was conducted in 2005 to determine if any residual contamination may exist due to the system that historical records show was in place. The LSA did not reveal impact to soil or groundwater in excess of gross contaminant levels, but some petroleum analytes were detected in excess of unrestricted use criteria. The site was given an NFA by use of a NRP in September 2008. Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: FTBR-312

Site Name: Building 390 Golf Course Maintenance

Alias: SS516

STATUS

Regulatory Driver: RCRA

RRSE: MEDIUM

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	199010.....	200309
INV.....	200310.....	200409
CAP.....	200510.....	200609
IMP(C).....	200610.....	200709
IMP(O).....	200710.....	204502

RIP Date: 200710

RC Date: 204502

SITE DESCRIPTION

Building 390 is a former golf maintenance facility located north of the Willow Lakes Golf Course at Maverick and Academy Streets on Pope AAF. Surrounding land use is mixed-use residential, recreational, and administrative. Prior operations at the site include a golf course equipment storage and maintenance facility, and an auto hobby/repair shop.

In 1992, two on-site USTs (a 280-gallon UST and a 550-gallon UST) were removed by IT Corporation after failing leak tests. A remaining fuel oil UST released an estimated 1,000-gallons of No. 2 fuel oil in 1997. A reported release in 2002 of an unknown quantity also occurred from an on-site OWS. Releases from these two incidents resulted in subsurface contamination that includes fuel oil free-product as well as dissolved phase fuel and solvents. In August 2002, MWH Americas, Inc. removed both 550-gallon OWSs, the 1,000-gallon UST, and the 500-gallon AST. During this effort, 21 cubic yards (cy) of contaminated soil was also removed, and a free-product recovery system was installed. A CSA field investigation was performed in 2004. An AFVR effort was initiated at the site. The site is currently undergoing active remediation (AFVR) and sampling since 2004. CS during the March 2011 event showed elevated levels of benzene and naphthalene. NCDENR had requested one additional year of AFVR and sampling, but wells continued to show elevated VOC levels and measurable free-product. AFVR is currently being conducted quarterly in wells with measurable free-product until free-product thickness is reduced to 0.01 feet. An NFA is anticipated for this site.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Post-contract costs are estimated based on appropriate CLINs from this contract. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Fort Bragg expects to be able to close this site with an NFA after the indicated RA is complete and groundwater contaminate levels are below NC 2L. The site is expected to close with an NRP with LUCs Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future. The 2014 Periodic Review had no recommendations for site optimization. Current sampling and analytical protocols will remain in place. Site data will continue to be evaluated during future periodic reviews.

Site ID: FTBR-313
Site Name: ST002 POL Bulk Fuel Storage Area
Alias: ST002

STATUS

Regulatory Driver: RCRA

RRSE:

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	198410.....	198909
INV.....	198910.....	200209
IRA.....	200101.....	200101
IMP(C).....	200810.....	200909
LTM.....	200910.....	204502

RIP Date: N/A

RC Date: 200909

SITE DESCRIPTION

Site ST002 is located between Hurst Drive and Interceptor Road at Pope AAF, originated from spills and leaks from on-site aboveground storage tanks (AST) between the 1960s and the 1980s. This approximately seven-acre site serves as a jet fuel storage and distribution facility. In addition to associated components of the POL yard (railroad unloading area, underground piping, and two operations buildings); the site consists of four, JP-4 ASTs with a combined capacity of over 3,000,000 gallons. Additional tank bottom sludge was disposed of in a trench adjacent to the facility following storage tank maintenance operations, from the mid-1950s until 1975. Sludge burial results in soil and groundwater contamination above the NC SSLs. Approximately 630 cy (228 tons) of contaminated soils were removed and disposed of off-site. The excavation was backfilled with clean soil. Contaminate constituents exceeding NC 2L were found in the groundwater, but are expected to diminish over time through natural attenuation. Due to the groundwater contamination, NCDENR classified the site as low risk and LUCs were put in place to restrict the use of groundwater in the area of ST002. NFA status was achieved by use of an NRP on Sept. 24, 2009. Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: FTBR-314
Site Name: ST008 Base-wide USTs
Alias: ST008

STATUS

Regulatory Driver: RCRA

RRSE: LOW

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	198910.....	199009
INV.....	199010.....	200209
CAP.....	200210.....	200309
DES.....	200310.....	200509
IRA.....	199510.....	200609
IMP(C).....	201110.....	201209
IMP(O).....	201209.....	201709

RIP Date: 201209

RC Date: 201709

SITE DESCRIPTION

The ST008 site originated from leaks from former USTs located between Boxcar Street and Taxiway Bravo on the Pope AAF. The site formerly contained four 25,000-gallon USTs and was used as a No. 2 fuel oil storage and distribution center from 1954 to 1985. As part of a 1990 Base-wide UST evaluation program, the USTs were precision tested and one failed. In November 1992, the four tanks, ancillary piping, and fuel dispensers were excavated and removed. During excavation, fuel oil-contaminated soil was encountered and free-product was observed on water that accumulated in the open excavation. Fuel oil-contaminated soil excavated during the UST system removal was reportedly placed back into the excavation on top of a layer of plastic sheeting. The volume of No. 2 fuel oil released during the life of the USTs is not known. A CAP was completed in 2004 and recommended a bioventing system along with a passive skimming and AFVR. This treatment proved effective and the site achieved RIP. A pilot study was initiated in 2011 to remove the small amounts of remaining product on the groundwater through biological degradation. The site is currently undergoing active remediation and sampling. It is anticipated that product removal will continue, as needed, through FY17. It is expected that the site will receive a NRP. Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Fort Bragg expects to be able to close this site after the indicated RA is complete and groundwater contaminate levels are below NC 2L. The site is expected to close with an NRP with LUCs Fort Bragg must maintain the LUCs contained in the NRP, and conduct periodic reviews on this site in the future. The 2014 Periodic Review had no recommendations for site optimization. Current sampling and analytical protocols will remain in place. Site data will continue to be evaluated during future periodic reviews.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTBR-003	LANDFILL 3	199401	NFA granted by NCDENR Nov. 19, 1996.
FTBR-007	ABANDONED LANDFILL 7	199506	NFA granted by NCDENR Jul. 29, 1994.
FTBR-011	SANITARY LANDFILL 11	199006	Not eligible for IRP. Site is included in Compliance Clean-up Program.
FTBR-013	COOLYCONCH MT DEMO LANDFILL	199006	Not eligible for IRP. Permitted landfill under Solid Waste rules.
FTBR-016	ABANDONED LANDFILL 16	199703	NFA granted by NCDENR April 24, 2003.
FTBR-020	82 DIV HEATING PLANT	199006	Not eligible for IRP.
FTBR-024	18TH EOD DEMO AREA	199006	Not eligible for IRP.
FTBR-026	WTP ABANDONED LAGOON & DRYING BEDS	199006	Not eligible for IRP.
FTBR-030	LOADING/UNLOADING AREA	199703	NFA granted by NCDENR Dec. 1, 1997.
FTBR-031	ASH TANK SITE	199606	NFA granted by NCDENR July 29, 1994.
FTBR-035	OIL/WATER SEPARATORS	200310	Not eligible for IRP. Site is still active.
FTBR-036	WASHRACKS	200005	Not eligible for IRP. Site is still active.
FTBR-038	GRIT CHAMBER	199703	NFA granted by NCDENR Oct. 24, 2005.
FTBR-039	PRIMARY SEDIMENTATION TANKS	199703	NFA granted by NCDENR Oct. 24, 2005.
FTBR-040	BIOFILTERS	199703	NFA granted by NCDENR Oct. 24, 2005.
FTBR-042	SECONDARY SEDIMENTATION TANKS	199703	NFA granted by NCDENR Oct. 24, 2005.
FTBR-043	CHLORINATION FLASH MIX TANK	199703	NFA granted by NCDENR Oct. 24, 2005.
FTBR-044	CHLORINATION CONTACT TANK	199703	NFA granted by NCDENR Oct. 24, 2005.
FTBR-045	RECIRCULATION TANK	199703	NFA granted by NCDENR Oct. 24, 2005.
FTBR-046	STEPPED CASCADE	199703	NFA granted by NCDENR Oct. 24, 2005.
FTBR-050	WWTP SLUDGE DRYING BEDS	199401	Not eligible for IRP. Site is included in Compliance Clean-up Program.
FTBR-077	782D BATTERY SHOP NEUTRALIZATION TANK	199703	NFA granted by NCDENR Aug. 11, 2000.
FTBR-086	659TH BATTERY NEUTRALIZATION TANK	199703	Not eligible for IRP. Site is included in Compliance Clean-up Program. LTM is planned.
FTBR-088	659TH USED OIL PIT	199703	Not eligible for IRP. Site is included in Compliance Clean-up Program. LTM is planned.
FTBR-102	VOCATIONAL TECHNICAL TRAINING AREA	200112	NFA granted by NCDENR Sept. 14, 2001.
FTBR-104	Old ASP Site	200609	NFA Letter from NCDENR Jan. 11, 2007.
FTBR-316	Building 344 UST	201201	NCDENR site closure email on Jan. 5, 2012.
FTBR-317	Building 757 UST	201201	NCDENR site closure email on Jan. 5, 2012.
FTBR-318	Building 991 UST	201111	NFA granted by NCDENR on Nov. 4, 2011.
FTBR-319	Building 342 UST	201109	NFA granted by NCDENR on Sep. 27, 2011.
FTBR-320	Building 336 Heating Oil Tank	201104	NFA granted by NCDENR on April 5, 2011.
FTBR-321	Building 328 Heating Oil Tank	201103	NFA granted by NCDENR on March 31, 2011.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTBR-322	Building 332	201103	NFA granted by NCDENR on March 31, 2011.
FTBR-323	Building 330	201103	NFA granted by NCDENR on March 31, 2011.
FTBR-324	Building 251 UST	201005	NFA granted by NCDENR on May 6, 2010.
FTBR-325	Building 558 UST	201005	NFA granted by NCDENR on May 7, 2010.
FTBR-326	Hardfill 13	200909	Transferred from Air Force as part of BRAC 2005.
FTBR-327	CE STORAGE YARD	200907	Transferred from Air Force as part of BRAC 2005.
FTBR-329	MWR COMPOUND	200809	Transferred from Air Force as part of BRAC 2005. Site relabeled FTBR-309. Closed with NRP on Sep. 19, 2008.
FTBR-33	USED OIL USTS (OU8)	199903	Not eligible for IRP. All tanks were closed after 1986.
FTBR-330	HARDFILL #5	200802	NFA granted by NCDENR on Feb. 11, 2008.
FTBR-331	200 SERIES DORMITORY PARKING LOT	200802	NFA granted by NCDENR on Feb. 6, 2008.
FTBR-332	Hardfill 12	200609	NFA granted by NCDENR on Sep. 19, 2006.
FTBR-333	TIRE SHOP WASTE AMCUM POINT	200508	Transferred from Air Force as part of BRAC 2005. Administratively closed on Aug. 18, 2005 and reopened as FTBR-305.
FTBR-334	Hardfill 15	200605	NFA granted by NCDENR on May 26, 2006.
FTBR-335	Hardfill 14	200604	NFA granted by NCDENR on April 24, 2006.
FTBR-336	BUILDING 158 PUMPHOUSE	200502	Transferred from Air Force as part of BRAC 2005. Administratively closed on Feb. 16, 2005 and reopened as FTBR-313.
FTBR-337	AAFES STATION	201103	Transferred from Air Force as part of BRAC 2005. Site relabeled CCFTBR0313.
FTBR-338	Green Ramp Spill Site	201103	Transferred from Air Force as part of BRAC 2005. Site relabeled FTBR-304.
FTBR-339	POL/SLUDGE DISPOSAL AREA	200406	Transferred from Air Force as part of BRAC 2005.
FTBR-340	Building 755 UST	201201	NCDENR site closure email on Jan. 5, 2012.
FTBR-341	Building 729 UST	201201	NCDENR site closure email on Jan. 5, 2012.
FTBR-343	Building 338	201205	NFA granted by NCDENR May 2, 2012.
FTBR-344	Building 756 Government Gas Station	201103	Transferred from Air Force as part of BRAC 2005. Site relabeled CCFTBR0324.
FTBR-345	Bulk Fuel Storage Building OWS	201103	Transferred from Air Force as part of BRAC 2005.
FTBR-346	Special Purpose Maintenance OWS 768	201012	NFA granted by NCDENR Dec. 16, 2010.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTBR-347	Building 792 Spill	201103	Transferred from Air Force as part of BRAC 2005.
FTBR-A	WTP FUEL TANK SPILL (AOC A)	199703	Not eligible for IR. NFA granted by NCDENR in 2005 under CC Program.
FTBR-B	CLASSIFIED PAPER FUEL TANK SPILL (AOC B)	199609	NFA granted by NCDENR March 17, 1997.
FTBR-C	BLDG P-3262, FUEL SPILL (AOC C)	199703	NFA granted by NCDENR Sept. 17, 2003.
FTBR-D	BLDG. M-7951, FUEL SPILL (AOC D)	199703	NFA granted by NCDENR Sept. 17, 2003.
FTBR-E	BLDG. 8-4606, FUEL SPILL (AOC E)	199703	NFA granted by NCDENR Sept. 26, 2000.
FTBR-F	VET CLINIC INCIN. UST SPILL (AOC F)	199703	Not eligible for IRP. Site is included in Compliance Clean-up Program.
FTBR-G	LEE FIELDHOUSE UST SPILL (AOC G)	199703	NFA granted by NCDENR Sept. 17, 2003.
PBC @ Ft Bragg	PBA	201403	

IRP Schedule

Date of IRP Inception: 198410

Past Phase Completion Milestones

1986

SI (FTBR-333 - TIRE SHOP WASTE AMCUM POINT, FTBR-339 - POL/SLUDGE DISPOSAL AREA)

PA (FTBR-333 - TIRE SHOP WASTE AMCUM POINT, FTBR-339 - POL/SLUDGE DISPOSAL AREA)

1987

SI (FTBR-013 - COOLYCONCH MT DEMO LANDFILL)

RFA (FTBR-020 - 82 DIV HEATING PLANT, FTBR-024 - 18TH EOD DEMO AREA)

PA (FTBR-013 - COOLYCONCH MT DEMO LANDFILL)

CS (FTBR-020 - 82 DIV HEATING PLANT, FTBR-024 - 18TH EOD DEMO AREA)

1988

CS (FTBR-026 - WTP ABANDONED LAGOON & DRYING BEDS)

ISC (FTBR-33 - USED OIL USTS (OU8))

RFA (FTBR-001 - ABANDONED LANDFILL 1, FTBR-003 - LANDFILL 3, FTBR-004 - LANDFILL 4 & FIRE TRAINING PITS 18, FTBR-005 - ABANDONED LANDFILL 5, FTBR-007 - ABANDONED LANDFILL 7, FTBR-008 - ABANDONED LANDFILL 8, FTBR-009 - ABANDONED LANDFILL 9, FTBR-012 - ABANDONED LANDFILL 12, FTBR-014 - ABANDONED LANDFILLS 2 & 14 , FTBR-026 - WTP ABANDONED LAGOON & DRYING BEDS, FTBR-030 - LOADING/UNLOADING AREA, FTBR-031 - ASH TANK SITE, FTBR-035 - OIL/WATER SEPARATORS , FTBR-063 - DEH STORAGE COMPOUND, FTBR-069 - JEEP DISMANTLING AREA, BLDG 8-3612, FTBR-077 - 782D BATTERY SHOP NEUTRALIZATION TANK, FTBR-A - WTP FUEL TANK SPILL (AOC A), FTBR-B - CLASSIFIED PAPER FUEL TANK SPILL (AOC B))

PA (FTBR-016 - ABANDONED LANDFILL 16, FTBR-036 - WASHRACKS , FTBR-086 - 659TH BATTERY NEUTRALIZATION TANK, FTBR-088 - 659TH USED OIL PIT, FTBR-C - BLDG P-3262, FUEL SPILL (AOC C), FTBR-D - BLDG. M-7951, FUEL SPILL (AOC D), FTBR-E - BLDG. 8-4606, FUEL SPILL (AOC E), FTBR-F - VET CLINIC INCIN. UST SPILL (AOC F), FTBR-G - LEE FIELDHOUSE UST SPILL (AOC G))

1989

PA (FTBR-306 - FT001 Fire Training Area #4)

CS (FTBR-011 - SANITARY LANDFILL 11)

RFA (FTBR-011 - SANITARY LANDFILL 11)

ISC (FTBR-313 - ST002 POL Bulk Fuel Storage Area)

1990

ISC (FTBR-314 - ST008 Base-wide USTs)

INV (FTBR-33 - USED OIL USTS (OU8))

SI (FTBR-016 - ABANDONED LANDFILL 16, FTBR-036 - WASHRACKS , FTBR-086 - 659TH BATTERY NEUTRALIZATION TANK, FTBR-088 - 659TH USED OIL PIT, FTBR-C - BLDG P-3262, FUEL SPILL (AOC C), FTBR-D - BLDG. M-7951, FUEL SPILL (AOC D), FTBR-E - BLDG. 8-4606, FUEL SPILL (AOC E), FTBR-F - VET CLINIC INCIN. UST SPILL (AOC F), FTBR-G - LEE FIELDHOUSE UST SPILL (AOC G))

CS (FTBR-001 - ABANDONED LANDFILL 1, FTBR-003 - LANDFILL 3, FTBR-004 - LANDFILL 4 & FIRE TRAINING PITS 18, FTBR-005 - ABANDONED LANDFILL 5, FTBR-007 - ABANDONED LANDFILL 7, FTBR-008 - ABANDONED LANDFILL 8, FTBR-009 - ABANDONED LANDFILL 9, FTBR-012 - ABANDONED LANDFILL 12, FTBR-014 - ABANDONED LANDFILLS 2 & 14 , FTBR-030 - LOADING/UNLOADING AREA, FTBR-031 - ASH TANK SITE, FTBR-035 - OIL/WATER SEPARATORS , FTBR-063 - DEH STORAGE COMPOUND, FTBR-069 - JEEP DISMANTLING AREA, BLDG 8-3612, FTBR-077 - 782D BATTERY SHOP NEUTRALIZATION TANK, FTBR-A - WTP FUEL TANK SPILL (AOC A), FTBR-B - CLASSIFIED PAPER FUEL TANK SPILL (AOC B))

1991

CS (FTBR-102 - VOCATIONAL TECHNICAL TRAINING AREA)

RFA (FTBR-102 - VOCATIONAL TECHNICAL TRAINING AREA)

ISC (FTBR-310 - SS019 Pumphouse Building 822)

1992

PA (FTBR-038 - GRIT CHAMBER, FTBR-039 - PRIMARY SEDIMENTATION TANKS, FTBR-040 - BIOFILTERS)

IRP Schedule

1993

SI (FTBR-038 - GRIT CHAMBER, FTBR-039 - PRIMARY SEDIMENTATION TANKS)
PA (FTBR-042 - SECONDARY SEDIMENTATION TANKS, FTBR-043 - CHLORINATION FLASH MIX TANK, FTBR-044 - CHLORINATION CONTACT TANK, FTBR-045 - RECIRCULATION TANK, FTBR-046 - STEPPED CASCADE, FTBR-050 - WWTP SLUDGE DRYING BEDS)

1994

RFI/CMS (FTBR-003 - LANDFILL 3, FTBR-007 - ABANDONED LANDFILL 7, FTBR-031 - ASH TANK SITE, FTBR-B - CLASSIFIED PAPER FUEL TANK SPILL (AOC B))
SI (FTBR-040 - BIOFILTERS, FTBR-042 - SECONDARY SEDIMENTATION TANKS, FTBR-043 - CHLORINATION FLASH MIX TANK, FTBR-044 - CHLORINATION CONTACT TANK, FTBR-045 - RECIRCULATION TANK, FTBR-046 - STEPPED CASCADE, FTBR-050 - WWTP SLUDGE DRYING BEDS, FTBR-303 - LF012 Hardfill Number 7)
PA (FTBR-300 - LF005 Hardfill Number 2, FTBR-301 - LF006 Hardfill Number 8, FTBR-302 - LF010 Hardfill Number 1, FTBR-303 - LF012 Hardfill Number 7, FTBR-305 - SS018 Liquid Oxygen Area Spill Site)

1995

SI (FTBR-300 - LF005 Hardfill Number 2, FTBR-301 - LF006 Hardfill Number 8, FTBR-302 - LF010 Hardfill Number 1, FTBR-327 - CE STORAGE YARD, FTBR-329 - MWR COMPOUND, FTBR-330 - HARDFILL #5, FTBR-331 - 200 SERIES DORMITORY PARKING LOT, FTBR-336 - BUILDING 158 PUMPHOUSE, FTBR-337 - AAFES STATION)
PA (FTBR-327 - CE STORAGE YARD, FTBR-329 - MWR COMPOUND, FTBR-330 - HARDFILL #5, FTBR-331 - 200 SERIES DORMITORY PARKING LOT, FTBR-336 - BUILDING 158 PUMPHOUSE, FTBR-337 - AAFES STATION)

1996

IRA (FTBR-102 - VOCATIONAL TECHNICAL TRAINING AREA)

1998

RI/FS (FTBR-306 - FT001 Fire Training Area #4)
ISC (FTBR-308 - SS007 Blue Ramp JP-4 Spill Site)

1999

IRA (FTBR-339 - POL/SLUDGE DISPOSAL AREA)
RFA (PBC @ Ft Bragg - PBA)

2000

RFA (FTBR-103 - MALLONEE VILLAGE GAS STATION)
CS (FTBR-103 - MALLONEE VILLAGE GAS STATION)
IRA (FTBR-063 - DEH STORAGE COMPOUND)

2001

ISC (FTBR-311 - SS020 Silver Ramp Spill Site)
IRA (FTBR-313 - ST002 POL Bulk Fuel Storage Area)

2002

INV (FTBR-308 - SS007 Blue Ramp JP-4 Spill Site, FTBR-313 - ST002 POL Bulk Fuel Storage Area , FTBR-314 - ST008 Base-wide USTs)
RFI/CMS (FTBR-012 - ABANDONED LANDFILL 12, FTBR-014 - ABANDONED LANDFILLS 2 & 14 , FTBR-102 - VOCATIONAL TECHNICAL TRAINING AREA)
SI (FTBR-305 - SS018 Liquid Oxygen Area Spill Site)

2003

RFI/CMS (FTBR-001 - ABANDONED LANDFILL 1, FTBR-005 - ABANDONED LANDFILL 5, FTBR-008 - ABANDONED LANDFILL 8, FTBR-009 - ABANDONED LANDFILL 9)
CAP (FTBR-314 - ST008 Base-wide USTs)
CMI(C) (FTBR-001 - ABANDONED LANDFILL 1)
IRA (FTBR-035 - OIL/WATER SEPARATORS , FTBR-306 - FT001 Fire Training Area #4, FTBR-333 - TIRE SHOP)

IRP Schedule

	WASTE AMCUM POINT, FTBR-336 - BUILDING 158 PUMPHOUSE)
DES	(FTBR-009 - ABANDONED LANDFILL 9, FTBR-012 - ABANDONED LANDFILL 12)
RI/FS	(FTBR-336 - BUILDING 158 PUMPHOUSE)
ISC	(FTBR-312 - Building 390 Golf Course Maintenanc)
2004	
RFA	(FTBR-104 - Old ASP Site)
CMI(C)	(FTBR-012 - ABANDONED LANDFILL 12)
RFI/CMS	(FTBR-004 - LANDFILL 4 & FIRE TRAINING PITS 18, FTBR-035 - OIL/WATER SEPARATORS , FTBR-063 - DEH STORAGE COMPOUND)
RI/FS	(FTBR-339 - POL/SLUDGE DISPOSAL AREA)
INV	(FTBR-310 - SS019 Pumphouse Building 822, FTBR-312 - Building 390 Golf Course Maintenanc)
PA	(FTBR-304 - SS009 3rd Aerial Port Squadron Spil, FTBR-340 - Building 755 UST, FTBR-341 - Building 729 UST)
2005	
PA	(FTBR-338 - Green Ramp Spill Site)
CMI(C)	(FTBR-004 - LANDFILL 4 & FIRE TRAINING PITS 18, FTBR-005 - ABANDONED LANDFILL 5, FTBR-008 - ABANDONED LANDFILL 8, FTBR-009 - ABANDONED LANDFILL 9)
DES	(FTBR-314 - ST008 Base-wide USTs)
ISC	(FTBR-309 - SS014 Morale, Welfare, and Recreati)
CAP	(FTBR-308 - SS007 Blue Ramp JP-4 Spill Site, FTBR-310 - SS019 Pumphouse Building 822)
RI/FS	(FTBR-333 - TIRE SHOP WASTE AMCUM POINT, FTBR-337 - AAFES STATION)
2006	
DES	(FTBR-308 - SS007 Blue Ramp JP-4 Spill Site, FTBR-310 - SS019 Pumphouse Building 822)
IRA	(FTBR-314 - ST008 Base-wide USTs)
CS	(FTBR-104 - Old ASP Site)
CAP	(FTBR-312 - Building 390 Golf Course Maintenanc)
SI	(FTBR-304 - SS009 3rd Aerial Port Squadron Spil, FTBR-326 - Hardfill 13, FTBR-332 - Hardfill 12, FTBR-334 - Hardfill 15, FTBR-335 - Hardfill 14)
PA	(FTBR-326 - Hardfill 13, FTBR-332 - Hardfill 12, FTBR-334 - Hardfill 15, FTBR-335 - Hardfill 14)
INV	(FTBR-311 - SS020 Silver Ramp Spill Site)
2007	
ISC	(FTBR-307 - PL505 Building 164 Hydrant Fuel Lin)
RFI/CMS	(FTBR-069 - JEEP DISMANTLING AREA, BLDG 8-3612, FTBR-103 - MALLONEE VILLAGE GAS STATION)
CMI(O)	(FTBR-001 - ABANDONED LANDFILL 1)
INV	(FTBR-309 - SS014 Morale, Welfare, and Recreati)
RA(C)	(FTBR-306 - FT001 Fire Training Area #4)
IMP(C)	(FTBR-308 - SS007 Blue Ramp JP-4 Spill Site, FTBR-312 - Building 390 Golf Course Maintenanc)
2008	
RFI/CMS	(PBC @ Ft Bragg - PBA)
INV	(FTBR-307 - PL505 Building 164 Hydrant Fuel Lin)
RI/FS	(FTBR-301 - LF006 Hardfill Number 8, FTBR-329 - MWR COMPOUND, FTBR-330 - HARDFILL #5, FTBR-331 - 200 SERIES DORMITORY PARKING LOT)
DES	(FTBR-069 - JEEP DISMANTLING AREA, BLDG 8-3612, FTBR-103 - MALLONEE VILLAGE GAS STATION)
CMI(C)	(FTBR-063 - DEH STORAGE COMPOUND, FTBR-103 - MALLONEE VILLAGE GAS STATION, PBC @ Ft Bragg - PBA)
IMP(C)	(FTBR-309 - SS014 Morale, Welfare, and Recreati, FTBR-310 - SS019 Pumphouse Building 822, FTBR-311 -

SS020 Silver Ramp Spill Site)

2009

- IMP(C) (FTBR-307 - PL505 Building 164 Hydrant Fuel Lin, FTBR-313 - ST002 POL Bulk Fuel Storage Area)
- RI/FS (FTBR-302 - LF010 Hardfill Number 1, FTBR-326 - Hardfill 13, FTBR-327 - CE STORAGE YARD)
- RA(O) (FTBR-306 - FT001 Fire Training Area #4)
- CMI(C) (FTBR-069 - JEEP DISMANTLING AREA, BLDG 8-3612)

2010

- PA (FTBR-324 - Building 251 UST, FTBR-325 - Building 558 UST)
- RI/FS (FTBR-300 - LF005 Hardfill Number 2)

2011

- PA (FTBR-319 - Building 342 UST, FTBR-320 - Building 336 Heating Oil Tank, FTBR-321 - Building 328 Heating Oil Tank, FTBR-322 - Building 332, FTBR-323 - Building 330, FTBR-343 - Building 338, FTBR-344 - Building 756 Government Gas Station, FTBR-345 - Bulk Fuel Storage Building OWS, FTBR-346 - Special Purpose Maintenance OWS 768, FTBR-347 - Building 792 Spill)

2012

- RA(C) (FTBR-304 - SS009 3rd Aerial Port Squadron Spil, FTBR-305 - SS018 Liquid Oxygen Area Spill Site)
- PA (FTBR-316 - Building 344 UST, FTBR-317 - Building 757 UST, FTBR-318 - Building 991 UST)
- RI/FS (FTBR-303 - LF012 Hardfill Number 7, FTBR-304 - SS009 3rd Aerial Port Squadron Spil, FTBR-305 - SS018 Liquid Oxygen Area Spill Site)
- IMP(C) (FTBR-314 - ST008 Base-wide USTs)

2013

- IMP(O) (FTBR-311 - SS020 Silver Ramp Spill Site)

2014

- CMI(O) (PBC @ Ft Bragg - PBA)
- IMP(O) (FTBR-307 - PL505 Building 164 Hydrant Fuel Lin)

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
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Final RA(C) Completion Date: 201510

Schedule for Next Five-Year Review: 2019

Estimated Completion Date of IRP at Installation (including LTM phase): 204509

FORT BRAGG IRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-001	ABANDONED LANDFILL 1	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-004	LANDFILL 4 & FIRE TRAINING PITS 18	CMI(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-005	ABANDONED LANDFILL 5	CMI(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-008	ABANDONED LANDFILL 8	CMI(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-009	ABANDONED LANDFILL 9	CMI(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-012	ABANDONED LANDFILL 12	CMI(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-014	ABANDONED LANDFILLS 2 & 14	DES						
		CMI(C)						
		CMI(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-063	DEH STORAGE COMPOUND	CMI(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-069	JEEP DISMANTLING AREA, BLDG 8- 3612	CMI(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-103	MALLONEE VILLAGE GAS STATION	CMI(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-300	LF005 Hardfill Number 2	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-301	LF006 Hardfill Number 8	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-302	LF010 Hardfill Number 1	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-303	LF012 Hardfill Number 7	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-304	SS009 3rd Aerial Port Squadron Spil	RA(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-305	SS018 Liquid Oxygen Area Spill Site	RA(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-306	FT001 Fire Training Area #4	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-307	PL505 Building 164 Hydrant Fuel Lin	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-308	SS007 Blue Ramp JP-4 Spill Site	IMP(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-309	SS014 Morale, Welfare, and Recreati	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-310	SS019 Pumphouse Building 822	IMP(O)						

FORT BRAGG IRP Schedule

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-311	SS020 Silver Ramp Spill Site	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-312	Building 390 Golf Course Maintenanc	IMP(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-313	ST002 POL Bulk Fuel Storage Area	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-314	ST008 Base-wide USTs	IMP(O)						

FORT BRAGG
Army Defense Environmental Restoration Program
Military Munitions Response Program

MMRP Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 12/7

Installation Site Types with Future and/or Underway Phases

- 1 Firing Range
(FTBR-011-R-01)
- 1 Small Arms Range
(FTBR-010-R-01)
- 1 Storage Area
(FTBR-012-R-01)
- 2 Unexploded Munitions/Ordnance
(FTBR-008-R-01, FTBR-009-R-01)

Most Widespread Contaminants of Concern

Explosives, Metals, Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern

Building Decontamination, Soil

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

Site ID	Site Name	Action	Remedy	FY
FTBR-001-R-01	Former Munitions Storage Facility	IRA	UXO CLEARANCE	2012

Duration of MMRP

Date of MMRP Inception 200509

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201708/201708

Date of MMRP completion including Long Term Management (LTM): 201603

MMRP Contamination Assessment

Contamination Assessment Overview

A 2010 Archive Search Report for Historical Ranges at Fort Bragg discovered 90 historical ranges. The archive search report will act as the preliminary assessment for the historical Fort Bragg ranges. Of all of the historic ranges identified, six were selected as requiring further investigation. Sites FTBR-008-R-01, FTBR-009-R-01, FTBR-010-R-01, FTBR-011-R-01, and FTBR-012-R-01 will be investigated with an SI through the MMRP in fall 2014. An SI was completed for site FTBR-001-R-01 in 2013. An NFA was issued in 2013 by NCDENR.

Cleanup Exit Strategy

No cleanup past the SI is anticipated. Should munitions and explosives of concern (MEC) or munitions debris (MD) be discovered, the site(s) will move into a RI.

MMRP Previous Studies

	Title	Author	Date
2010	Archive Search Report for Historic Ranges at Fort Bragg	USACE	FEB-2010
2013	Site Inspection Report Former Ammunition Supply Point FTBR-001-R-01	USACE	JAN-2013
	Final Decision Document for No Further Action at Former Ammunition Supply Point (Former ASP) Military Munitions Response Program Site FTBR-001-R-01	USACE	OCT-2013

FORT BRAGG

Military Munitions Response Program

Site Descriptions

Site ID: FTBR-008-R-01
Site Name: Former Fragmentation Field
Alias: Frag Field

STATUS

Regulatory Driver: CERCLA

MRSPP Score: No known or suspected hazard

Contaminants of Concern: Explosives, Metals, Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Soil

Phases	Start	End
PA.....	200911.....	201002
SI.....	201409.....	201603

RIP Date: N/A

RC Date: 201708

SITE DESCRIPTION

The Former Fragmentation Field is an approximately 600-acre former munitions range located on the southwestern-most end of the Pope AAF, between Manchester and Butner Roads. Surrounding land use is mixed use, with administrative and industrial operations, as well as multi-tenant barracks, in the immediate area. Approximately one-half of the site lies on the Pope AAF.

Although the airfield was established shortly after Camp Bragg's induction in 1919, the Fragmentation Field did not appear on historical maps until 1941. This site was used by Army pilots for machine-gun practice and to test bombs by dropping them into the area.

According to historical aerial photographs and maps, the Former Fragmentation Field was used until at least 1969. Aerial photographs depict a large amount of construction along the area bordering the airfield since 1951. A majority of the site is currently developed, with approximately 140 acres undisturbed.

An SI is required to determine the presence or absence of hazardous substances at the site. The site is expected to be completed with an NFA.

This site is included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. RIP/RC is anticipated by the end of the contract (September 2017). Future work, if necessary, will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

No cleanup past the SI is anticipated. Should MEC or munitions debris MD be discovered, the site will move into a RI.

Site ID: FTBR-009-R-01
Site Name: Former Magazine Area
Alias: Mag Area

STATUS

Regulatory Driver: CERCLA

MRSPP Score: No known or suspected hazard

Contaminants of Concern: Explosives, Metals, Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Soil

Phases	Start	End
PA.....	200911.....	201002
SI.....	201409.....	201603

RIP Date: N/A

RC Date: 201708

SITE DESCRIPTION

The former magazine area (ASP) is an approximately 10-acre former ammunition supply point located within the current cantonment area of Fort Bragg, between Manyard and Loop Road, west of Womack Hospital. Surrounding land use is mixed use, with multi-tenant residential housing and hospital operation in the immediate area. The site is currently developed with the All American Expressway and Loop Road, with approximately one-half of the site undeveloped wooded areas.

Historical research indicates this former magazine area was operational as early as 1919 and could have been used until the 1940s as an ammunition storage area.

An SI is required to determine the presence or absence of hazardous substances at the site. The site is expected to be completed with an NFA.

This site is included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. RIP/RC is anticipated by the end of the contract (September 2017). Future work, if necessary, will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

No cleanup past the SI is anticipated. Should MEC or MD be discovered, the site will move into a RI.

Site ID: FTBR-010-R-01
Site Name: Former Pistol Range
Alias: Pistol Rng

STATUS

Regulatory Driver: CERCLA

MRSPP Score: No known or suspected hazard

Contaminants of Concern: Explosives, Metals, Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Soil

Phases	Start	End
PA.....	200911.....	201002
SI.....	201409.....	201603
RIP Date:	N/A	
RC Date:	201708	

SITE DESCRIPTION

The former pistol range is an approximately 224-acre former firing range located within the current cantonment area of Fort Bragg. Surrounding land use is mixed use, with multi-tenant residential housing and barracks, and hospital operations in the immediate area. The majority of the site is currently developed and contains Longstreet Road and the All American Expressway.

This site was reportedly used during the 1930s and 1940s as a pistol range; however, the setting for the pistol range (indoor or on a field) is unknown.

An SI is required to determine the presence or absence of hazardous substances at the site. The site is expected to be completed with an NFA.

This site is included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. RIP/RC is anticipated by the end of the contract (201709). Future work, if necessary, will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

No cleanup past the SI is anticipated. Should MEC or MD be discovered, the site will move into a RI.

Site ID: FTBR-011-R-01
Site Name: Former Artillery Test Fire Sector
Alias: Range 6

STATUS

Regulatory Driver: CERCLA

MRSPP Score: No known or suspected hazard

Contaminants of Concern: Explosives, Metals, Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Soil

Phases	Start	End
PA.....	200911.....	201002
SI.....	201409.....	201603

RIP Date: N/A

RC Date: 201708

SITE DESCRIPTION

The Former Artillery Test Fire Sector/Range 6 was a former firing range located on Fort Bragg. The former range oriented west from a firing point on the southeast edge of the cantonment area, located south of the Field Artillery Training Center, and east of Beaver Creek, northeast of Cottonade Pond and the Post Farm Area, and just west and astride of Fayetteville Road. Although the former range covers approximately 8,200 acres and encompasses three-fourths of the width of Fort Bragg, only the firing point will be assessed in this effort. The former firing point is currently located on the Stryker Golf Course.

The Artillery Test Fire Sector/Range 6 was occasionally used for firing the eight-inch gun. The artillery test-fire sector/range was used during the early-1940s. However, based on recovered historic maps, the actual start and end dates the artillery test-fire sector/range was used could not be determined.

An SI is required to determine the presence or absence of hazardous substances at the site. The site is expected to be completed with an NFA.

This site is included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. RIP/RC is anticipated by the end of the contract (September 2017). Future work, if necessary, will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

No cleanup past the SI is anticipated. Should MEC or MD be discovered, the site will move into a RI.

Site ID: FTBR-012-R-01
Site Name: Former Pope ASP, 5 Acre Site
Alias: Pope ASP

STATUS

Regulatory Driver: CERCLA

MRSPP Score: No known or suspected hazard

Contaminants of Concern: Explosives, Metals, Munitions and explosives of concern (MEC), Munitions constituents (MC)

Media of Concern: Soil

Phases	Start	End
PA.....	200708.....	200810
SI.....	201409.....	201603
RIP Date:	N/A	
RC Date:	201708	

SITE DESCRIPTION

The former Pope AAF ASP was the second of Pope's ASPs, and consisted of a small five-acre site located on the northeastern corner of Pope AAF. The site is developed with two ammunition bunkers and three buildings, and is located along Ammo Road and West Manchester Road. Surrounding land use is mixed use, with administrative and industrial operations, as well as multi-tenant barracks, in the immediate area.

The former ASP, also known as the Manchester Munitions Storage Area, was utilized to store air craft munitions for A10s and F16s, from the 1950s to as late as March 2010 when the Air Force lands were transferred to the Army during the BRAC initiative. Additionally, Building 578 was utilized for missile maintenance. Known storage items include: small arms, AIM 9 Missiles, CXU-3/4 spotting cartridges, smoke grenades, chaff cartridges, and flare cartridges.

An SI is required to determine the presence or absence of hazardous substances at the site. The site is expected to be completed with an NFA.

This site is included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. RIP/RC is anticipated by the end of the contract (September 2017). Future work, if necessary, will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

No cleanup past the SI is anticipated. Should MEC or MD be discovered, the site will move into a RI.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
FTBR-001-R-01	Former Munitions Storage Facility	201311	Final Decision Document for No Further Action at Former Ammunition Supply Point (Former ASP) Military Munitions Response Program Site FTBR-001-R-01
FTBR-002-R-01	EOD Training (Proficiency) Range	200906	Pope Air Force Base Letter to NCDENR, subject: Request for No Further Action at four Munitions Response Areas: Explosive Ordnance Disposal (Proficiency) Training Range (EOD140), Security Forces Training Area (TM693), Former Rifle Range 5 (SR694), and WWII Skeet Range (TS695), dated May 1, 2009
FTBR-003-R-01	Former Rifle Range 5	200906	Pope Air Force Base Letter to NCDENR, subject: Request for No Further Action at four Munitions Response Areas: Explosive Ordnance Disposal (Proficiency) Training Range (EOD140), Security Forces Training Area (TM693), Former Rifle Range 5 (SR694), and WWII Skeet Range (TS695), dated May 1, 2009
FTBR-004-R-01	Security Forces Training Area	200906	Pope Air Force Base Letter to NCDENR, subject: Request for No Further Action at four Munitions Response Areas: Explosive Ordnance Disposal (Proficiency) Training Range (EOD140), Security Forces Training Area (TM693), Former Rifle Range 5 (SR694), and WWII Skeet Range (TS695), dated May 1, 2009
FTBR-005-R-01	Skeet Range	200906	DDESB Approval of Explosives Safety Submission, No Further Action, Pope Air Force Base, Cumberland County, NC
FTBR-006-R-01	WW II Skeet Range	200906	Pope Air Force Base Letter to NCDENR, subject: Request for No Further Action at four Munitions Response Areas: Explosive Ordnance Disposal (Proficiency) Training Range (EOD140), Security Forces Training Area (TM693), Former Rifle Range 5 (SR694), and WWII Skeet Range (TS695), dated May 1, 2009
FTBR-007-R-01	Chemical Training Site	200902	Final Report Comprehensive Site Evaluation Phase II, Supplemental Investigation for the Chemical Training Site (CW691) and Skeet Range 692) Pope Air Force Base

MMRP Schedule

Date of MMRP Inception 200509

Past Phase Completion Milestones

2006

PA (FTBR-002-R-01 - EOD Training (Proficiency) Range, FTBR-005-R-01 - Skeet Range, FTBR-007-R-01 - Chemical Training Site)

2009

PA (FTBR-003-R-01 - Former Rifle Range 5, FTBR-004-R-01 - Security Forces Training Area, FTBR-006-R-01 - WW II Skeet Range, FTBR-012-R-01 - Former Pope ASP, 5 Acre Site)

SI (FTBR-002-R-01 - EOD Training (Proficiency) Range, FTBR-005-R-01 - Skeet Range, FTBR-007-R-01 - Chemical Training Site)

2010

PA (FTBR-001-R-01 - Former Munitions Storage Facility, FTBR-008-R-01 - Former Fragmentation Field, FTBR-009-R-01 - Former Magazine Area, FTBR-010-R-01 - Former Pistol Range, FTBR-011-R-01 - Former Artillery Test Fire Sector)

2012

IRA (FTBR-001-R-01 - Former Munitions Storage Facility)

2013

SI (FTBR-001-R-01 - Former Munitions Storage Facility)

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:

Schedule for Next Five-Year Review: 2019

Estimated Completion Date of MMRP at Installation (including LTM phase): 201603

FORT BRAGG MMRP Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-008-R-01	Former Fragmentation Field	SI						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-009-R-01	Former Magazine Area	SI						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-010-R-01	Former Pistol Range	SI						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-011-R-01	Former Artillery Test Fire Sector	SI						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
FTBR-012-R-01	Former Pope ASP, 5 Acre Site	SI						

FORT BRAGG
Army Defense Environmental Restoration Program
Compliance Restoration

CR Summary

Installation Total Army Environmental Database-Restoration (AEDB-R) Sites/Closeout Sites Count: 83/50

Installation Site Types with Future and/or Underway Phases

3	Above Ground Storage Tank (CCFTBR0038, CCFTBR0044, CCFTBR0103)
2	Contaminated Ground Water (CCFTBR0011, CCFTBR0074)
1	Oil Water Separator (CCFTBR0039)
2	Spill Site Area (CCFTBR-H, CCFTBR0100)
24	Underground Storage Tank (CCFTBR0013, CCFTBR0015, CCFTBR0016, CCFTBR0017, CCFTBR0019, CCFTBR0021, CCFTBR0024, CCFTBR0027, CCFTBR0043, CCFTBR0046, CCFTBR0048, CCFTBR0067, CCFTBR0068, CCFTBR0080, CCFTBR0089, CCFTBR0097, CCFTBR0098, CCFTBR0310, CCFTBR0312, CCFTBR0313, CCFTBR0314, CCFTBR0323, CCFTBR0324, CCFTBR0328)
1	Underground Tank Farm (CCFTBR0037)

Most Widespread Contaminants of Concern

Petroleum, Oil and Lubricants (POL)

Media of Concern

Groundwater, Soil

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

Site ID	Site Name	Action	Remedy	FY
CCFTBR001	HW SITE INVESTIGATION	FRA	NATURAL ATTENUATION	2007
1	(RFI) OU 6			
CCFTBR004	AST Remediation Fluoride Spill	FRA	IN-SITU SOIL TREATMENT	2008
4				
CCFTBR004	AST Remediation Fluoride Spill	FRA	BIOREMEDIATION - IN SITU	2008
4			GROUNDWATER	
CCFTBR001	UST REMEDIATION, PHASE II	IRA	FREE PRODUCT RECOVERY	2009
7	BLDG 8-5476			
CCFTBR003	RCRA Investigation - AST	FRA	NATURAL ATTENUATION	2009
8	BLDG A-2709			
CC	PBA@CR	FRA	OTHER	2010
PBC@Bragg				
CCFTBR002	UST REMEDIATION, PHASE II	IRA	FREE PRODUCT RECOVERY	2010
1	BLDG C-3515			
CCFTBR002	UST REMEDIATION, PHASE II	FRA	NATURAL ATTENUATION	2010
7	BLDG M-2125			
CCFTBR001	UST REMEDIATION, CSA POL	IRA	FREE PRODUCT RECOVERY	2011
3	Point #1			
CCFTBR001	UST REMEDIATION, PHASE II	IRA	FREE PRODUCT RECOVERY	2011
5	BLDG 6-9344			
CCFTBR002	UST REMEDIATION, PHASE II	FRA	FREE PRODUCT RECOVERY	2011
1	BLDG C-3515			
CCFTBR002	UST REMEDIATION, PHASE II	IRA	FREE PRODUCT RECOVERY	2011
2	BLDG C-9229			
CCFTBR002	UST REMEDIATION, PHASE II	FRA	NATURAL ATTENUATION	2011
4	BLDG D-2340-A			
CCFTBR002	UST REMEDIATION, PHASE II	FRA	NATURAL ATTENUATION	2011
5	BLDG H-2260-B			

CR Summary

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

Site ID	Site Name	Action	Remedy	FY
CCFTBR004 0	UST Remediation, 2-4717A	FRA	NATURAL ATTENUATION	2011
CCFTBR004 3	UST Remediation, D-1402	FRA	NATURAL ATTENUATION	2011
CCFTBR004 8	UST Investigation, 2-3627-A/B	FRA	NATURAL ATTENUATION	2011
CCFTBR002 2	UST REMEDIATION, PHASE II BLDG C-9229	FRA	INSTITUTIONAL CONTROLS	2012
CCFTBR003 7	UST Remediation - SAAF Hydrant System	IRA	FREE PRODUCT RECOVERY	2012
CCFTBR005 0	UST Remediation, D-2340-B	FRA	NATURAL ATTENUATION	2012
CCFTBR001 3	UST REMEDIATION, CSA POL Point #1	FRA	INSTITUTIONAL CONTROLS	2013
CCFTBR001 5	UST REMEDIATION, PHASE II BLDG 6-9344	FRA	INSTITUTIONAL CONTROLS	2013
CCFTBR001 6	UST REMEDIATION, PHASE II 8-3004 POL #2	FRA	BIOREMEDIATION - IN SITU GROUNDWATER	2013
CCFTBR001 7	UST REMEDIATION, PHASE II BLDG 8-5476	FRA	GROUND WATER TREATMENT	2013
CCFTBR003 7	UST Remediation - SAAF Hydrant System	FRA	INSTITUTIONAL CONTROLS	2013
CCFTBR004 2	UST Remediation, C-8727-A	FRA	FREE PRODUCT RECOVERY	2013
CCFTBR006 7	UST Monitoring, C-9224	FRA	NATURAL ATTENUATION	2013
CCFTBR009 8	UST Investigation, C-8727-B	FRA	INSTITUTIONAL CONTROLS	2014
CCFTBR009 4	JIB Soil Removal Project	FRA	REMOVAL	2015

Duration of CR

Date of CR Inception: 198801

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 204509/204509

Date of CR completion including Long Term Management (LTM): 204512

CR Contamination Assessment

Contamination Assessment Overview

Environmental restoration activities include the IRP and MMRP. On Dec. 29, 2008, the Office of the Deputy Under Secretary of Defense for Installations and Environment, [ODUSD (I&E)], issued an interim policy for Defense Environmental Restoration Program (DERP) eligibility that rescinded the 1986 eligibility date for the IRP and the 2002 eligibility date for the MMRP. This made many sites previously addressed in the Army's Compliance-related Cleanup (CC) Program eligible for the DERP. Sites that are now eligible for the Munitions Response (MR) program have been migrated from Army Environmental Database - Compliance-related Cleanup (AEDB-CC) and given the naming convention of other MR sites. The newly eligible non-MR type sites are considered to be Installation Restoration (IR) sites; however, the newly eligible sites are being coded as CR in AEDB-R to distinguish them from the original IR sites and IR metrics.

Over time, Fort Bragg's diversified activities (vehicle maintenance and repair, land management, utility operations, and commercial processes) resulted in a variety of wastes being generated. These wastes consist primarily of the following:

- Petroleum products
- Pesticides/herbicides
- Paint products
- Antifreeze
- Radiological wastes
- Construction/demolition debris
- Waste acids
- Solvents
- Medical wastes
- PCBs
- Metals

As Fort Bragg modernizes its infrastructure, storage tanks, washracks, grease racks, OWSs, etc., are removed and sampled. Currently, there are 36 active CR sites.

Fort Bragg has no known off-post contamination. Groundwater underlying Fort Bragg was shown to be contaminated with solvents, POL, metals, and pesticides. Groundwater at Fort Bragg is not currently used as a source for drinking water.

Cleanup Exit Strategy

All of the 36 open CR sites are included in PBA contracts, which takes many sites to RIP/RC or full site closure. Fourteen of the open CR sites currently have site closure with with an NRP, with LUCs in the LTM phase.

CR Previous Studies

Year	Title	Author	Date
1996	Building 708 Underground Storage Tank Site Characterization Report (CCFTBR0324)	Parsons Engineering Science, Inc.	NOV-1996
2011	Notice of Residual Petroleum, D-1926 (CCFTBR0068)	NCDENR	JUN-2011
	Notice of Residual Petroleum, 2-3627-AB (CCFTBR0048)	NCDENR	JUL-2011
	Notice of Residual Petroleum, A-3686 (CCFTBR0019)	NCDENR	JUL-2011
	Notice of Residual Petroleum, M-2125 (CCFTBR0027)	NCDENR	JUL-2011
	Notice of Residual Petroleum, D-1402 (CCFTBR0043)	NCDENR	JUL-2011
2012	Request for Unrestricted Site Closure, Former Underground Storage Tank (UST) D-2340B (CCFTBR0050)	Parsons	JAN-2012
	Tank Closure Assessment Report, FY11 Heating Oil Tank Removal, Building C-8727-B Motor Pool (CCFTBR0098)	Aerostar	MAR-2012
	Request for Site Closure, Former Underground Storage Tank (UST) C-9224 (CCFTBR0067)	Parsons	MAR-2012
	Tank Closure Assessment Report, FY11 Heating Oil Tank Removal, Building J-1138 (CCFTBR0099)	Aerostar	MAR-2012
	Golf Course Soil Investigation (CCFTBR-H)	US Corps of Engineers - Savannah District	APR-2012
	Golf Course Soil Investigation - Additional Sampling (CCFTBR-H)	US Corps of Engineers - Savannah District	MAY-2012
	Corrective Action Plan Monitoring Report, Third Quarter 2011-First Quarter 2012 Events (CCFTBR0013, CCFTBR0015, CCFTBR0017, CCFTBR0021, CCFTBR0022, CCFTBR0037, CCFTBR0042)	Parsons	MAY-2012
	Long Term Monitoring Report, Former Above Ground Storage Tank A-2709, March 2012 Sampling Event (CCFTBR0038)	Parsons	AUG-2012
	Pope Air Force Base Golf Course Soil Pesticide Investigation (CCFTBR-H)	US Corps of Engineers - Savannah District	SEP-2012
	Notice of Residual Petroleum, C-9224 A and B (CCFTBR0067)	NCDENR	NOV-2012
	RCRA Facility Investigation (RFI) Report, CCFTBR0074 (Site 74), Cook Street Warehouse Complex	Parsons	DEC-2012
	2013	RCRA Facility Investigation (RFI) Report, CCFTBR0074 (Site 74), Cook Street Warehouse Complex	Parsons Infrastructure and Technology Group, Inc.
Phase I Limited Site/Soil Assessment Report (CCFTBR0100)		Henry Nemargut Engineering Services, Inc.	FEB-2013
Soil Assessment Report PN 79655 SOF Training Facility JSOC (CCFTBR0094)		Henry Nemargut Engineering Services	FEB-2013
Notice of No Further Action (CCFTBR0046)		NCDENR	MAR-2013
Notice of Residual Petroleum, 4-3124-A (CCFTBR0080)		NCDENR	MAY-2013
Notice of Residual Petroleum, 2-1731-A (CCFTBR0097)		NCDENR	MAY-2013
Corrective Action Plan Monitoring Report, Second Quarter 2012 - First Quarter 2013 Events, Compliance		Parsons	MAY-2013

CR Previous Studies

2013

Title	Author	Date
Cleanup Site CCFTBR0013		
Corrective Action Plan Monitoring Report, Second Quarter 2012 - First Quarter 2013 Events, Compliance Cleanup Site CCFTBR0015	Parsons	MAY-2013
Corrective Action Plan Monitoring Report, Second Quarter 2012 - First Quarter 2013 Events, Compliance Cleanup Site CCFTBR0017	Parsons	MAY-2013
Corrective Action Plan Monitoring Report, Second Quarter 2012 - First Quarter 2013 Events, Compliance Cleanup Site CCFTBR0013	Parsons	MAY-2013
Corrective Action Plan Monitoring Report, Second Quarter 2012 - First Quarter 2013 Events, Compliance Cleanup Site CCFTBR0022	Parsons	MAY-2013
Corrective Action Plan Monitoring Report, Second Quarter 2012 - First Quarter 2013 Events, Compliance Cleanup Site CCFTBR0037	Parsons	MAY-2013
Long Term Monitoring Report, February 2013 Event, CCFTBR0011 (Site 11)	Parsons	JUN-2013
Soil Assessment Report - Former USTs C-8727A and C-8727B, Compliance Cleanup Site CCFTBR0098	Parsons	JUL-2013
Groundwater Monitoring Letter Report, Former Underground Storage Tank (UST) 1-1242A, Compliance Cleanup Site CCFTBR0072	Parsons	AUG-2013
Notice of Residual Petroleum, Pope AAF Building 322 (CCFTBR0310)	NCDENR	OCT-2013
Notice of Residual Petroleum, Pope AAF Building 334 (CCFTBR0312)	NCDENR	OCT-2013
Notice of Residual Petroleum, AAFES Service Station Building 415 (CCFTBR0313)	NCDENR	OCT-2013
Notice of Residual Petroleum, Pope AAF Building 707 (CCFTBR0314)	NCDENR	OCT-2013
Long-Term Monitoring Report / Work Plan CCFTBR0089 (Site 89, Building J-1303) May and September 2013 Sampling Events	Parsons Infrastructure and Technology Group, Inc.	DEC-2013

2014

Long Term Monitoring Report-Former Aboveground Ground Storage Tank A-2709, Site CCFTBR0038 November 2013 Sampling Event	Parsons Infrastructure and Technology Group, Inc.	FEB-2014
Long-Term Monitoring Report January 2014 Event Site CCFTBR0044	Parsons Infrastructure and Technology Group, Inc.	APR-2014
Final RCRA Facility Investigation (RFI) Report CCFTBR0039 (Site 39) Former Oil Water Separator 2-1251	Parsons Infrastructure and Technology Group, Inc.	APR-2014
Corrective Action Plan Monitoring Report May 2014 Event (CCFTBR0016)	Parsons	JUL-2014
Corrective Action Plan Monitoring Report/Request for Site Closure Second Quarter 2013 - Second Quarter 2014 Events (CFTBR0021 Site 21)	Parsons	AUG-2014

FORT BRAGG
Compliance Restoration
Site Descriptions

Site ID: CCFTBR-H
Site Name: Pope Golf Course Pesticide Site
Alias: AOC-H

STATUS

Regulatory Driver: CERCLA
Contaminants of Concern: Pesticides
Media of Concern: Soil

Phases	Start	End
PA.....	201110.....	201208
SI.....	201110.....	201208
RI/FS.....	201310.....	201608
RIP Date:	N/A	
RC Date:	201708	

SITE DESCRIPTION

The Pope AAF Golf Course was originally constructed in the early-1970s on undeveloped, wooded land. The area continued to be used as a golf course until approximately 2010, prior to the BRAC transfer of the land to the Department of the Army. When the Pope Golf Course was in operation, Building 192 was used as a golf course maintenance shed, which housed and repaired golf carts and stored pesticides used on the golf course. Following closure of the Pope Golf Course, the area south of Building 192 was briefly used as tenant garden plots during 2011.

During preparations for the garden plot development, soil testing was performed. High levels of pesticides were detected in these soils. Between October 2011 and August 2012, additional pesticide testing was performed on the surface and subsurface soil in the area of the former garden plots and around the former golf maintenance shed. Soils were analyzed for RCRA metals and organochlorine pesticides and compared to USEPA Mid-Atlantic Regional Screening Levels (RSLs). Based on these investigations, the pesticides aldrin and dieldrin were detected above the USEPA RSLs near the garden plot area located south of the former golf course maintenance shed. Additionally, these soil pesticide detections exceed both the North Carolina and USEPA SSLs for the protection of groundwater. It is presumed that this site was a result of the wash-out and clean-out of golf course pesticide application equipment and storage containers. It is not anticipated that contamination at the site was the result of routine pesticide application on the golf course or garden plots.

The NCDENR issued a letter in October 2012 recommending additional soil and groundwater testing be completed in the area of the former garden plots.

This site is included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. A ROD/DD (RC) is anticipated by the end of the contract (September 2017). Future work, if necessary, will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Fort Bragg expects to be able to close this site after the indicated investigative action is complete.

Additional soil and groundwater testing will be performed in an RI and FS under a new PBA. An NFA is anticipated for this site.

Site ID: CCFTBR0011
Site Name: HW SITE INVESTIGATION (RFI) OU 6
Alias: OU6

STATUS

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

Phases	Start	End
RFA.....	198802.....	198803
RFI/CMS.....	199703.....	200509
CMI(C).....	200509.....	200612
CMI(O).....	200701.....	201709
RIP Date:	200701	
RC Date:	201709	

SITE DESCRIPTION

This site is located at/near Building F-3040. Historic use at this site includes a construction/demolition landfill (SWMU 16), a waste oil disposal pit (SWMU 86), and a battery neutralization sump (SWMU 88).

OU 6 includes SWMUs 16, 86, and 88. Initial investigation began at SWMU 16 in FY96 and continued in FY97 and FY98 in accordance with the requirements in the Fort Bragg RCRA Part B permit. Additional sampling was required based on regulatory requirements.

The RFI at OU6 was completed in FY01. The results of the RFI recommended NFA for SWMU 16 and further investigation for SWMUs 86 and 88. Elevated levels of contaminants (VOCs and SVOCs) were noted in samples, which required further investigation. The primary media of concern is groundwater, and contamination consists primarily of petroleum compounds. The potential for off-site migration is relatively low, limited to the direction and rate of natural groundwater flow. The site has been investigated since 1996. SWMU 16 received an NFA decision from NC in April 2003, but SWMUs 86 and 88 remain under a management program.

Groundwater sampling, which began in FY03, was initially conducted every nine months. The March 2006 Decision Document established LTM at SWMUs 86 and 88, with a sampling interval of every two years, for five sampling events. New terminology uses monitored natural attenuation (MNA) in lieu of LTM. MNA and ICs were chosen as the selected remedies in the DD for the site. The DD was revised in December 2014 as follows: Five wells are monitored once every five years for VOCs with the next monitoring event being in 2018. Sampling is conducted with passive diffusion bag samplers and the five wells are gauged each monitoring event.

Current contamination is very low (PCE in the 0.88-1.72 micrograms per liter [ug/L] range), but still exceeding state groundwater standards.

This site is included in a PBA contract with Parsons awarded in FY10, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY10 contract; site costs for FY15 through FY17 are paid by the FY12 contract. Site closure by Sept. 30, 2017 is required by the CV02 contract.

In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into one building overlying the known contamination plume at CCFTBR0011. The VI study for 13 sites at Fort Bragg will be included in a PBA 4 contract through USAEC and the MICC, with a POP from FY14 through FY17. All sites costs will be tracked through the open RI phase for CCFTBR0074 in AEDB-R.

Site ID: CCFTBR0011

Site Name: HW SITE INVESTIGATION (RFI) OU 6

Alias: OU6

CLEANUP/EXIT STRATEGY

Site closure is required at this site by the PBA contract on or before Sept. 30, 2017. Fort Bragg expects to be able to close this site when groundwater contaminant levels are below NC 2L. The site is expected to close with an NFA.

Site ID: CCFTBR0013

Site Name: UST REMEDIATION, CSA POL Point #1

Alias: POL Point1

STATUS

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

Phases	Start	End
ISC.....	200301.....	200310
INV.....	200310.....	200808
CAP.....	201010.....	201109
IRA.....	200710.....	201109
IMP(C).....	201110.....	201307
IMP(O).....	201308.....	201709
RIP Date:	201308	
RC Date:	201709	

SITE DESCRIPTION

POL Point 1 (and former associated Building 2-4040) is a former central fuel dispensing site for the Fort Bragg installation. At least 13 USTs, ranging in size from 5,000 gallons to 20,000 gallons, were removed from the site in 1997. Fuel was suspected to be stored in these tanks, downloaded from fuel tankers from a nearby railroad track. No prior environmental history on the site is known.

The site is under consideration for further development of a nearby military communications unit, but plans for development have been slowed because of existing contamination at this site.

The closure reports for the 13 removed USTs indicated releases to the soil and groundwater at the site. A Phase I LSA was conducted in 1998 and 1999 to determine the amount and type of contamination in the soil, and it was followed by a Phase II LSA in 2000 and 2001. The Phase II LSA indicated free-product in one of the monitoring wells, and a groundwater plume containing benzene, ethylbenzene, and total xylene.

A CSA report was developed in 2003, and further delineated the plume and soil contamination. Those constituents exceeding the state groundwater standards (15A NCAC 2L) include benzene, ethylbenzene, and naphthalene. As a result of the CSA, a Supplemental CSA was completed in 2007; it included membrane interface probe (MIP) sampling in addition to free-product removal.

The most recent document is the CAP (2008) for the free-product. The CAP for the free-product recommends active free-product removal at this site (previous efforts were utilizing passive bailers) with three new free-product removal wells. Removal will occur via a vacuum truck on a quarterly basis. In addition, soil excavation was completed to remove the source at the location of the former UST pit.

This site is included in a PBA contract with Parsons awarded in FY10, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY10 contract; site costs for FY15 through FY17 are paid by the FY12 contract. RC by Sept. 30, 2017, is required by the CV02 contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site.

CLEANUP/EXIT STRATEGY

Once free-product removal efforts are complete, Fort Bragg expects to be able to close this site when groundwater contaminate levels are below NC 2L. The site is expected to close with an NFA.

Site ID: CCFTBR0015

Site Name: UST REMEDIATION, PHASE II BLDG 6-9344

Alias: BLD 6-9344

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	200201.....	200211
INV.....	200403.....	200809
CAP.....	201010.....	201109
IRA.....	200309.....	201109
IMP(C).....	201209.....	201307
IMP(O).....	201308.....	201709

RIP Date: 201308

RC Date: 201709

SITE DESCRIPTION

This site is located at Building (Bldg) 6-9344, the former Mallonee Village Commissary; the seven tanks were removed in 1993. The tanks provided fuel for boilers in the building. The CS done during removal indicated that soil levels of petroleum hydrocarbons exceeded state standards requiring further assessment.

The USACE-Savannah District completed a CSA in 2007 that was submitted to the state. During this time, passive free-product removal (with a bailer) was occurring due to a low recharge rate in the one free-product well.

Further investigative actions using an MIP were completed in February 2008, and indicate that additional free-product wells may be helpful to more aggressively remove the product from this site. Based on the MIP sampling, a draft work plan for free-product removal was developed (in August 2008).

The work plan recommended the installation of three free-product recovery wells with a large (4-inch) diameter and to a depth of 35 feet, and those wells have been installed. A CAP was performed in 2011. As directed by the CAP, groundwater and free-product will be removed via a vacuum truck from these wells on a quarterly basis.

This site is included in a PBA contract with Parsons awarded in FY10, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY10 contract; site costs for FY15 through FY17 are paid by the FY12 contract. RC by Sept. 30, 2017 is required by the CV02 contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site.

CLEANUP/EXIT STRATEGY

This site is included in the PBA3 contract, and future work is being completed as part of that contract. Current work includes free-product removal. Further action can occur only after all product is removed from the ground.

Site ID: CCFTBR0016

Site Name: UST REMEDIATION, PHASE II 8-3004 POL #2

Alias: POL Point2

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200201.....	200211
INV.....	200310.....	200809
CAP.....	200810.....	200909
IMP(C).....	200910.....	201307
IMP(O).....	201308.....	201709

RIP Date: 201308

RC Date: 201709

SITE DESCRIPTION

This site is located at Bldg 8-3004, which was associated with a fuel farm containing 11 tanks. As a result of BRAC 2005, this is the proposed site for US Army Forces Command Headquarters (FORSCOM HQ). The tanks were removed in 1994 and site closure reports indicated that additional investigation was required.

The Phase I and Phase II LSAs were completed in 1999 and 2000, respectively. The reports confirmed releases to soil and groundwater above the NCDENR standards. A CSA and a CAP were funded in FY08. No free-product was detected, but petroleum constituents (benzene, ethylbenzene, toluene, xylene, etc.) have been detected at more than 10 times the state groundwater standards (NC 2L).

The CSA revealed that the site is not yet fully delineated; contamination extends further west than was originally anticipated, and it generally follows the direction of groundwater flow. The decision was made to use funding earmarked for the CAP to do some additional delineation before beginning development of the CAP--since the site was not yet fully characterized. The additional delineation work included 20 sampling locations (MIP points) as well as three additional monitoring well installations. The resulting data indicate a rather concentrated area of contamination near monitoring well 8-3004-MW, although free-product has still not yet been detected.

In addition, the FORSCOM HQ construction project requested removal of a number of monitoring wells. The NCDENR concurred with the removal of six monitoring wells (MW-7, MW-12, MW-14, MW-15, MW-16, and MW-17), leaving a total of 11 in place.

An in situ bioremediation injection with RegnOx and Oxygem Release Compound Advanced was performed at the site in 2010. Although there were initial good results, one well still shows hits of benzene at levels above its GCL. This site will be monitored every six months to see if the levels will gradually decline so that closure with an NRP would be possible. At this time, Fort Bragg anticipates closing this site with NFA with an NRP after a few more years of sampling.

This site is included in a PBA contract with Parsons awarded in FY12, with POP through FY17. RC by Sept. 30, 2017, is required by the contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site.

CLEANUP/EXIT STRATEGY

Sampling will continue at this site until groundwater contaminate levels are below NC 2L. The site is expected to close with an NRP with LUCs. Any continuing LUCs will be maintained as prescribed.

Site ID: CCFTBR0017

Site Name: UST REMEDIATION, PHASE II BLDG 8-5476

Alias: BLD 8-5476

STATUS

Regulatory Driver: RCRA
 Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)
 Media of Concern: Groundwater

Phases	Start	End
ISC.....	200201.....	200211
INV.....	200401.....	200809
CAP.....	200810.....	200909
IRA.....	200304.....	200909
IMP(C).....	201110.....	201307
IMP(O).....	201308.....	201709
RIP Date:	201308	
RC Date:	201709	

SITE DESCRIPTION

This site is located at Bldg 8-5476, an active Army and Air Force Exchange Service (AAFES) Commissary. The two tanks (A and B, 10,000- and 270-gallon diesel tanks, respectively) provided heat and hot water to the building. Free-product of diesel was identified in groundwater. Free-product removal (AFVR) is underway.

Soil samples were collected during the initial UST removal action, and indicated that GROs and DROs exceed the state soil screening levels. Soil samples taken during the Phase I LSA indicated that naphthalene and C10-C22 aromatics exceeded the soil-to-groundwater maximum soil constituent contamination (MSCC) levels at 15 feet below grade. No soil samples were taken during the Phase II LSA or during the CSA.

Groundwater samples taken during the Phase I LSA indicated that benzene and C9-C22 aromatics exceeded the state groundwater quality standard (15A NCAC 2L) by 10 times. Ethylbenzene and xylene also exceed the 2L standard, but not by 10 times. Chloroform was found in one well during the sampling for the Phase II LSA, but some wells could not be sampled due to the presence of free-product in the wells. Three additional wells (for a total of nine) were installed during the CSA, and a number of constituents (previously listed) exceeded their NC 2L standards by more than 10 times.

Free-product is still present in the area, and the groundwater contamination lies primarily in the shallow and perched zones. The deeper (regional) water table is free of regulatory contamination (constituents exceeding levels allowable by NC 2L). Free-product recovery is conducted on a quarterly basis using a vacuum truck until free-product thickness is reduced to 0.1 feet or less at the site.

This site is included in a PBA contract with Parsons awarded in FY10, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY10 contract; site costs for FY15 through FY17 are paid by the FY12 contract. RC by Sept. 30, 2017 is required by the contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site.

CLEANUP/EXIT STRATEGY

This site is included in the PBA3 contract, and future work is being completed as part of that contract. Current work includes free-product removal. Further action can occur only after all product is removed from the ground.

Site ID: CCFTBR0019

Site Name: UST REMEDIATION, PHASE II @ A-3686 AAFES

Alias: BLD A-3686

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200201.....	200211
INV.....	200401.....	200910
CAP.....	200810.....	200910
IMP(C).....	200911.....	201107
LTM.....	201107.....	204502

RIP Date: N/A

RC Date: 201107

SITE DESCRIPTION

Contamination was discovered during a UST removal/upgrade project in 1997. Thirteen USTs were removed and replaced with four compliant USTs. This site is located at Building A-3686, AAFES Shoppette. In 1997, 13 tanks were removed. Closure reports indicated releases to soil.

Phase I LSA was completed in 2000 and the Phase II LSA was completed in 2004. The reports indicated that both soil and groundwater were impacted with gasoline by-products and methyl tert-butyl ether (MTBE).

The site was closed with an NRP, by an NFA letter dated July 28, 2011.

This site is included in a PBA contract with Parsons awarded in FY12 with a POP through FY17. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0021

Site Name: UST REMEDIATION, PHASE II BLDG C-3515

Alias: BLD C-3515

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200201.....	200211
INV.....	200401.....	200809
CAP.....	200810.....	200910
IRA.....	200203.....	200910
IMP(C).....	200911.....	201010
IMP(O).....	201109.....	201412
LTM.....	201412.....	204512

RIP Date: 201109

RC Date: 201412

SITE DESCRIPTION

This site is located at Building C-3515, a division artillery motor pool. Two USTs there provided gasoline and diesel fuels to military vehicles, and a third provided storage for used oil (from a series of grease racks). The closure activities for C-3515-A (the 4,000-gallon used oil tank) were completed in July 1998. The land use in the area was and still is primarily industrial.

A Phase I and Phase II LSA were completed and submitted to the NCDENR; the Phase I in 2000 and the Phase II in 2003. Both reports identify soil and groundwater contamination, as well as free-product in the wells. Benzene, ethylbenzene, naphthalene, toluene, C5-C8 aliphatics, and C9-C10 aromatics are the primary constituents of concern.

Two intermediate risk factors apply at this site. The first, free-product was detected. Secondly, both benzene and naphthalene exceed their respective human health standards by a factor of 10 times or more. Criteria for aquatic receptors do not apply at this site.

Because free-product exists at the site, a large diameter (4-inch) free-product extraction well for aggressive free-product removal was installed. Free-product continues to be recovered on a quarterly basis as directed in the CAP (2011). Between 3rd quarter 2013 and 2nd quarter 2014, no free-product was observed in the on-site monitoring wells. Following review of the August 2014 CAP Monitoring Report, NCDENR issued an NORR for an NRP to be filed. An NRP will be completed under the below contract.

The site was closed with an NRP, by an NFA letter dated Dec. 19, 2014.

This site is included in a PBA contract with Parsons awarded in FY10, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY10 contract; site costs for FY15 through FY17 are paid by the FY12 contract. RC by Sept. 30, 2017 is required by the contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0024

Site Name: UST REMEDIATION, PHASE II BLDG D-2340-A

Alias: BLD D-2340

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200201.....	200211
INV.....	200310.....	200809
CAP.....	200810.....	200909
IMP(C).....	200906.....	201107
LTM.....	201107.....	204502

RIP Date: N/A

RC Date: 201107

SITE DESCRIPTION

This site is located at building D-2340. The 1,000 gallon UST was a used oil UST, connected to the drains of two grease racks. The tank was removed in March 1998.

A Phase I LSA was completed at this site in 2000. A single monitoring well was installed; soil from that boring was sampled and benzene, C5-C8 aliphatics, C9-C10 aromatics, and 1,2-dichlorobenzene were found at concentrations exceeding the NC state action levels. In addition, benzene, C5-C8 aliphatics, C9-C22 aromatics, and naphthalene were found in the groundwater sample.

A Phase II LSA report was submitted in 2003. During the Phase II fieldwork, four monitoring wells were installed. Soil samples were not taken in the monitoring well borings. Only chloroform was found in the samples, exceeding the NC 2L groundwater standard.

Following Phase II, a CSA was completed in 2008. An additional two monitoring wells were installed downgradient of the site. Again, no soil samples were analyzed from the soil boring cores. Only tetrachloroethene was found to be above the NC 2L standards, and only at estimated values (J-flagged).

The site received an NFA on July 28, 2011, via an NRP.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0027

Site Name: UST REMEDIATION, PHASE II BLDG M-2125

Alias: BLD M-2125

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	200201.....	200304
INV.....	200403.....	200809
CAP.....	200810.....	200909
IMP(C).....	200910.....	200910
IMP(O).....	200910.....	201107
LTM.....	201107.....	204502

RIP Date: 200910

RC Date: 201107

SITE DESCRIPTION

This site is located at Building M-2125, a former motor pool. Two, 5,000-gallon tanks with unknown contents were removed in 1992. Site closure reports indicated releases of petroleum hydrocarbons to soil. Levels exceeded NC 2L standards.

The Phase I LSA report was developed in 2000 by Environmental Enterprise Group and it included the installation of a single monitoring well. Four soil samples were taken from the monitoring well soil cuttings at five-foot intervals beginning at five feet below grade. The sampling data indicate that numerous constituents exceeded their North Carolina soil-to-groundwater MSCC criteria. In general, the concentrations were highest in the 5- and 10-foot samples. The groundwater data for the Phase I investigation show that C5-C8 aliphatics, benzene, ethylbenzene, naphthalene, and MTBE were all found, and were all detected at 10 times above their respective NC 2L groundwater standard, indicating that a Phase II LSA investigation was required.

That Phase II LSA was completed in 2003, by the USACE. Four additional soil borings were advanced, and were sampled in the 8- to 15-foot range below grade. Numerous BTEX-type constituents and aromatics exceeded their respective soil-to-groundwater MSCC. Three additional groundwater monitoring wells were installed during the Phase II investigation. The following constituents were detected at levels above their respective NC 2L groundwater standard: benzene, ethylbenzene, naphthalene, toluene, and xylene.

A CSA was required by the NCDENR and was completed in FY09. The data indicate that site closure with an NRP for groundwater is the optimal path forward.

This site received an NFA on July 28, 2011, via an NRP.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain the soil and groundwater LUCs contained in the NRP and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0037

Site Name: UST Remediation - SAAF Hydrant System

Alias: SAAF Hydrt

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200405.....	200407
INV.....	200407.....	200709
CAP.....	200710.....	201203
IRA.....	200906.....	201203
IMP(C).....	201204.....	201303
IMP(O).....	201304.....	201709

RIP Date: 201304

RC Date: 201709

SITE DESCRIPTION

This site was a former airport hydrant system (AHS) for Simmons Army Airfield (SAAF), Building P-6718, Tanks A, B, C, D, and E. The AHS is a fueling system for aircraft. Site was closed and AHS was removed in 2004 when the new contractor owned/contractor operated (COCO) aboveground site was built.

The CS done at closure indicates soil and groundwater contamination of petroleum (JP-8) exceeds NC standards. Approximately 345 linear feet of underground piping and five 48,000-gallon USTs associated with the hydrant system were removed in 2005. In addition, two 5,000-gallon USTs [Tanks F (motor gasoline (MOGAS) and G (diesel))] were removed in 1998. These two tanks were associated with a gasoline station directly adjacent to the hydrant system USTs.

The NCDENR reviewed the closure report and requested a priority site cleanup at this site. The hydrant system is approximately two miles from the installation boundary and 2.5 miles from a public drinking water source for the city of Fayetteville. Free-product was documented on the groundwater. The plume appears to be static.

The CSA and supplemental CSA reports were developed to examine the surrounding area adjacent to the property boundary and public water source. Most of the wells associated with this site have been abandoned because of the NC Department of Transportation (DOT) I-295 project. Free-product removal is conducted on a quarterly basis as directed by the CAP (2011).

This site is included in a PBA contract with Parsons awarded in FY10, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY10 contract; site costs for FY15 through FY17 are paid by the FY12 contract. RC by Sept. 30, 2017 is required by the contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site.

CLEANUP/EXIT STRATEGY

This site is included in the CC PBA contract, and future work is being completed as part of that contract. Current work includes free-product removal on a periodic basis, as directed by the CAP. Further action can occur only after all product is removed from the ground.

Site ID: CCFTBR0038

Site Name: RCRA Investigation - AST BLDG A-2709

Alias: BLD A-2709

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
RFA.....	198801.....	198809
RFI/CMS.....	200009.....	200809
CMI(C).....	200810.....	200909
CMI(O).....	200910.....	201202
LTM.....	201203.....	204502

RIP Date: 200910

RC Date: 201202

SITE DESCRIPTION

The A-2709 site served as the 82nd Division Support Command fuel point for gasoline and diesel military vehicles. The two 25,000-gallon ASTs were removed in May 1997, as well as the fueling dispensers, pumps, and islands.

The final closure report was submitted by Earth Tech in 1997 and documents the removal of the two 25,000-gallon ASTs, the fueling equipment, the islands, and the piping. Although the final closure report does indicate that the piping was removed, a recent construction project in the area uncovered a large (8- to 10-inch diameter) pipe assumed to be part of this former fueling system. During the removal, approximately 1,000 cy of soil was reportedly removed from the site before the effort was ceased. CS indicates that total petroleum hydrocarbons (TPH) existed in the soil at levels of almost 12,000 parts per million (ppm), which far exceeds the allowable limits.

The Phase I LSA was conducted by the Environmental Enterprise Group, the report was submitted in 2000, and recommended that further investigation be conducted.

The CSA report was submitted in 2004 by the USACE. Again, a variety of constituents were detected in the soil, including aliphatic and aromatic hydrocarbons, naphthalene, benzene, ethylbenzene, toluene, xylene, etc. In the groundwater, PCE, aromatics, ethylbenzene, benzene, and chloroform were all detected above their respective allowable levels. Recommendations included additional soil sampling in the vicinity of MW-3 and two additional monitoring wells upgradient to provide background data. The CSA recommended groundwater samples be collected from the existing monitoring wells on an annual basis for two years to establish an historical trend of contamination. The February 2014 sampling report noted exceedances of VOCs and SVOC above NC 2L standards. Recommendations were made to continue groundwater monitoring on a biennial basis.

This site is included in a PBA contract with Parsons awarded in FY10, with a POP through FY14. It is also included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY10 contract; site costs for FY15 through FY17 are paid by the FY12 contract. Post-contract costs are estimated based on appropriate CLINs from the FY12 contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Sampling will continue two years. Fort Bragg expects to be able to close this site when groundwater contaminate levels are below NC 2L. The site is expected to close with an NFA.

Site ID: CCFTBR0039

Site Name: HW Investigation - OWS BLDG 2-1251

Alias: BLD 2-1251

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater, Soil

Phases	Start	End
RFA.....	198801.....	198809
RFI/CMS.....	200810.....	201510
CMI(C).....	201409.....	201709
CMI(O).....	201710.....	204502

RIP Date: 201710

RC Date: 204502

SITE DESCRIPTION

This site was formerly an OWS and a washrack for an artillery unit at Building 2-1251. The building was demolished in 2004. The OWS and washrack were removed in April 2005.

A closure report for this OWS removal was submitted in 2005. The report indicated soil constituents exceed NC soil-to-groundwater levels for VOCs and SVOCs. The team had initially agreed that a single direct-push technology (DPT) groundwater sample would be taken to assess any impacts to the aquifer. The sample was taken, and a full RFI was required by the NCDENR. A draft RFI report was completed in May 2013. Nine monitoring wells were installed to support the RFI. TCE was found in five of the wells at concentrations from 6.15 ug/L - 132 ug/L. PCE was found in six of the wells at 1.38 ug/L - 28.8 ug/L. A CMS will be completed under the CV02 contract listed below.

Discussions between Fort Bragg and NCDENR concluded that groundwater plumes at sites CCFTBR0039 and CCFTBR0072 were commingled. Due to the combination of plumes and close proximity of the former tank locations, it is believed that chlorinated solvents in CCFTBR0072 originated from tanks investigated under CCFTBR0039. It was decided that CCFTBR0072 should be closed with an NFA for the petroleum portion, and the chlorinated solvents addressed under CCFTBR0039. NCDENR issued a letter in July 2013 administratively closing CCFTBR0072 and combining future remedial investigations under CCFTBR0039.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site costs through FY14 are paid by the FY10 contract; site costs for FY15 through FY17 are paid by the FY12 contract. RIP or CMI(C) by Sept. 30, 2017 is required by the contract. Post-contract costs are estimated based on appropriate CLINs from the FY12 contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future CMI(O) work will be performed under a PBA5 contract, to be awarded in FY18.

In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into four buildings within 100 feet of the known contamination plume at CCFTBR0039. The VI study for 13 sites at Fort Bragg will be included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. All sites costs will be tracked through the open RI phase for CCFTBR0074 in AEDB-R.

CLEANUP/EXIT STRATEGY

The current PBA contractor for PBA3 will complete a CMS by FY17, which will initiate a remedy. The remedy is anticipated to be long-term monitoring. It is expected that long-term monitoring (CMI(O)) will continue at this site post-contract.

Site ID: CCFTBR0043
Site Name: UST Remediation, D-1402
Alias: BLD D-1402

STATUS

Regulatory Driver: RCRA
 Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)
 Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	199210.....	199309
INV.....	200510.....	200809
CAP.....	200810.....	200910
IMP(C).....	200910.....	201107
LTM.....	201107.....	204502
RIP Date:	N/A	
RC Date:	201107	

SITE DESCRIPTION

This site contained five USTs that served the AAFES gasoline service station and auto care center (still located at the site). Those five USTs are D-1402-A (10,000-gallon gasoline UST), D-1402-B (10,000-gallon gasoline UST), D-1402-C (6,000-gallon gasoline UST), D-1402-D (10,000-gallon UST), and D-1402-J (1,000-gallon heating oil UST). USTs A through D were co-located in the same tank pit; UST J was located in a separate pit, but still 25-50 feet from the others. This site was (and still is) used as an AAFES gasoline service station and auto care center; the current land use is expected to remain for the foreseeable future.

This CC project number was opened during the spring 2008 data call.

The tanks were removed in 1993, and were inactive when removed. No piping was found in the excavation pits. In addition, no groundwater or free-product was encountered during the removal. Contaminated soil at the site prompted a Phase I LSA, which was performed in the spring of 2005. Subsequently, a Phase II LSA was required, performed in the summer of 2007.

This site received an NFA decision by the NCDENR on July 28, 2011, and was closed via an NRP. LUCs are in place at this site. This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain the soil and groundwater LUCs contained in the NRP and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0044
Site Name: AST Remediation Fluoride Spill
Alias: WWTP Fluor

STATUS

Regulatory Driver: RCRA
 Contaminants of Concern: Other (Fluoride, pH)
 Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	200710.....	200809
INV.....	200710.....	200809
CAP.....	200710.....	200809
DES.....	200710.....	200809
IMP(C).....	200808.....	200809
IMP(O).....	200910.....	201709
RIP Date:	200910	
RC Date:	201709	

SITE DESCRIPTION

A leak in the fluorosilicic acid tank was discovered in 2007 and was immediately repaired; however, an inventory reconciliation was performed, and it is estimated that approximately 7,000 gallons of a 22.8 percent solution of fluorosilicic acid had been released from the tank. Since the release, the fluorosilicic acid tank was dismantled and removed, and the fluoridation of the drinking water is occurring with a different process. An initial site assessment was performed by Terracon, which advanced eight soil borings to evaluate soil quality. Based on the findings of the soil assessment, Terracon returned to the site to install two temporary monitoring wells. The fieldwork was done under the direction of Arcadis, which has developed the site investigation and RA evaluation report.

This CC project number was opened during the fall 2008 data call.

In 2010, groundwater injection events were conducted at the site. Injections included: sodium hydroxide (first injection), followed by calcium chloride (second injection), a partial injection of sodium hydroxide, and the last injection was a combination of sodium hydroxide and calcium chloride. Additionally, three soil infiltration events were also conducted. Event 1 used sodium hydroxide only, and Events 2 and 3 used a combination of sodium hydroxide and calcium chloride. The events were effective at increasing the calcium and pH levels in the groundwater to aid in fluoride precipitation.

Both soil and groundwater in the vicinity of the fluorosilicic acid tank required immediate remediation. The plume extends downgradient of the former tank location about 200 to 300 feet.

Contaminants of concern include the fluoride and the pH of the soil and the groundwater. During the January/February 2014 sampling event, fluoride concentrations in six wells, were between 2.92 and 46.9 mg/L and the pH ranged from 4 to 5. Both are in exceedance of the NC 2L groundwater standards. The potential for migration is limited, but the Little River is immediately downgradient of the plume and of the site.

By the 2014 sampling event, fluoride levels were decreased to the point that the site has now transitioned into long-term monitoring as MNA. Groundwater and storm water sampling will be conducted annually.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Site closure by Sept. 30, 2017 is required by the contract.

CLEANUP/EXIT STRATEGY

The LSA data indicate that site closure with an NRP for groundwater is the optimal path forward. When groundwater contaminant levels reach below NC 2L, an NRP will be requested with LUCs. Any continuing LUCs will be maintained as prescribed. This site is included in the PBA3 contract and RC is required by Sept. 30, 2017.

Site ID: CCFTBR0046
Site Name: UST Investigation, 2-1549
Alias: BLD 2-1549

STATUS

Regulatory Driver: RCRA
Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)
Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	200710.....	200809
INV.....	201003.....	201303
LTM.....	201303.....	204502
RIP Date:	N/A	
RC Date:	201303	

SITE DESCRIPTION

Building 2-1549 is a parachute packing warehouse in the historic district of Fort Bragg. Surrounding land use is mixed industrial/residential, with some single family homes [Department of Defense (DoD) housing] about 200 feet north of the site. The 6,000-gallon heating oil UST was closed in place and filled with foam in April 2008. CS during site closure included six soil samples taken in the vicinity of the UST. In general, C9-C22 aromatics, C9-C18 aliphatics, benzene constituents, naphthalene, and xylene were found at levels above the NC state soil standards. Sample depths were from two to six feet below grade.

An LSA and a soil assessment report (SAR) were completed in 2010. The investigation identified C9-C18 aliphatics and C9-C22 aromatics at levels above their respective soil-to-groundwater MSCCs and residential MSCCs. Benzene, 2- methyl naphthalene, naphthalene, C9-C18 aliphatics, and C9-C22 aromatics were detected in groundwater at concentrations exceeding their respective NC 2L standards.

Soil removal was initially considered, but due to the nature of the contamination (likely extending under the building) and extensive utilities in the area, it was believed that the effort to remove all the contaminated soil would not be successful; an NRP for soil would be required, whether or not the soil was removed, so it was decided to not remove soil and only file the NRP. An NRP for groundwater is also required. Both NRP documents were completed on March 27, 2013.

This site is included in a PBA contract with Parsons awarded in FY10 (W91ZLK-05-D-0016, delivery order 0004), with a POP through FY14. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain the soil and groundwater LUCs contained in the NRP and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0048
Site Name: UST Investigation, 2-3627-A/B
Alias: BLD 2-3627

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	199810.....	199909
INV.....	200710.....	200909
IMP(C).....	200910.....	201107
LTM.....	201107.....	204502

RIP Date: N/A

RC Date: 201107

SITE DESCRIPTION

Two, 15,000-gallon USTs were removed from Fort Bragg's transportation motor pool (TMP) by Applied Ecosystems in 1998. The USTs contained gasoline (MOGAS) for use in garrison vehicles. A Phase I LSA was completed in 2008 by Bhate Environmental Associates for these two tanks. During the LSA, five soil borings were advanced at the site, and a total of 12 soil samples were analyzed for VOCs, volatile petroleum hydrocarbons (VPHs), and extractable petroleum hydrocarbons (EPHs). Soil boring 2-3627-AB-MW01 was converted into a permanent monitoring well, and one sample was analyzed for VOCs, VPHs, and EPHs. None of the soil samples were found to exceed the state soil standards. The groundwater sample, however, exhibited a few constituents exceeding the groundwater standard. Each primary constituent is listed with its measured concentration versus the state NC 2L groundwater standard (units are ug/L): benzene (204 vs. 1), ethylbenzene (1,780 vs. 550), naphthalene (646 vs. 21), toluene (5,420 vs 1,000), total xylene (>12,000 vs. 530), C5-C8 aliphatics (10,100 vs. 420), C9-C10 aromatics (11,300 vs. 210), and C9-C12 aliphatics (22,000 vs. 4,200).

A CSA was completed in 2009 by Bhate. Additional wells were installed which identified additional groundwater contamination. The CSA recommended additional delineation, but Fort Bragg chose instead to close the site with an NRP for groundwater.

This site received an NFA decision from the NCDENR on July 28, 2011, via a NRP for groundwater. LUCs are now in place and are documented in the BMP. This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0067
Site Name: UST Monitoring, C-9224
Alias: BLD C-9224

STATUS

Regulatory Driver: RCRA
Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)
Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	200610.....	200709
INV.....	200710.....	200909
IMP(C).....	201003.....	201212
LTM.....	201212.....	204502

RIP Date: N/A
RC Date: 201212

SITE DESCRIPTION

Building C-9224 was a fueling station pump house in a motor pool complex off Yorktown Victor Road on Fort Bragg. Surrounding land use is primarily industrial. The two 25,000-gallon USTs contained JP-8 and were removed in October 1998 by the environmental detachment in Charleston, SC. This CC project number was opened during the spring 2009 data call.

The CS during site closure included nine soil samples taken in the vicinity of the UST. TPHs for DROs were found at levels above the NC state soil standards. Sample depths were at 15 feet below grade (plus one from the soil stockpile).

A Phase I LSA Report was developed by the USACE in 2005. The Massachusetts Department of Environmental Protection (MADEP) aromatics and some polycyclic aromatic hydrocarbons (PAHs) exceeded residential levels.

This site was closed with an NRP for groundwater and for soil; the date of the NFA letter is Dec. 10, 2012.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain the soil and groundwater LUCs contained in the NRP and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0068
Site Name: UST Investigation, D-1926-A
Alias: BLD D-1926

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200710.....	200809
INV.....	200810.....	201107
LTM.....	201107.....	204502

RIP Date: N/A

RC Date: 201107

SITE DESCRIPTION

Building D-1926 is part of a motor pool complex at Fort Bragg. Surrounding land use is primarily industrial. The 2,000-gallon heating oil UST was removed in 2005. An LSA has been completed, and the data indicate that site closure with an NRP for groundwater is the optimal path forward.

This site received an NFA decision from the NCDENR on July 28, 2011, via an NRP. LUCs are now in place and are documented in the BMP.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. Periodic reviews will be captured in the FTBR-103 AEDB-R site.

Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0074

Site Name: Cook Street Warehouse Complex

Alias: Cook Wrhse

STATUS

Regulatory Driver: RCRA

Contaminants of Concern: Volatiles (VOC)

Media of Concern: Groundwater

Phases	Start	End
RFA.....	200812.....	200812
CS.....	200901.....	200909
RFI/CMS.....	200910.....	201402
CMI(C).....	201407.....	201510
CMI(O).....	201510.....	204507

RIP Date: 201510

RC Date: 204507

SITE DESCRIPTION

Historically PCE has been detected at SWMU 14 at concentrations exceeding the NC 2L groundwater standard of 0.7 ug/L. Long-term groundwater monitoring at SWMU 14 has established that the wells with the greatest PCE concentrations are located upgradient of SWMU 14. For instance, a concentration of 279 ug/L was measured in 14MW2 during the February 2009 monitoring event at SWMU 14. Monitoring well 14MW2 is the most upgradient well at SWMU 14, and the closest well to the Cook Street warehouse complex. In addition, the 2003 DD for SWMU 14 states that the source of PCE is not believed to be SWMU 14, as wastes contained within SWMU 14 were reported as general construction debris. Based on these data, an SI was conducted to isolate a potential source(s) of PCE located upgradient of SWMU 14. The SI fieldwork was completed in September and October 2009, and the letter report is dated December 2009. Additionally, this AEDB-R site was opened to track the investigation at this new site upgradient of SWMU 14.

Activities supporting an RFI were completed between June 2010 and July 2011. The site conceptual model (SCM) for this site indicates that the nature of contamination is a PCE release with the highest concentrations (326 ug/L) currently located adjacent to the northeast side of Building J-2844 in the Cook Street warehouse complex. Additionally, the RFI recommended that a CMS be prepared to address the PCE contamination in groundwater at this site. The CMS determined in February 2014 that the best course of action was LUCs, MNA, and contingency surface water treatment by aeration if PCE is detected in surface water in the future.

A CMI(P) was approved in July 2014 and determined that MNA will consist of the sampling of 10 monitoring wells and three surface water sampling points for VOCs annually. LUCs consist of administrative controls and groundwater-use restrictions which will be incorporated into the Installation Master Plan.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. RIP or CMI(C) by Sept. 30, 2017 is required by the contract. At that time, this site will be administratively closed, and combined with FTBR-014 as Cell C. Post-contract costs are estimated based on appropriate CLINs from this contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site.

In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into two buildings overlying the known contamination plume and four buildings within 100 feet of the plume at CCFTBR0074. The VI study for 13 sites at Fort Bragg will be included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. All site costs will be tracked through the open RI phase for this site (CCFTBR0074) in AEDB-R. The VI study sites include: CCFTBR0011, CCFTBR0039, CCFTBR0074, CCFTBR0089, FTBR-001, FTBR-004, FTBR-014, FTBR-069, FTBR-103, FTBR-301, FTBR-303, FTBR-304, and FTBR-305.

Site ID: CCFTBR0074

Site Name: Cook Street Warehouse Complex

Alias: Cook Wrhse

CLEANUP/EXIT STRATEGY

A CMI(P) was approved in July 2014 and determined that MNA will consist of sampling 10 monitoring wells and three surface water sampling points for VOCs annually. LUCs consist of administrative controls and groundwater-use restrictions. RIP or CMI(C) by Sept. 30, 2017 is required by the current contract. At that time, the site will be administratively closed, and combined with FTBR-014 as Cell C.

Site ID: CCFTBR0080
Site Name: UST Investigation, 4-3124-A
Alias: BLD 4-3124

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	199710.....	199809
INV.....	201010.....	201210
LTM.....	201305.....	204502

RIP Date: N/A

RC Date: 201305

SITE DESCRIPTION

Building 4-3124 was part of a former heating plant at Fort Bragg, but was demolished around 2002. Surrounding land use is mixed use, with Womack Army Medical Center directly to the north and Albritton Junior High School directly to the south.

The 280-gallon heating oil UST was removed in 1998 by the Environmental Detachment in Charleston, SC. Although the tank was small, it was a regulated tank used to fuel a generator. Fuel odors were detected during the UST removal, and petroleum constituents were found during the CS, necessitating need for further investigation.

A Phase I LSA report was completed by the Savannah District, USACE, in 2011. The soil analysis identified several VOC, SVOC, and MADEP VPH/EPH compounds above laboratory reporting levels. No detected compounds were present at concentrations exceeding NC MSCC Levels. The groundwater analysis identified several VOC, SVOC, and MADEP VPH/EPH compounds. Analytes that were detected above NC 2L standards were benzene (13 ug/L, vs. 1 ug/L NC 2L), chloromethane (21 ug/L, vs. 3 ug/L NC 2L), and naphthalene (180 ug/L, vs. 6 ug/L NC 2L) from the VOCs analysis and naphthalene (130 ug/L, vs. 6 ug/L NC 2L) from the SVOCs analysis. All other detections in the temporary well were below NC regulatory standards. Free-product has not been detected at this site.

The recommendations are that the site be characterized as low risk. Neither soil nor groundwater remediation is proposed at this time. Fort Bragg will pursue closure of this site with an NRP. An NORR was issued by the NCDENR on May 1, 2012. This site received an NFA decision from the NCDENR on May 14, 2013, via an NRP. LUCs are now in place and are documented in the Installation Master Plan.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. RC by Sept. 30, 2014 is required by the contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0089
Site Name: UST Investigation, J-1303
Alias: BLD J-1303

STATUS

Regulatory Driver: RCRA
Contaminants of Concern: Volatiles (VOC)
Media of Concern: Groundwater

Phases	Start	End
RFA.....	199710.....	199809
CS.....	200810.....	201109
RFI/CMS.....	201209.....	201510
CMI(C).....	201409.....	201608
CMI(O).....	201609.....	204509
RIP Date:	201609	
RC Date:	204509	

SITE DESCRIPTION

Building J-1303 is an industrial warehouse at Fort Bragg. Surrounding land use is industrial, and a recreation storage facility does exist to the north of the building. A large undeveloped wetland area is located immediately to the west and south of the site.

The 6,000-gallon heating oil UST was removed in 1998 by GulfStream Environmental, Inc. Petroleum constituents were found above action levels during site closure. An LSA report was completed in 2009 by Terranear PMC, and discovered chlorinated solvents in the groundwater. The source of the solvents is unknown, and is not suspected to be from on-site operations.

A Phase II LSA report was completed in 2011 by the Savannah District of the USACE. The conclusions of this assessment are that soil contamination was very limited and the detected compounds were well below the soil to groundwater MSCC. The groundwater sampling indicates that the only contaminant exceeding the NC 2L standard and USEPA National Criteria is the chlorinated VOC, PCE. The July 2014 RFI found PCE above NC 2L in 5 of the 11 on-site groundwater monitoring wells and TCE above NC 2L in one well. PCE contamination seems to be confined to the 6 to 16 foot bgs aquifer zone. No VOCs were detected in the surface water sampled. A CMS will be completed under the contract noted below.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. RIP or CMI(C) by Sept. 30, 2017 is required by this contract. Post-contract costs are estimated based on appropriate CLINs from this contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

In 2013, Fort Bragg elected to perform VI investigations on all buildings overlying, or adjacent to, a known contaminated groundwater plume. Per the updated USEPA Subsurface VI guidance and discussions with NCDENR, a VI study is required to determine the presence or absence of migrated volatile chemical vapors into 1 building overlying the known contamination plume at CCFTBR0089. The VI study for 13 sites at Fort Bragg will be included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. All sites costs will be tracked through the open RI Phase for CCFTBR0074 in AEDB-R.

CLEANUP/EXIT STRATEGY

The current PBA contractor will complete a CMS and will initiate a remedy, which is anticipated to be long-term monitoring. It is expected that long-term monitoring, CMI(O), will continue at this site post-contract.

Site ID: CCFTBR0097
Site Name: UST Investigation, 2-1731
Alias: BLD 2-1731

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	200210.....	200309
INV.....	200810.....	201009
LTM.....	201305.....	204502

RIP Date: N/A

RC Date: 201305

SITE DESCRIPTION

Building 2-1731 is an historic administration building at Fort Bragg. Surrounding land use is mixed use, with administrative and industrial operations in the immediate area.

The 6,000-gallon No. 2 fuel oil UST was removed in 2003, but a closure report is not available. An LSA was performed by Terranear, PMC, in 2009. Napthalene and EPH/VPH were detected at levels above the NCDENR 2L groundwater quality standard, but at levels below their respective GCLs.

An NRP for groundwater is required to close this site, and will be completed under the contract noted below. This site received an NFA decision from the NCDENR on May 14, 2013, via an NRP. LUCs are now in place and are documented in the Installation Master Plan.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. RC by Sept. 30, 2014 is required by the contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0098
Site Name: UST Investigation, C-8727-B
Alias: BLD C-8727

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	199710.....	199809
INV.....	200410.....	201009
CAP.....	201010.....	201109
IMP(C).....	201110.....	201408
IMP(O).....	201409.....	201709

RIP Date: 201409

RC Date: 201709

SITE DESCRIPTION

Former UST C-8727-B was a 15,000-gallon heating oil tank, closed in place in December 2011. The UST, servicing a large boiler in this motor pool facility, was replaced by a 6,000-gallon AST. Land use surrounding this tank is mostly industrial, consisting of a large multi-tenant vehicle maintenance complex.

Soil analysis during tank closure identified one constituent above North Carolina's MSCC: C9-C22 aromatics. A number of other constituents were identified in soil, but at levels below the MSCC. A number of constituents were identified in groundwater via a temporary monitoring well. Each of the following exceeded its respective NC 2L groundwater standard: C9-C18 aliphatics, C9-C22 aromatics, benzene, naphthalene, and 2-methylnaphthalene. The NCDENR issued a NORR on June 14, 2012, requiring the completion of a LSA report.

Discussions between Fort Bragg and NCDENR concluded that groundwater plumes at sites CCFTBR0042 and CCFTBR0098 were commingled. Due to the combination of plumes, close proximity of the former tank locations, and similarity of former UST contents, these two sites should be addressed together. NCDENR issued a letter in February 2013 administratively closing CCFTBR0042 and combining future remedial investigations under CCFTBR0098. The CAP for CCFTBR0042 (prepared in October 2011) will now govern CCFTBR0098. The CAP for this site requires annual gauging of all site wells, quarterly free-product recovery efforts at all wells where free-product is detected. During the May 2012-February 2013 CAP monitoring period, free-product was observed in four wells, at thicknesses ranging from 0.09 to 1.77 feet.

An LSA and SAR activities were performed at the site between November 2012 and February 2013. Naphthalene and 2-methylnaphthalene were detected above soil-to-groundwater MSCCs. C9-C22 and C9-C18 aromatics, and 2-methylnaphthalene were detected above residential MSCCs. These compounds were found in soils between 5 and 15 bgs. Benzene, naphthalene, 2-methylnaphthalene, and C9-C22 and C9-C18 aromatics were also detected in the groundwater above NC 2L but below GCLs. The site was listed as an intermediate risk. Free-product recovery and sampling will continue as directed by the CAP through the contract listed below.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. The site will continue in IMP(O) phase through the end of the contract (September 2017). RC by Sept. 30, 2017 is required by this contract. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

The current PBA contractor will complete an LSA report and free-product recovery. RC is required by the contract by Sept. 30, 2017.

Site ID: CCFTBR0100
Site Name: 21st Chem Motor Pool
Alias: 21st CMP

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	201211.....	201212
INV.....	201301.....	201602

RIP Date: N/A

RC Date: 201708

SITE DESCRIPTION

Geotechnical borings to support construction of a Tactical Equipment Maintenance Facility (TEMF) motor pool facility identified possible soil contamination (wet soil with odors). Fort Bragg completed CS to confirm contamination in the soil and in the groundwater. An LSA/SAR was conducted in February 2013. Both media were contaminated with petroleum hydrocarbons. NCDENR is requesting further investigation via an NORR letter. A CSA will be completed under the new PBA contract.

This site is included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. RIP/RC is anticipated by the end of the contract (September 2017). Future work, if necessary, will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Because the source of this petroleum release is not known, Fort Bragg will prepare a CSA document at this site. Because the outcome of the investigation is unknown, it would be premature to predict a remedy.

Site ID: CCFTBR0103
Site Name: Building 3-2147 AST Investigation
Alias: BLD 3-2147

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	201302.....	201303
INV.....	201408.....	201708

RIP Date: N/A

RC Date: 201708

SITE DESCRIPTION

Building 3-2147 is a current building located along Sabrejet Street and Gordan Road at Fort Bragg. The site currently has two 13,000-gallon diesel ASTs, along the western edge of the building.

On Feb. 26, 2013, utility contractors uncovered a suspected leak at the northwest corner of Building 3-2147. A fuel smell was noticed in the soil around where the fuel lines entered the building, approximately 4- to 6-feet deep. At that time, all pumps to the tanks were turned off. A line leak test was performed on March 7, 2013 by National Tank Monitor, confirming a leak had occurred. Southern Pump and Tank repaired the line in March 2013 and retested the line.

Additional work is required to determine the extent of the petroleum-related contamination. An NORR was issued by the NCDENR on March 22, 2013, requesting an initial assessment report be completed. Subsequent discussions with NCDENR concluded that an LSA and SAR would be sufficient investigations to determine the presence or absence of contamination at the site. The SAR and LSA will be conducted under the inventory phase.

This site is included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. RIP/RC is anticipated by the end of the contract (September 2017). Future work, if necessary, will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Because the extent of this petroleum release is not known, Fort Bragg will prepare an LSA and SAR documents at this site. Because the outcome of the investigation is unknown, it would be premature to predict a remedy.

Site ID: CCFTBR0310
Site Name: TU506 Building 322 Ethridge Street
Alias: TU506

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	199610.....	199709
INV.....	200710.....	201310
LTM.....	201310.....	204502

RIP Date: N/A

RC Date: 201310

SITE DESCRIPTION

Building 322 is a historic military family housing unit, located along Ethridge Street at Pope AAF. Surrounding land use is residential and recreational in nature, with Willow Lakes Golf Course to the southeast.

One 500-gallon heating oil UST was removed in 1997. Visibly impacted soils were observed during the tank closure. CS revealed TPH concentrations exceeding the NC soil action levels for protection of groundwater. An LSA performed in February 2008 by CH2M Hill. Aromatics were detected in soils above residential MSCCs and benzene was detected in the groundwater at NC 2L. A limited site and groundwater investigation was performed in November 2010 by the USACE, Savannah District. Benzene was detected above MCLs in groundwater and naphthalene was detected in soils above MSCCs but below GCLs.

A SAR was conducted in May 2013. C9-C22 and C19-C36 aromatics were detected above residential MSCCs in the smear zone (5 - 8.5 ft bgs). Since the soil contamination is confined to the smear zone and is below residential MSCCs in the unsaturated zone, an NRP is requested only for groundwater. NCDENR issued an NORR requesting an NRP in August 2013. The NRP will be completed via the contract noted below.

This site received an NFA decision from the NCDENR on Oct. 21, 2013, via an NRP. LUCs are now in place and are documented in the Installation Master Plan.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. RC by Sept. 30, 2014 is required by the contract and was achieved on Oct. 21, 2013. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0312
Site Name: Building 334 Ethridge Street UST
Alias: TU508

STATUS

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

Phases	Start	End
ISC.....	199610.....	199709
INV.....	200710.....	201310
LTM.....	201310.....	204502
RIP Date:	N/A	
RC Date:	201310	

SITE DESCRIPTION

Building 334 is a historic military family housing unit, located along Ethridge Street at Pope AAF. Surrounding land use is residential and recreational in nature, with Willow Lakes Golf Course to the southeast.

One 550-gallon heating oil UST was removed in 1997 by Envirotech, Inc. Visibly impacted soils were observed during the tank closure and removed from the site for disposal. Analytical testing showed petroleum contamination in the soils removed during tank closure. An LSA was performed in February 2008 by CH2M Hill. TPH were detected in soils exceeding NC soil action levels for protection of groundwater. Groundwater results showed the presence of SVOCs and aromatics above NC 2L. A NC monitoring report was performed in December 2011 by the USACE, Savannah District. VOCs, SVOCs, and VPHs/EPHs were detected above NC 2L. A NCDENR letter, dated May 2012, requested an Notice of Residual Petroleum (NRP) be completed for the site. One round of confirmation groundwater sampling and a land survey was completed for the NRP on May 15, 2013.

This site received an NFA decision from the NCDENR on Oct. 21, 2013, via an NRP. LUCs are now in place and are documented in the Installation Master Plan.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. RC by Sept. 30, 2014 is required by the contract and was achieved on Oct. 21, 2013. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0313
Site Name: TU500 Building 415 AAFES Gas Statio
Alias: TU500

STATUS

Regulatory Driver: RCRA
 Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)
 Media of Concern: Groundwater

Phases	Start	End
ISC.....	200010.....	200209
INV.....	200210.....	201310
LTM.....	201310.....	204502
RIP Date:	N/A	
RC Date:	201310	

SITE DESCRIPTION

Building 415 is a current AAFES Service Station, located along Armistead Street at Pope AAF. Surrounding land use is a mixed use of administrative, residential, and recreational facilities.

Three 10,000-gallon gasoline USTs are currently being used at the site. Following observed free-product in the groundwater wells surrounding the tanks, a LSA was performed in 2003 by Environmental Hydrogeological Consultants, Inc. TPH-DRO were discovered in soils above the NC soil residential standards and benzene, toluene, ethylbenzene, and xylene; methyl tert-butyl ether and isopropyl ether were above NC 2L in groundwater. The fuel lines for the three USTs were removed by Toltest, Inc. in December 2003 and replaced. Contaminated soils were removed from site during line removal and disposed of off-site. TPH-GRO were detected in the soils above detection limits. An NCDENR letter, dated November 2011, requests an LSA be conducted.

An LSA was conducted in May 2013. Groundwater contamination levels were above screening levels (NC 2L); however, soil contamination is below MSCCs. NCDENR issued an NORR requesting an NRP in August 2013. The NRP will be completed via the contract noted below.

This site received an NFA decision from the NCDENR on Oct. 21, 2013, via an NRP. LUCs are now in place and are documented in the Installation Master Plan.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. RC by Sept. 30, 2014 is required by the contract and was achieved Oct. 21, 2013. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0314
Site Name: Building 707 UST Investigation
Alias: TU501

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater

Phases	Start	End
ISC.....	199810.....	199909
INV.....	200310.....	201310
LTM.....	201310.....	204502

RIP Date: N/A

RC Date: 201310

SITE DESCRIPTION

Building 707 is a current electrical power station, located along Survey Street on Pope AAF. Surrounding land use is administrative and industrial facilities, with the Pope Airfield to the south.

One 200-gallon diesel UST was removed in 1999 by Westar Corporation. VOCs were detected above detection limits in excavated soils. An LSA was performed in January 2004 by Environmental Hydrogeological Consultants, Inc. Ethylbenzene was detected in groundwater above NC 2L and C5-C8 aliphatics and C9-C10 aromatics were detected above interim groundwater standards. An additional groundwater investigation was performed in November 2010 by the USACE, Savannah District. Lead was detected exceeding maximum contaminate levels. An NCDENR letter, dated October 2011, requested an NRP be completed for the site. One round of confirmation groundwater sampling and a land survey were requested for completion of the NRP, and were completed under the contract noted below.

This site received an NFA decision from the NCDENR on Oct. 21, 2013, via an NRP. LUCs are now in place and are documented in the Installation Master Plan.

This site is included in a PBA contract with Parsons awarded in FY12, with a POP through FY17. RC by Sept. 30, 2014 is required by the contract and was achieved on Oct. 21, 2013. Periodic reviews will be captured in the FTBR-103 AEDB-R site. Future work will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Site closeout was obtained through an NRP. Fort Bragg must maintain groundwater LUCs contained in the NRP, and conduct periodic reviews on this site in the future.

Site ID: CCFTBR0323
Site Name: Building 708 UST Investigation
Alias: BLD 708

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	199310.....	199409
INV.....	199510.....	201708

RIP Date: N/A

RC Date: 201708

SITE DESCRIPTION

Building 708 is a current building located along Surveyor Street at Pope AAF. Surrounding land use is administrative and industrial in nature, with Pope Airfield to the south-southwest.

One 6,000-gallon fuel oil UST was removed in 1994 by Earth Tech Remediation Services. Analytical testing showed TPH-DRO was present in the soils removed during tank closure. A UST site investigation was performed in 1996 by Parsons Engineering Science, Inc. TPH-DRO concentrations in soils exceeded state initial action levels for soil. Contaminates in groundwater that exceeded the NC 2L standards included lead and BTEX. An NCDENR letter, dated November 2011, requested an LSA be conducted. The site is expected to be closed with an NFA.

This site is included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. RIP/RC is anticipated by the end of the contract (September 2017). Future work, if necessary, will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Fort Bragg expects to be able to close this site with an NFA after the investigation action (LSA/SAR) is complete.

Site ID: CCFTBR0324
Site Name: Building 756 UST Investigation
Alias: OT533

STATUS

Regulatory Driver: RCRA

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

Media of Concern: Soil

Phases	Start	End
ISC.....	199410.....	199509
INV.....	199510.....	204509
RIP Date:	N/A	
RC Date:	204509	

SITE DESCRIPTION

Building 756 is a current military vehicle refueling site located at the intersection of Hurst Drive and Surveyor Street at Pope AAF. Surrounding land use is administrative and industrial in nature, with Pope Airfield to the southeast.

One 275-gallon heating oil tank UST was removed in 1994 by Earth Tech Remediation Services. Soil contamination revealed TPH-DRO and TPH-GRO exceeding regulatory limits. An SI was performed in 1996. Groundwater contamination was found exceeding NC 2L.

Two 10,000-gallon gasoline, and one 10,000-gallon and one 6,000-gallon diesel USTs were removed in 1998 by Westar Corporation. Soil samples taken during tank closure noted contamination above NC 2L. A 2003 LSA by Environmental Hydrogeological Consultants, Inc. indicated groundwater contamination above NC 2L; however a subsequent LSA in 2004 found groundwater constituents at or below NC 2L. An NCDENR letter, dated May 2011, requested a site assessment report be conducted. An NFA is expected.

In May 2011, a site visit was conducted for the recommended LSA. Building 756 contains: two current USTs (replacement for the four previously removed), numerous other underground piping/lines, and is capped with concrete. Numerous utility lines transect the site and the current USTs. Due to extensive development at the site and current use as a fueling point, sampling could not be performed. Coordination with USACE and NCDENR has recommended that no drilling or boring occur until the current tanks are removed. It was decided to place the site on hold until current use of the site as a fueling point ceases. Due to the current nature of the site, investigations and/or remedial actions at this site have been postponed. The site will remain open in AEDB-R until that time.

CLEANUP/EXIT STRATEGY

Once current site use as a fueling station ceases, and the tank/utility lines removed, an LSA will be performed. Remedial actions will be determined following results of the investigation.

Site ID: CCFTBR0328
Site Name: Building 818 50,000-gallon UST Inv
Alias: TU512

STATUS

Regulatory Driver: RCRA

Contaminants of Concern: Pesticides, Petroleum, Oil and Lubricants (POL), Polychlorinated Biphenyls (PCB)

Media of Concern: Groundwater, Soil

Phases	Start	End
ISC.....	199610.....	199709
INV.....	199710.....	201708

RIP Date: N/A

RC Date: 201708

SITE DESCRIPTION

Building 818 is a former building that was part of the Blue Ramp hydrant system, located between Blue Ramp and the Pope Airfield runway at Pope AAF.

Eight USTs have been removed from the site: six 50,000-gallon JP-8, and two 2,000-gallon used oil. The 2,000-gallon used oil tanks were removed in 1997 and 2001, and operated as spill prevention collection tanks for the 50,000-gallon tanks (removed in 2008). A 1997 closure report for the 2,000-gallon revealed no soil contaminates above reporting limits. The 2001 closure report for the remaining 2,000-gallon tank showed the presence of petroleum hydrocarbons in excess of NC risk-based corrective action soil-to-groundwater MSCC levels in soils. Pesticides, PCBs, and bis(2-ethylhexyl)phthalates were also found in the soils removed from the tank pit. A 2004 LSA was performed in the area of the 2,000-gallon tanks. No soil contaminates were found above detectable levels; however, groundwater constituents were detected in the form of: ethylbenzene, n-butylbenzene, naphthalene, n-propylbenzene, trimethylebenzene, lead and chromium above NC 2L. In January 2009, an NFA letter was issued by NCDENR for the 2,000-gallon tanks.

The six 50,000-gallon JP-8 USTs were removed as part of the Blue Ramp hydrant system demolition project. Phase I efforts capped the hydrant lines in-place in 2007 and the USTs were removed in 2008 under Phase II. TPH-DRO and TPH-GRO were detected in the tank pits, fuel lines, stockpiled soils, and over-excavated soils. The stock pile soils were removed and disposed of off-site. An LSA is being requested by the NCDENR. This site is expected to close with an NRP.

This site is included in a PBA contract with Bay West/Weston awarded in FY14, with a POP through FY17. RIP/RC is anticipated by the end of the contract (September 2017). Future work, if necessary, will be performed under a PBA5 contract, to be awarded in FY18.

CLEANUP/EXIT STRATEGY

Following the investigation action (LSA/SAR), Fort Bragg expects to be able to close this site with an NRP with LUCs. Any continuing LUCs will be maintained as prescribed.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
CC PBC@Bragg	PBA@CR	201403	
CCFTBR0022	UST REMEDIATION, PHASE II BLDG C-9229	201411	
CCFTBR0025	UST REMEDIATION, PHASE II BLDG H-2260-B	201010	Petroleum NFA letter dated Jan. 21, 2010; Solvent NFA letter dated Oct. 18, 2010
CCFTBR0040	UST Remediation, 2-4717A	201010	NFA letter dated Oct. 14, 2010
CCFTBR0041	UST Remediation, 2-3621A	201003	NFA letter dated March 19, 2010
CCFTBR0042	UST Remediation, C-8727-A	201302	
CCFTBR0047	UST Investigation, 1-1526	201011	NFA letter dated Nov. 9, 2010
CCFTBR0050	UST Remediation, D-2340-B	201205	NFA letter dated May 1, 2012
CCFTBR0051	UST Investigation, 1-2336-A	201011	NFA letter dated Nov. 9, 2010
CCFTBR0052	UST Investigation, 1-4157-A	201011	NFA letter dated Nov. 9, 2010
CCFTBR0053	UST Investigation, 1-5132-A	201011	NFA letter dated Nov. 9, 2010
CCFTBR0055	UST Investigation, 4-2472-A	201011	NFA letter dated Nov. 9, 2010
CCFTBR0059	UST Investigation, M-2651-A	201011	NFA letter dated Nov. 9, 2010
CCFTBR0060	UST Investigation, N-5505	201011	NFA letter dated Nov. 9, 2010
CCFTBR0061	UST Investigation, O-9001-A	201105	NFA letter dated May 16, 2011
CCFTBR0062	UST Investigation, P-2936-C	201011	NFA letter dated Nov. 15, 2010
CCFTBR0063	UST Investigation, 8-5303-A	201011	NFA letter dated Nov. 9, 2010
CCFTBR0064	UST Investigation, 8-5306-A	201011	NFA letter dated Nov. 9, 2010
CCFTBR0065	UST Investigation, 8-5703-A	201011	NFA letter dated Nov. 9, 2010
CCFTBR0066	UST Investigation, 8-7006-A	201101	NFA letter dated Jan. 6, 2011
CCFTBR0069	UST Investigation, M-5040	201011	NFA letter dated Nov. 9, 2011
CCFTBR0071	UST Investigation, G-6849-A	201008	NFA letter dated Aug. 27, 2010
CCFTBR0072	UST Investigation, 1-1242-A	201307	
CCFTBR0073	UST Investigation, A-4664	201008	NFA letter dated Aug. 26, 2010
CCFTBR0075	UST Investigation, F-3121-A	201107	NFA letter dated July 21, 2011
CCFTBR0076	UST Investigation, C-7549	201107	NFA letter dated July 21, 2011
CCFTBR0077	UST Investigation, 2-1361-A	201205	NFA letter dated May 1, 2012
CCFTBR0078	UST Investigation, 5-5250	201107	NFA letter dated July 18, 2011
CCFTBR0079	UST Investigation, 2-1249	201206	Petroleum NFA letter dated May 1, 2012; Solvent NFA letter dated June 14, 2012
CCFTBR0081	UST Investigation, 6-4641-B	201205	NFA letter dated May 1, 2012
CCFTBR0082	UST Investigation, 6-8018-D	201205	NFA letter dated May 1, 2012
CCFTBR0083	UST Investigation, 6-8308	201205	NFA letter dated May 1, 2012
CCFTBR0085	UST Investigation, A-2207-A	201205	NFA letter dated May 1, 2012
CCFTBR0086	UST Investigation, B-3811-C	201205	NFA letter dated May 1, 2012
CCFTBR0088	UST Investigation, B-7013-C/D	201205	NFA letter dated May 1, 2012
CCFTBR0090	UST Investigation, Varsity A/B	201210	NFA letter dated May 2, 2012

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
CCFTBR0092	UST Investigation, M-7238	201205	NFA letter dated May 29, 2012
CCFTBR0093	UST Investigation, M-7240	201206	Petroleum NFA letter dated May 25, 2012; Solvent NFA letter dated June 14, 2012
CCFTBR0094	JIB Soil Removal Project	201503	
CCFTBR0095	UST Investigation, 1-1460-F	201308	
CCFTBR0096	UST Investigation, 2-1559	201308	
CCFTBR0099	AST Investigation, J-1138	201308	
CCFTBR0309	Building 289 UST Investigation	201308	
CCFTBR0311	Building 324 Ethridge Street UST	201308	
CCFTBR0315	Building 761 UST Investigation	201308	
CCFTBR0316	Building 766 UST Investigation	201308	
CCFTBR0317	Building 820 UST Investigation	201308	
CCFTBR0318	TU527 Building 900 UST Inv.	201308	
CCFTBR0321	Building 650 UST Investigation	201308	
CCFTBR0322	Building 805 UST Investigation	201308	

CR Schedule

Date of CR Inception: 198801

Past Phase Completion Milestones

1988

RFA (CCFTBR0011 - HW SITE INVESTIGATION (RFI) OU 6, CCFTBR0038 - RCRA Investigation - AST BLDG A-2709, CCFTBR0039 - HW Investigation - OWS BLDG 2-1251)

1993

ISC (CCFTBR0043 - UST Remediation, D-1402, CCFTBR0085 - UST Investigation, A-2207-A , CCFTBR0086 - UST Investigation, B-3811-C , CCFTBR0088 - UST Investigation, B-7013-C/D , CCFTBR0090 - UST Investigation, Varsity A/B , CCFTBR0092 - UST Investigation, M-7238)

1994

ISC (CCFTBR0309 - Building 289 UST Investigation, CCFTBR0315 - Building 761 UST Investigation, CCFTBR0323 - Building 708 UST Investigation)

1995

ISC (CCFTBR0324 - Building 756 UST Investigation)

1996

ISC (CCFTBR0316 - Building 766 UST Investigation)

1997

ISC (CCFTBR0310 - TU506 Building 322 Ethridge Street , CCFTBR0311 - Building 324 Ethridge Street UST, CCFTBR0312 - Building 334 Ethridge Street UST, CCFTBR0328 - Building 818 50,000-gallon UST Inv)

1998

RFA (CCFTBR0072 - UST Investigation, 1-1242-A, CCFTBR0089 - UST Investigation, J-1303)

ISC (CCFTBR0042 - UST Remediation, C-8727-A, CCFTBR0071 - UST Investigation, G-6849-A, CCFTBR0080 - UST Investigation, 4-3124-A, CCFTBR0081 - UST Investigation, 6-4641-B , CCFTBR0082 - UST Investigation, 6-8018-D , CCFTBR0083 - UST Investigation, 6-8308 , CCFTBR0098 - UST Investigation, C-8727-B)

1999

ISC (CCFTBR0041 - UST Remediation, 2-3621A, CCFTBR0048 - UST Investigation, 2-3627-A/B, CCFTBR0314 - Building 707 UST Investigation, CCFTBR0318 - TU527 Building 900 UST Inv.)

2002

ISC (CCFTBR0313 - TU500 Building 415 AAFES Gas Statio, CCFTBR0321 - Building 650 UST Investigation)

2003

ISC (CCFTBR0015 - UST REMEDIATION, PHASE II BLDG 6-9344, CCFTBR0016 - UST REMEDIATION, PHASE II 8-3004 POL #2, CCFTBR0017 - UST REMEDIATION, PHASE II BLDG 8-5476, CCFTBR0019 - UST REMEDIATION, PHASE II @ A-3686 AAFES, CCFTBR0021 - UST REMEDIATION, PHASE II BLDG C-3515, CCFTBR0022 - UST REMEDIATION, PHASE II BLDG C-9229, CCFTBR0024 - UST REMEDIATION, PHASE II BLDG D-2340-A, CCFTBR0025 - UST REMEDIATION, PHASE II BLDG H-2260-B, CCFTBR0027 - UST REMEDIATION, PHASE II BLDG M-2125, CCFTBR0097 - UST Investigation, 2-1731, CCFTBR0322 - Building 805 UST Investigation)

2004

ISC (CCFTBR0013 - UST REMEDIATION, CSA POL Point #1, CCFTBR0037 - UST Remediation - SAAF Hydrant System, CCFTBR0050 - UST Remediation, D-2340-B)

2005

ISC (CCFTBR0040 - UST Remediation, 2-4717A)

RFI/CMS (CCFTBR0011 - HW SITE INVESTIGATION (RFI) OU 6)

2007

ISC (CCFTBR0067 - UST Monitoring, C-9224)

INV (CCFTBR0037 - UST Remediation - SAAF Hydrant System, CCFTBR0040 - UST Remediation, 2-4717A)

CMI(C) (CCFTBR0011 - HW SITE INVESTIGATION (RFI) OU 6)

2008

INV (CCFTBR0013 - UST REMEDIATION, CSA POL Point #1, CCFTBR0015 - UST REMEDIATION, PHASE II BLDG 6-9344, CCFTBR0016 - UST REMEDIATION, PHASE II 8-3004 POL #2, CCFTBR0017 - UST

CR Schedule

	REMEDICATION, PHASE II BLDG 8-5476, CCFTBR0021 - UST REMEDIATION, PHASE II BLDG C-3515, CCFTBR0024 - UST REMEDIATION, PHASE II BLDG D-2340-A, CCFTBR0027 - UST REMEDIATION, PHASE II BLDG M-2125, CCFTBR0042 - UST Remediation, C-8727-A, CCFTBR0043 - UST Remediation, D-1402, CCFTBR0044 - AST Remediation Fluoride Spill, CCFTBR0050 - UST Remediation, D-2340-B)
IMP(C)	(CCFTBR0044 - AST Remediation Fluoride Spill)
RFI/CMS	(CCFTBR0038 - RCRA Investigation - AST BLDG A-2709)
ISC	(CCFTBR0044 - AST Remediation Fluoride Spill, CCFTBR0046 - UST Investigation, 2-1549, CCFTBR0047 - UST Investigation, 1-1526, CCFTBR0051 - UST Investigation, 1-2336-A, CCFTBR0052 - UST Investigation, 1-4157-A, CCFTBR0053 - UST Investigation, 1-5132-A, CCFTBR0055 - UST Investigation, 4-2472-A, CCFTBR0059 - UST Investigation, M-2651-A, CCFTBR0060 - UST Investigation, N-5505, CCFTBR0061 - UST Investigation, O-9001-A, CCFTBR0062 - UST Investigation, P-2936-C, CCFTBR0063 - UST Investigation, 8-5303-A, CCFTBR0064 - UST Investigation, 8-5306-A, CCFTBR0065 - UST Investigation, 8-5703-A, CCFTBR0066 - UST Investigation, 8-7006-A, CCFTBR0068 - UST Investigation, D-1926-A, CCFTBR0069 - UST Investigation, M-5040, CCFTBR0073 - UST Investigation, A-4664, CCFTBR0077 - UST Investigation, 2-1361-A, CCFTBR0317 - Building 820 UST Investigation)
DES	(CCFTBR0044 - AST Remediation Fluoride Spill)
CAP	(CCFTBR0044 - AST Remediation Fluoride Spill)
2009	
IRA	(CCFTBR0017 - UST REMEDIATION, PHASE II BLDG 8-5476)
CMI(C)	(CCFTBR0038 - RCRA Investigation - AST BLDG A-2709)
CS	(CCFTBR0074 - Cook Street Warehouse Complex)
CAP	(CCFTBR0016 - UST REMEDIATION, PHASE II 8-3004 POL #2, CCFTBR0017 - UST REMEDIATION, PHASE II BLDG 8-5476, CCFTBR0024 - UST REMEDIATION, PHASE II BLDG D-2340-A, CCFTBR0027 - UST REMEDIATION, PHASE II BLDG M-2125)
INV	(CCFTBR0048 - UST Investigation, 2-3627-A/B, CCFTBR0067 - UST Monitoring, C-9224)
ISC	(CCFTBR0075 - UST Investigation, F-3121-A, CCFTBR0076 - UST Investigation, C-7549, CCFTBR0078 - UST Investigation, 5-5250, CCFTBR0093 - UST Investigation, M-7240)
RFA	(CCFTBR0074 - Cook Street Warehouse Complex)
2010	
CAP	(CCFTBR0019 - UST REMEDIATION, PHASE II @ A-3686 AAFES, CCFTBR0021 - UST REMEDIATION, PHASE II BLDG C-3515, CCFTBR0043 - UST Remediation, D-1402)
ISC	(CC PBC@Bragg - PBA@CR, CCFTBR0079 - UST Investigation, 2-1249 , CCFTBR0095 - UST Investigation, 1-1460-F)
INV	(CC PBC@Bragg - PBA@CR, CCFTBR0019 - UST REMEDIATION, PHASE II @ A-3686 AAFES, CCFTBR0022 - UST REMEDIATION, PHASE II BLDG C-9229, CCFTBR0025 - UST REMEDIATION, PHASE II BLDG H-2260-B, CCFTBR0041 - UST Remediation, 2-3621A, CCFTBR0071 - UST Investigation, G-6849-A, CCFTBR0073 - UST Investigation, A-4664, CCFTBR0097 - UST Investigation, 2-1731, CCFTBR0098 - UST Investigation, C-8727-B)
IMP(C)	(CC PBC@Bragg - PBA@CR, CCFTBR0027 - UST REMEDIATION, PHASE II BLDG M-2125)
IRA	(CCFTBR0021 - UST REMEDIATION, PHASE II BLDG C-3515)
2011	
CS	(CCFTBR0072 - UST Investigation, 1-1242-A, CCFTBR0089 - UST Investigation, J-1303)
IMP(C)	(CCFTBR0019 - UST REMEDIATION, PHASE II @ A-3686 AAFES, CCFTBR0021 - UST REMEDIATION, PHASE II BLDG C-3515, CCFTBR0024 - UST REMEDIATION, PHASE II BLDG D-2340-A, CCFTBR0025 - UST REMEDIATION, PHASE II BLDG H-2260-B, CCFTBR0040 - UST Remediation, 2-4717A, CCFTBR0043 - UST Remediation, D-1402, CCFTBR0048 - UST Investigation, 2-3627-A/B)
INV	(CCFTBR0047 - UST Investigation, 1-1526, CCFTBR0051 - UST Investigation, 1-2336-A, CCFTBR0052 - UST Investigation, 1-4157-A, CCFTBR0053 - UST Investigation, 1-5132-A, CCFTBR0055 - UST Investigation, 4-2472-A, CCFTBR0059 - UST Investigation, M-2651-A, CCFTBR0060 - UST Investigation, N-5505, CCFTBR0061 - UST Investigation, O-9001-A, CCFTBR0062 - UST Investigation, P-2936-C, CCFTBR0063 -

CR Schedule

	UST Investigation, 8-5303-A, CCFTBR0064 - UST Investigation, 8-5306-A, CCFTBR0065 - UST Investigation, 8-5703-A, CCFTBR0066 - UST Investigation, 8-7006-A, CCFTBR0068 - UST Investigation, D-1926-A, CCFTBR0069 - UST Investigation, M-5040, CCFTBR0075 - UST Investigation, F-3121-A, CCFTBR0076 - UST Investigation, C-7549, CCFTBR0078 - UST Investigation, 5-5250)
IMP(O)	(CC PBC@Bragg - PBA@CR, CCFTBR0027 - UST REMEDIATION, PHASE II BLDG M-2125)
CAP	(CCFTBR0013 - UST REMEDIATION, CSA POL Point #1, CCFTBR0015 - UST REMEDIATION, PHASE II BLDG 6-9344, CCFTBR0022 - UST REMEDIATION, PHASE II BLDG C-9229, CCFTBR0042 - UST Remediation, C-8727-A, CCFTBR0098 - UST Investigation, C-8727-B)
IRA	(CCFTBR0013 - UST REMEDIATION, CSA POL Point #1, CCFTBR0015 - UST REMEDIATION, PHASE II BLDG 6-9344, CCFTBR0022 - UST REMEDIATION, PHASE II BLDG C-9229)
ISC	(CCFTBR0096 - UST Investigation, 2-1559)
2012	
RFA	(CCFTBR0099 - AST Investigation, J-1138)
RFI/CMS	(CCFTBR0072 - UST Investigation, 1-1242-A)
CMI(C)	(CCFTBR0072 - UST Investigation, 1-1242-A)
CS	(CCFTBR0099 - AST Investigation, J-1138)
INV	(CCFTBR0077 - UST Investigation, 2-1361-A, CCFTBR0079 - UST Investigation, 2-1249 , CCFTBR0081 - UST Investigation, 6-4641-B , CCFTBR0082 - UST Investigation, 6-8018-D , CCFTBR0083 - UST Investigation, 6-8308 , CCFTBR0085 - UST Investigation, A-2207-A , CCFTBR0086 - UST Investigation, B-3811-C , CCFTBR0088 - UST Investigation, B-7013-C/D , CCFTBR0092 - UST Investigation, M-7238, CCFTBR0093 - UST Investigation, M-7240)
CAP	(CCFTBR0037 - UST Remediation - SAAF Hydrant System)
IMP(C)	(CCFTBR0022 - UST REMEDIATION, PHASE II BLDG C-9229, CCFTBR0050 - UST Remediation, D-2340-B)
CMI(O)	(CCFTBR0038 - RCRA Investigation - AST BLDG A-2709)
SI	(CCFTBR-H - Pope Golf Course Pesticide Site)
PA	(CCFTBR-H - Pope Golf Course Pesticide Site)
IRA	(CCFTBR0037 - UST Remediation - SAAF Hydrant System)
2013	
IMP(C)	(CCFTBR0013 - UST REMEDIATION, CSA POL Point #1, CCFTBR0015 - UST REMEDIATION, PHASE II BLDG 6-9344, CCFTBR0016 - UST REMEDIATION, PHASE II 8-3004 POL #2, CCFTBR0017 - UST REMEDIATION, PHASE II BLDG 8-5476, CCFTBR0037 - UST Remediation - SAAF Hydrant System, CCFTBR0042 - UST Remediation, C-8727-A, CCFTBR0067 - UST Monitoring, C-9224)
RFI/CMS	(CCFTBR0099 - AST Investigation, J-1138)
INV	(CCFTBR0046 - UST Investigation, 2-1549, CCFTBR0080 - UST Investigation, 4-3124-A, CCFTBR0090 - UST Investigation, Varsity A/B , CCFTBR0094 - JIB Soil Removal Project, CCFTBR0095 - UST Investigation, 1-1460-F, CCFTBR0096 - UST Investigation, 2-1559, CCFTBR0309 - Building 289 UST Investigation, CCFTBR0311 - Building 324 Ethridge Street UST, CCFTBR0315 - Building 761 UST Investigation, CCFTBR0316 - Building 766 UST Investigation, CCFTBR0317 - Building 820 UST Investigation, CCFTBR0318 - TU527 Building 900 UST Inv., CCFTBR0321 - Building 650 UST Investigation, CCFTBR0322 - Building 805 UST Investigation)
ISC	(CCFTBR0094 - JIB Soil Removal Project, CCFTBR0100 - 21st Chem Motor Pool, CCFTBR0103 - Building 3-2147 AST Investigation)
CMI(O)	(CCFTBR0072 - UST Investigation, 1-1242-A)
2014	
INV	(CCFTBR0310 - TU506 Building 322 Ethridge Street , CCFTBR0312 - Building 334 Ethridge Street UST, CCFTBR0313 - TU500 Building 415 AAFES Gas Statio, CCFTBR0314 - Building 707 UST Investigation)
LTM	(CC PBC@Bragg - PBA@CR)
RFI/CMS	(CCFTBR0074 - Cook Street Warehouse Complex)
IMP(C)	(CCFTBR0098 - UST Investigation, C-8727-B)

CR Schedule

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
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Final RA(C) Completion Date: 201709

Schedule for Next Five-Year Review: 2019

Estimated Completion Date of CR at Installation (including LTM phase): 204512

FORT BRAGG CR Schedule

█ = phase underway

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR-H	Pope Golf Course Pesticide Site	RI/FS	█					
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0011	HW SITE INVESTIGATION (RFI) OU 6	CMI(O)	█	█				
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0013	UST REMEDIATION, CSA POL Point #1	IMP(O)	█	█				
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0015	UST REMEDIATION, PHASE II BLDG 6-9344	IMP(O)	█	█				
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0016	UST REMEDIATION, PHASE II 8-3004 POL #2	IMP(O)	█	█				
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0017	UST REMEDIATION, PHASE II BLDG 8-5476	IMP(O)	█	█				
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0019	UST REMEDIATION, PHASE II @ A-3686 AAFES	LTM	█	█	█	█	█	█
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0021	UST REMEDIATION, PHASE II BLDG C-3515	LTM	█	█	█	█	█	█
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0024	UST REMEDIATION, PHASE II BLDG D-2340-A	LTM	█	█	█	█	█	█
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0027	UST REMEDIATION, PHASE II BLDG M-2125	LTM	█	█	█	█	█	█
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0037	UST Remediation - SAAF Hydrant System	IMP(O)	█	█				
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0038	RCRA Investigation - AST BLDG A-2709	LTM	█	█	█	█	█	█
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0039	HW Investigation - OWS BLDG 2-1251	RFI/CMS	█					
		CMI(C)	█	█				
		CMI(O)			█	█	█	█
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0043	UST Remediation, D-1402	LTM	█	█	█	█	█	█
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0044	AST Remediation Fluoride Spill	IMP(O)	█	█				
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0046	UST Investigation, 2-1549	LTM	█	█	█	█	█	█
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0048	UST Investigation, 2-3627-A/B	LTM	█	█	█	█	█	█
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0067	UST Monitoring, C-9224	LTM	█	█	█	█	█	█
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0068	UST Investigation, D-1926-A	LTM	█	█	█	█	█	█

FORT BRAGG CR Schedule

SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0074	Cook Street Warehouse Complex	CMI(C)						
		CMI(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0080	UST Investigation, 4-3124-A	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0089	UST Investigation, J-1303	RFI/CMS						
		CMI(C)						
		CMI(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0097	UST Investigation, 2-1731	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0098	UST Investigation, C-8727-B	IMP(O)						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0100	21st Chem Motor Pool	INV						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0103	Building 3-2147 AST Investigation	INV						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0310	TU506 Building 322 Ethridge Street	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0312	Building 334 Ethridge Street UST	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0313	TU500 Building 415 AAFES Gas Statio	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0314	Building 707 UST Investigation	LTM						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0323	Building 708 UST Investigation	INV						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0324	Building 756 UST Investigation	INV						
SITE ID	SITE NAME	PHASE	FY16	FY17	FY18	FY19	FY20	FY21+
CCFTBR0328	Building 818 50,000-gallon UST Inv	INV						

Community Involvement

Technical Review Committee (TRC): None

Community Involvement Plan (Date Published): 201307

Restoration Advisory Board (RAB): No

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

Community Interest Solicited on: 201401

Efforts Taken to Determine Interest

An advertisement placed in the Fayetteville Observer ran on Jan. 6, 2014.

Results

Fort Bragg received two replies to the Jan. 6, 2014 newspaper advertisement, which is not sufficient interest to form a RAB.

Follow-up Procedures

Request for participation in a RAB is continually posted at Fort Bragg's IRP website (<http://www.bragg.army.mil/envbr/irp.htm>). Additionally, Fort Bragg will run an advertisement again in January 2016.

Additional Community Involvement Information

A community involvement plan was finalized in FY13. An update to this plan is currently in development, and should be finalized in June or July of 2016.

Administrative Record is located at

Building 3-1137, Butner Road
Environmental Compliance Branch
Environmental Sustainment Division
Directorate of Public Works
Fort Bragg, NC 28310
(910) 396-7432

Information Repository is located at

Cumberland County Library
300 Maiden Lane
Fayetteville, NC 28301
(910) 483-7727

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

TAPP Title: N/A

Potential TAPP: N/A

