

DECISION DOCUMENTS for Site USTs #208 & 209

EPD letter received w/ Notice to Implement dated	January 7, 2009
EPD letter received approving CAP-B dated	November 16, 1998
Transmittal letter sent to GA EPD w/ RTC dated	September 15, 1998
GA EPD letter received w/ Comments dated	August 15, 1998
Transmittal letter sent to GA EPD for CAP-B dated	April 20, 1998
CAP B dated	April 1998
Transmittal letter sent to GA EPD dated	August 22, 1997
GA EPD letter received approving CAP-A dated	July 23, 1997
Transmittal letter sent to GA EPD dated	March 31, 1997
CAP Part-A dated	March 1997



Georgia Department of Natural Resources

Environmental Protection Division
Underground Storage Tank Management Program
4244 International Parkway, Suite 104, Atlanta, Georgia 30354
Noel Holcomb, Commissioner
Carol A. Couch, Ph.D., Director
(404) 362-2687

January 7, 2009

Ms. Algeana Stevenson
Directorate, Public Works
U.S. Army/HQ3d Inf. Div. (Mech.)
1550 Frank Cochran Drive
Ft. Stewart, GA 31314-4927

**SUBJECT: Notice to Implement Corrective Action Plan (CAP)-Part B:
Building 275, USTs 208 & 209 Site
Bultman Avenue, East of E 1st Street
Ft. Stewart, Liberty County, GA
Facility ID: 9089036*1**

Dear Ms. Stevenson:

The Georgia Underground Storage Tank Management Program (USTMP) has received your letter, dated December 15, 2008, that forwarded a Revised CAP-B and a copy of the Eighth Sampling Event Monitoring Only Report for Underground Storage Tanks 208 and 209.

The technical proposal contained in the CAP-Part B for further investigation, monitoring and/or remediation of the current release is hereby approved by the USTMP. As a result of your CAP-Part B being technically approved, you are authorized to begin implementation of this plan.

Please submit an updated milestone schedule by **March 13, 2009**, listing specific dates, events and a timetable to complete the proposed activities. If you have any technical questions, please contact me at (404) 362-4529.

Sincerely,



William E. Logan
Advanced Geologist
Corrective Action Unit II

WEL:

S: land/landdocs/williaml/Pend09/9089036.120

cc: Lisa L. Lewis, GA EPD

File (CA): LIBERTY; 9089036



Georgia Department of Natural Resources

Environmental Protection Division

Underground Storage Tank Management Program

4244 International Parkway, Suite 104, Atlanta, Georgia 30354

Lonice C. Barrett, Commissioner

Harold F. Reheis, Director

(404)362-2687

November 16, 1998

Mr. John H. Spears
US Army/HQ3d Inf. Div. (Mech)
N: AFZP-DEV (Spears)
Building 1139
Ft. Stewart, GA 31314-5000

SUBJECT: Notice to Implement Semiannual Monitoring
Corrective Action Plan (CAP) - Part B:
Building 275 UST # 208 & 209
Fort Stewart, GA; Liberty County
Facility ID: 9089036*1

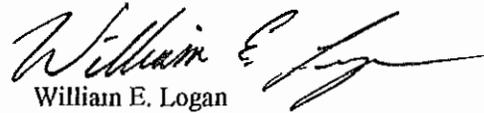
Dear Mr. Spears:

This is to acknowledge your letter, dated ~~September 15, 1998~~ ^{Sept. 15, 1998}, that forwarded the subject CAP-Part B, for our review. The report was prepared by Science Applications International Corporation.

We have conducted a technical review of the CAP-Part B. The bases for this review are the CAP-Part B content requirements referenced in paragraph 391-3-15-.09 of the Georgia Rules for Underground Storage Tank Management (GUST Rules, revised 1995). Based on the findings of the CAP - Part B, Georgia EPD has determined that a semiannual groundwater monitoring program should be implemented for the site. Additionally, if groundwater BTEX sampling results for the proposed downgradient monitoring well 42-10 exceed the predicted results of the fate and transport model, the model will be reevaluated using updated sampling data. Please submit an updated milestone schedule and technical proposal for the semiannual monitoring program to EPD by January 16, 1999.

If you have any questions, please contact the undersigned at (404)362-2687.

Sincerely,



William E. Logan

Geologist

Corrective Action Unit II

WEL;

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Enclosure - 1

cc: Patricia Stoll, Science Applications International Corporation

Lisa L. Lewis, EPD

Larry Rogers, EPD Coastal District

File (CA): Liberty, 9089036

*** UST Upgrade Deadline - December 22, 1998 ***





REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS, 3D INFANTRY DIVISION (MECHANIZED) AND FORT STEWART
Directorate of Public Works
1557 Frank Cochran Drive
Fort Stewart, Georgia 31314-4928

SEP 15 1998

Director, Public Works

CERTIFIED MAIL

Z-098-024-146

Georgia Department of Natural Resources
Environmental Protection Division
Underground Storage Tank Management Program
Attention: Mr. William Logan, Environmental Specialist
4244 International Parkway, Suite 104
Savannah, Georgia 30354

Dear Mr. Logan:

Fort Stewart is pleased to receive the Georgia Environmental Protection Division's (GA EPD's) August 15, 1998 correspondence regarding the Corrective Action Plan (CAP)-Part B for Fort Stewart's former Underground Storage Tanks #208 and #209, Building 275, Facility Identification Number 9089036 submitted in April 1998. GA EPD's review comments are addressed below:

Per Comment #1, Fort Stewart agrees that an additional monitoring well located east of the former tank pit will provide more data for development of potentiometric maps and will also provide a more accurate downgradient well location. This additional well will be installed as indicated on the enclosed figure. Well installation is scheduled for January 1999 and, once installed and developed, the new well (42-10) will be included in all future sampling events at this site.

Per Comment #2, a stormwater line is present in the vicinity of the former UST site and is at a depth of approximately 6½ feet below ground surface (bgs). Although groundwater is at a depth of between five and six feet bgs in this area, soil boring 42-04, located adjacent to, and upgradient of, the stormwater line, had no detects for either soil or groundwater contamination. This indicates that groundwater contamination has not reached the area downgradient and southeast of the former tank pit. Although, Fort Stewart concurs that the stormwater line has the potential to act as a preferential pathway for contamination, the location of the proposed downgradient well (downgradient of the former tank pit and upgradient of the stormwater line) will provide sufficient detection of groundwater contamination migrating towards the stormwater line.



The water line located in and around the former UST system is located at a depth of approximately two feet bgs, and was only used to serve the dispenser islands associated with the former USTs. Since the water table is between five and six feet bgs, the backfill associated with the water line would not be a preferential contamination pathway (i.e., the contaminated groundwater will remain at the soil/water interface). In addition, as indicated on the enclosed figure, there are no sewer lines in the vicinity of the former tank site.

Per comment #3, Fort Stewart and our contractor, SAIC, disagree with the requirement for a dually-cased vertical delineation well at the former USTs' site. Specifically, a vertical profile was installed, and vertical delineation of contamination achieved, during the CAP-Part B investigation. Although, Anderson Columbia Environmental (the UST removal contractor) stated that free product was observed, the Installation and SAIC are skeptical that free product was actually present.

The CAP-Part A groundwater samples were collected from temporary piezometers, capable of detecting free product since they were screened across the water table. This method of free product detection was approved by GA EPD in August 1997 while conducting an on-site visit, and in numerous correspondences since that time. Specifically, boring 42-01 (which was installed in the center of the former tank pit) did not indicate the presence of free product, nor did any of the other eight borings and/or permanent wells installed in and around the former tank pit. Since all investigations to date have not detected either a sheen on the soil/water interface or actual free product, Fort Stewart respectfully requests the GA EPD USTMP reconsider this request for installation of a dually-cased well at this site.

Per Comment #4, Fort Stewart agrees with the comment that evaluation of risk-based corrective action recommendations regarding the site cannot be made until additional data is gathered downgradient of the former tanks. If benzene (indicator chemical) contamination above 112 ug/L is identified, then the

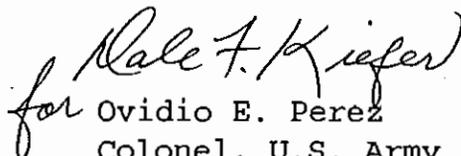


fate and transport model will be reevaluated and submitted to GA EPD for review and approval. However, if the identified contamination from the proposed well (42-10) is less than that used in the model submitted, then reevaluation is unnecessary. In either case, the alternate concentration limit (ACL) calculation will not change as it is not based on site contamination, but rather the potential for exposure to the chemical(s) of concern.

Based on GA EPD's review comments dated August 15, 1998, Fort Stewart will install a shallow monitoring well (42-10) in January 1999 as indicated on the enclosed figure. Semi-annual monitoring will also be conducted in January 1999, constituting the second sampling event at the site (NOTE: The first semi-annual sampling event was conducted in June 1998). The first Annual Summary Report for monitoring of the site and all future monitoring will be conducted in accordance with the enclosed Milestone Schedule.

If you have any questions or comments, please contact Ms. Melanie Little or Ms. Tressa Rutland, Directorate of Public Works, Environmental Branch, at (405) 364-8461 or (912) 767-7919, respectively.

Sincerely,

for 
Ovidio E. Perez
Colonel, U.S. Army
Director, Public Works

Enclosure



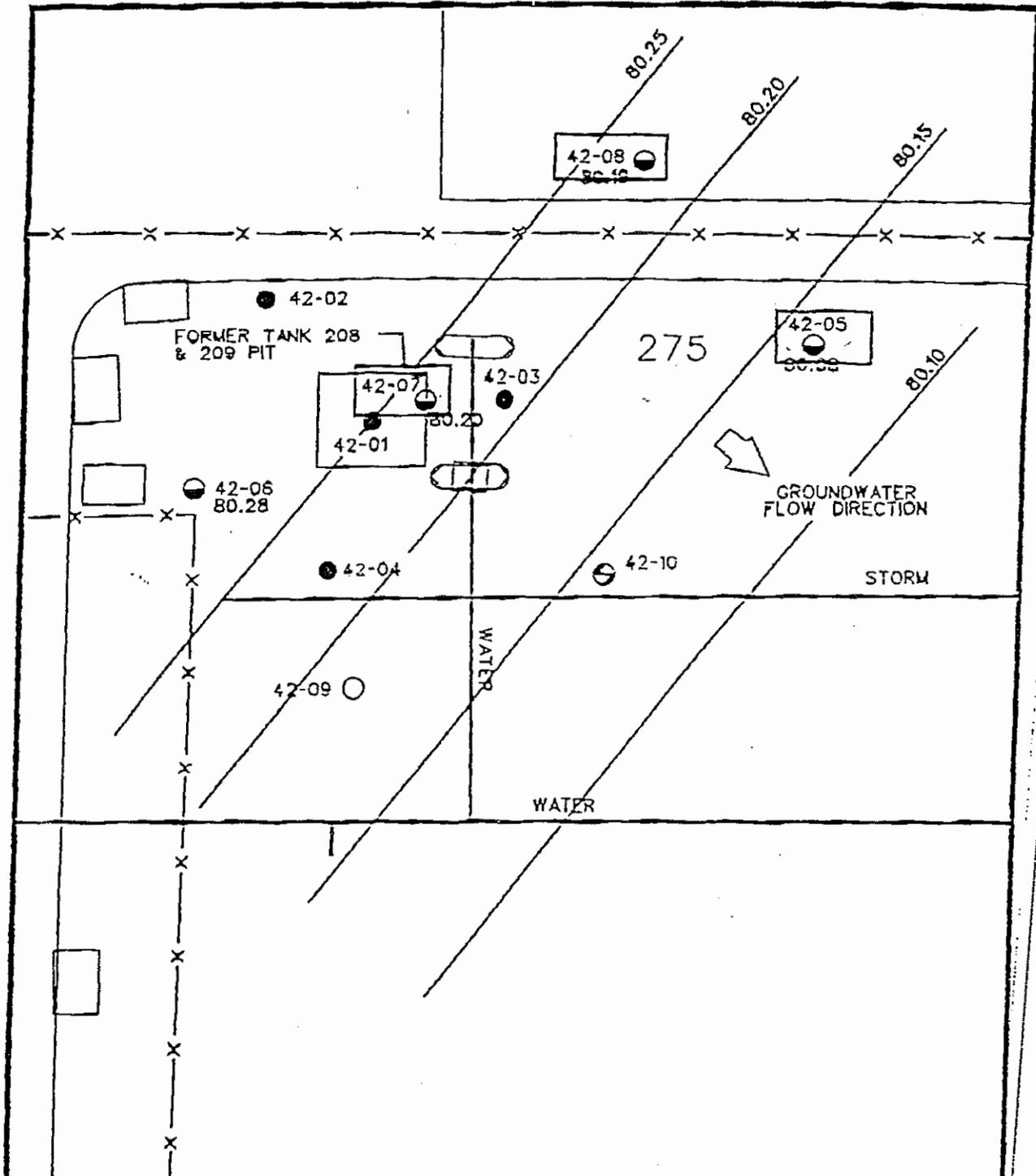
MILESTONE SCHEDULE

USTs #208 and #209, FACILITY ID. NO. 9089036

PROJECTED DATE*	EVENT
June 1998	Conducted 1st semi-annual sampling event in accordance with the CAP-Part B.
January 1999	Conduct 2d semi-annual sampling event in accordance with the CAP-Part B.
May 1999	Installation submits first annual monitoring report to GA EPD, USTMP.
July 1999	Conduct 3d semi-annual sampling event in accordance with the CAP-Part B.
January 2000	Conduct 4th semi-annual sampling event in accordance with the CAP-Part B.
May 2000	Installation submits second annual monitoring report to GA EPD, USTMP, with all existing data presented in the report (i.e., two years of monitoring). In addition, a recommendation will be made to either continue monitoring (i.e., semi-annually or annually) or request a "No Further Action Required" status for the site.

NOTE: * These dates are tentative and are based on a negotiated Contractor's schedule.





LEGEND

- CAP PART A SOIL BORING
- ◐ CAP PART B MONITORING WELL
- CAP PART B SOIL BORING
- ◑ PROPOSED CAP PART B MONITORING WELL




 U.S. ARMY ENGINEER DISTRICT
 CORPS OF ENGINEERS
 SAVANNAH, GEORGIA

USTs 208 AND 209
 SOUTH TRANSPORTATION
 GROUNDWATER POTENTIOMETRIC SURFACE

J. LAMB 0/09/08/58 95016/DGWS/884005NA.DGN



Georgia Department of Natural Resources

Environmental Protection Division
Underground Storage Tank Management Program
4244 International Parkway, Suite 104, Atlanta, Georgia 30354
Lonice C. Barrett, Commissioner
Harold F. Reheis, Director
(404)362-2687

August 15, 1998

Mr. John H. Spears
US Army/HQ3d Inf. Div. (Mech)
N: AFZP-DEV (Spears)
Building 1139
Ft. Stewart, GA 31314-5000

SUBJECT: Corrective Action Plan (CAP)-Part B:
Building 275 UST # ~~209~~ ²⁰⁸ & 209
Fort Stewart, GA; Liberty County
Facility ID: 9089036*1

Dear Mr. Spears:

This is to acknowledge your letter, dated April 20, 1998, that forwarded the subject CAP-Part B, for our review. The report was prepared by Science Applications International Corporation.

We have conducted a technical review of the CAP-Part B. The bases for this review are the CAP-Part A content requirements referenced in paragraph 391-3-15-.09 of the Georgia Rules for Underground Storage Tank Management (GUST Rules, revised 1995). Our comments on deficiencies are outlined in the enclosure. Please amend the CAP-Part B to correct these by September 15, 1998. Unless one of the outlined EPD Comments requests otherwise, you are required to only submit your responses to these comments as an Addendum to the original CAP-Part B. Complete submittal of the CAP-Part B is not necessary.

If you have any questions, please contact the undersigned at (404)362-2687.

Sincerely,



William E. Logan
Environmental Specialist
Corrective Action Unit

WEL;
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Enclosure - 1

cc: Patricia Stoll, Science Applications International Corporation
Lisa L. Lewis, EPD
File (CA): Liberty; 9089036

**** UST Upgrade Deadline - December 22, 1998 ****



EPD Comments

208
Building 275 UST # 209 & 209
Fort Stewart, GA; Liberty County
Facility ID: 9089036*1

August 15, 1998

1. Evaluation of potentiometric data and groundwater analytical results from the CAP A and CAP B SI's suggests that the downgradient limit of BTEX and PAH impact has not been delineated. The analytical control used to define the isopleth interpretations is located directly adjacent and slightly downgradient of the former tank location, and at locations northeast, north, and southwest of the former tanks. However, a large gap in well coverage exists to the east of the former tanks, in the direction interpreted to be downgradient, based on potentiometric contours. Little basis therefore exists for generating the isopleths included in the CAP B, and a minimum of one and preferably two water table monitoring wells should be installed in the downgradient region (east of the former tanks) to provide monitoring points.
2. Water levels in wells across the site range from approximately four to eight feet bgs. Please provide information on depths of water and sewer line trenches at the site, and evaluate whether the utilities serve as a preferential pathway for contamination from the tank release.
3. A vertical delineation monitoring well was not installed, since a soil sample collected from 27.5 to 30 ft bgs (sample 421107) did not contain BTEX or PAH constituents above GUST STLs. Because free product was observed in the tank excavation during closure (per Figure II-2 in the CAP A) a dually-cased vertical delineation well should be installed to the top of the lower confining unit (Hawthorn Group) for the surficial aquifer. The top of the Hawthorn Group occurs in the approximate depth range of 40 to 50 feet bgs.
4. Evaluation of risk-based corrective action recommendations based on the fate and transport model and ACL calculations cannot be performed until additional data is gathered regarding the subsurface conditions and contaminant distribution in the area downgradient of the former tanks.





DEPARTMENT OF THE ARMY
HEADQUARTERS, 3D INFANTRY DIVISION (MECHANIZED) AND FORT STEWART
Directorate of Public Works
1557 Frank Cochran Drive
Fort Stewart, Georgia 31314-4928

REPLY TO
ATTENTION OF

APR 20 1998

Director, Public Works

CERTIFIED MAIL

Z 426 191 483

Georgia Department of Natural Resources
Underground Storage Tank Management Program
Attention: Dr. Kenneth White
4244 International Parkway, Suite 104
Atlanta, Georgia 30354

Dear Dr. White:

Fort Stewart is pleased to submit the Corrective Action Plan (CAP)-Part B for former underground storage tanks #208 and #209 located at Building 275, Facility Identification Number 9089036, Fort Stewart, Georgia.

This site is located greater than 500 feet from a withdrawal point for a public water supply and the area is considered to be of average or higher groundwater pollution susceptibility. Therefore, soil threshold levels for these sites were taken from Georgia Department of Natural Resources Environmental Protection Division, Chapter 391-3-15, Table A, Column 2, and the Safe Drinking Water Act Maximum Contaminant Levels (MCLs) were used for comparison to groundwater analytical data.

The enclosed analytical data for the samples collected during the CAP-Part A and Part B investigations indicate that there is limited soil contamination above applicable GUST threshold levels. However, the contaminant concentrations are below risk-based screening levels that are protective of soil exposure during industrial land use. In addition, the former UST site is covered by 10 inches of concrete which prevents incidental contact with soil. Therefore, active remediation of soil is not recommended (see Section III.B.3).

Benzene contamination in groundwater was identified which exceeds MCLs. Thus, a risk-based approach was utilized to determine the need for further action at the site, an alternate cleanup level (ACL) was developed for benzene, and fate and transport modeling was conducted using AT123D in order to estimate groundwater contaminant transport over time. The



conservative fate and transport modeling used suggests that benzene will never exceed its MCL at downgradient locations. A graphic illustration of the benzene concentration in the surficial aquifer over time at various distances from the source area is presented in Appendix E. Thus, the Installation recommends that a semi-annual monitoring program be initiated which will assess the potential contaminant plume migration beyond the study area and will validate modeling assumptions. A recommended Milestone Schedule is enclosed, and will be initiated by the Installation unless otherwise directed by the Underground Storage Tank Management Program.

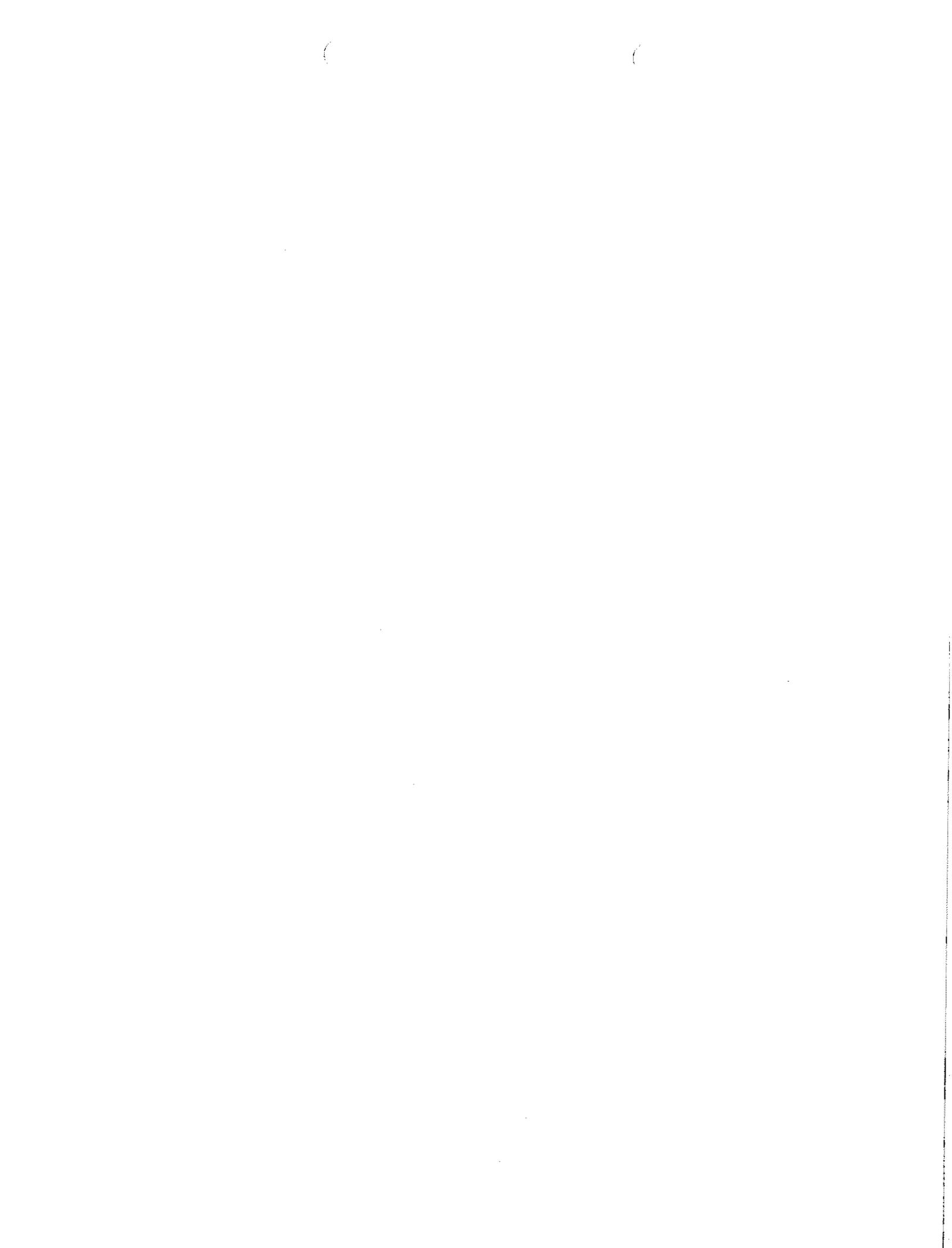
If you have any questions or comments, please contact Ms. Melanie Little or Ms. Tressa Rutland, Directorate of Public Works, Environmental Branch, at (580) 353-8165 or (912) 767-7919, respectively.

Sincerely,

for Dale F. Kiefer

Carey W. Brown
Lieutenant Colonel, U.S. Army
Director, Public Works

Enclosure



MILESTONE SCHEDULE

USTs #208 and #209, FACILITY ID. NO. 9089036

PROJECTED DATE*	EVENT
June 1998	Conduct 1st semi-annual sampling event in accordance with the CAP-Part B.
December 1998	Conduct 2d semi-annual sampling event in accordance with the CAP-Part B.
March 1999	Installation submits first annual monitoring report to GA EPD, USTMP.
June 1999	Conduct 3d semi-annual sampling event in accordance with the CAP-Part B.
December 1999	Conduct 4th semi-annual sampling event in accordance with the CAP-Part B.
March 2000	Installation submits second annual monitoring report to GA EPD, USTMP, with all existing data presented in the report (i.e., two years of monitoring). In addition, a recommendation will be made to either continue monitoring (i.e., semi-annually or annually) or request a "No Further Action Required" status for the site.

NOTE: * These dates are tentative and are based on a negotiated Contractor's schedule.



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FINAL

**CORRECTIVE ACTION PLAN (CAP)
PART B
UNDERGROUND STORAGE TANKS 208 and 209
FACILITY ID: 9-089036
FORT STEWART, GEORGIA**

Prepared for:
U.S. Army Corps of Engineers
Savannah District
Under Contract Number DACA21-95-D-0022
Delivery Order No. 0016

Prepared by:
SCIENCE APPLICATIONS INTERNATIONAL CORPORATION
800 Oak Ridge Turnpike
Oak Ridge, Tennessee 37830

April 1998



III.B.4.(b) Fate and transport model

The AT123D model was used to determine the impact of dissolved hydrocarbons on potential receptors. The Sesoil model was used in conjunction with the AT123D model to determine the impact of leachate on potential receptors from contaminated soil at the tank pit site. No actual current receptors have been identified at this site; therefore, the potential for exposure at Peacock Creek is located 7500 feet downgradient from the former UST and defined as the model distance for hydrocarbon migration. Vertical migration of the contaminant plume through the thick and highly effective confining unit to the Principal Artesian aquifer is improbable. The confining unit has a vertical hydraulic conductivity on the order of 10^{-8} cm/sec and ranges from 15- to 90-feet thick thus it would take over 1450 years for the contamination to migrate through the confining layer. The surficial aquifer where the contaminant plume is located is not used as a drinking water supply.

The assumptions, input and output for the models are provided in Appendix E. Using benzene as the model compound, the contaminant plume will extend up to 165 feet from the source once steady state is achieved. The concentration of benzene at this time will be less than any detection limit.

III.B.4.(c) Conclusions and recommendations

The following conclusions are based on a review of the Part A SI and Part B SI results using a risk-based approach:

- Risk-based screening results show that benzene is the only compound exceeding initial risk-based screening levels. Using a site-specific scenario of an industrial worker exposure, benzene concentrations do not exceed the ACL of 990 $\mu\text{g/L}$.
- The receptor survey indicates present hydrocarbon contamination does not impact drinking water supplies.
- Fate and transport modeling indicates that contamination will never exceed MCLs at a conservatively defined downgradient receptor.

Considering the site characteristics, natural attenuation will provide the best corrective action for this site. A monitoring program is recommended to confirm modeling predictions. Detailed sampling and analysis recommendations are provided in Section III.D.

III.C. DESIGN AND OPERATION OF CORRECTIVE ACTION SYSTEMS

III.C.1. System Effectiveness/Basis For Selection

The selected corrective action approach, natural attenuation, was chosen following evaluation of numerous established and innovative active and passive remediation alternatives. A three-step screening process was used to select the preferred remedy for the USTs 208 and 209 Site. This alternative selection process is illustrated in Figure III-2.





REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS, 3D INFANTRY DIVISION (MECHANIZED) AND FORT STEWART
FORT STEWART, GEORGIA 31314

August 22, 1997

Directorate of Public Works

CERTIFIED MAIL

Georgia Department of Natural Resources
Environmental Protection Division
Underground Storage Tank Management Program
Attention: Dr. Kenneth F. White, Environmental Specialist
4244 International Parkway, Suite 104
Savannah, Georgia 30354

Dear Dr. White,

Fort Stewart is pleased to receive the Georgia Environmental Protection Division's July 23, 1997 correspondence approving the Corrective Action Plan (CAP)-Part A for Fort Stewart's former Underground Storage Tanks #208 and #209, Building 275, Facility Identification Number 9089036. Implementation of the plan began in July 1997 with installation of the permanent monitoring wells, collecting of soil samples and groundwater samples. As of August 15th all field work had been completed in accordance with the approved CAP-Part A.

As requested, a milestone schedule is provided. However, the dates are tentative until negotiations for the Long Term Monitoring (LTM) Contract are finalized.

In addition, the comments received on the CAP-Part A are addressed as follows:



Comment No.	GA USTMP Comment	Response to Comment
1	<p>The CAP-Part A was not sufficient to detect free product at the site since the groundwater sample in the worst case area (tank pit) was collected with a PowerPunch sampler. Please install the propose monitoring wells with an equal portion of the screen above and below the water table. This will allow detection of free product, if it exists.</p>	<p>Wells were installed 13-23 July. The temporary wells installed during the CAP-Part A were capable of detecting the existence of free product as discussed with GA EPD during the 13 and 14 August. The permanent monitoring wells were also installed in accordance with the Corps of Engineer approved Workplan and EM 1110-1-4000 (provided to GA EPD during visit) and the wells are capable of detecting free product.</p>

Site N 9/10

If you have any questions or comments regarding this matter, please contact Melanie Little, Directorate of Public Works, Environmental Branch, at (912) 767-2010.

for *Dale J. Kiefer*
 Carey W. Brown
 Lieutenant Colonel, U.S. Army
 Director, Public Works

Enclosures



**MILESTONE SCHEDULE
BUILDING 275, USTs 208 and 209
FACILITY ID NO. : 9-089036**

PROJECTED DATE	EVENT
July-August 1997	Implement CAP-Part B SIP (Field Work)
October 1997	Installation receives Draft CAP-Part B for review
December 1997	Installation submits Final CAP-Part B to GA EPD
February 1998	Conduct Quarterly Monitoring *
May 1998	Conduct Quarterly Monitoring
August 1998	Conduct Quarterly Monitoring
November 1998	Conduct Quarterly Monitoring **

NOTE: These dates are tentative and are based on a negotiated Contractor' s schedule.

* If the CAP-Part B recommends any other course of action (i.e., other than quarterly LTM) a revised milestone schedule will be submitted with the Final CAP-Part B.

** Based on the results from the 1998 quarterly monitoring, a recommendation will be made in the 1998 Annual Summary Report regarding the necessity for continued monitoring (to include recommendations regarding the monitoring frequency, and constituents to be analyzed if warranted). Coordination will be made with GA EPD to ensure that all parties are in agreement.



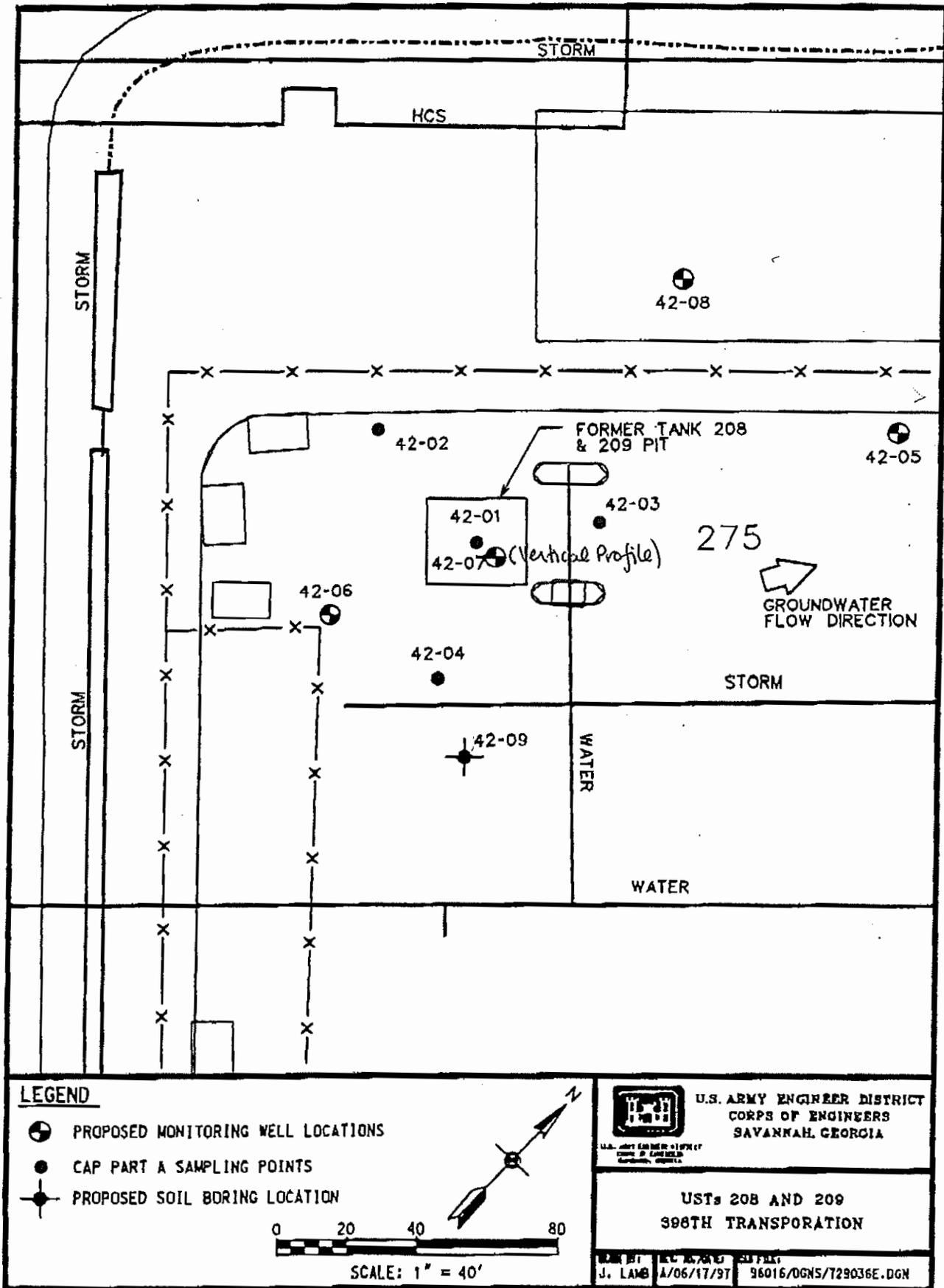


Figure A-5. Proposed Sampling Locations at USTs 208 and 209.



Georgia Department of Natural Resources

Environmental Protection Division
Underground Storage Tank Management Program
4244 International Parkway, Suite 104, Atlanta, Georgia 30354
Lonice C. Barrett, Commissioner
Harold F. Reheis, Director
(404)362-2687

July 23, 1997

Mr. John H. Spears
U.S. Army/HQ 3d Inf. Div. (Mech)
Attn: AFXP-DEV (Spears)
Building 1139
Fort Stewart, Georgia 31314-5000

SUBJECT: Notice to Implement Corrective Action Plan (CAP):
Building 275 Area, USTs 208 & 209 Site
Bultman Avenue East of E. 1st Street
Fort Stewart, GA; Liberty County
Facility ID: 9089036

Dear Mr Spears:

This is to acknowledge your consultant's letter, dated March 31, 1997, that forwarded a properly certified CAP-Part A for our review.

The technical proposal, contained in Sections 1. through 4. of the CAP-Part A for proposed investigative and/or remedial actions for contaminated media resulting from the referenced release at the subject location is hereby approved by the Environmental Protection Division with the attached EPD comments. As a result of your CAP-Part A being technically approved, you are authorized to begin implementation of this plan.

Please submit an updated milestone schedule by August 23, 1997, listing specific dates, events and a timetable to complete the proposed activities. If you have any technical questions, please contact me at (404)362-2687.

Sincerely,


Kenneth F. White, Ph.D.
Environmental Specialist
Corrective Action Unit

Enclosure

cc: Lisa L. Lewis, GA EPD
Patricia Stoll; SAIC
File (CA): Liberty; 9089036



EPD Comments

**Corrective Action Plan CAP-Part A:
Building 275 Area, USTs 208 & 209 Site
Bultman Avenue East of E. 1st Street
Fort Stewart, GA; Liberty County
Facility ID: 9089036**

July 23, 1997

1. The CAP-Part A investigation was not sufficient to detect free product at the site since the groundwater sample in the worst case area (the tank pit) was collected with a PowerPunch sampler. Please install the proposed monitoring wells with an equal portion of the screen above and below the water table. This will allow detection of free product if it exists.



file



DEPARTMENT OF THE ARMY
HEADQUARTERS, 3D INFANTRY DIVISION (MECHANIZED) AND FORT STEWART
FORT STEWART, GEORGIA 31314

REPLY TO
ATTENTION OF

March 31, 1997

Director, Public Works

CERTIFIED MAIL

Georgia Department of Natural Resources
Underground Storage Tank Management Program
Attention: Debbie McClanhan
4244 International Parkway, Suite 104
Atlanta, Georgia 30354

Dear Ms. McClanhan:

Enclosed are the Final Corrective Action Plans (CAPs)-Part A for the following former underground storage tanks located at Fort Stewart, Georgia:

<u>Facility Id. No.</u>	<u>Tank No(s).</u>
9-089068	11 & 12
9-089077	95, 96, & 97
9-089075	90 & 91
9-089028	30 through 35
9-089036	208 & 209

These reports were prepared by Science Application International Corporation, under contract with the Savannah District Corps of Engineers.

A CAP-Part B will be initiated upon approval of the enclosed CAP-Part A. If approval is not received by June 15, 1997, a CAP-Part B will be initiated immediately upon availability of funding.

In addition, a Closure Report for facility identification number 9-025111, Tank 115, located at Hunter Army Airfield is enclosed. This site is a clean closure and no further action is required.



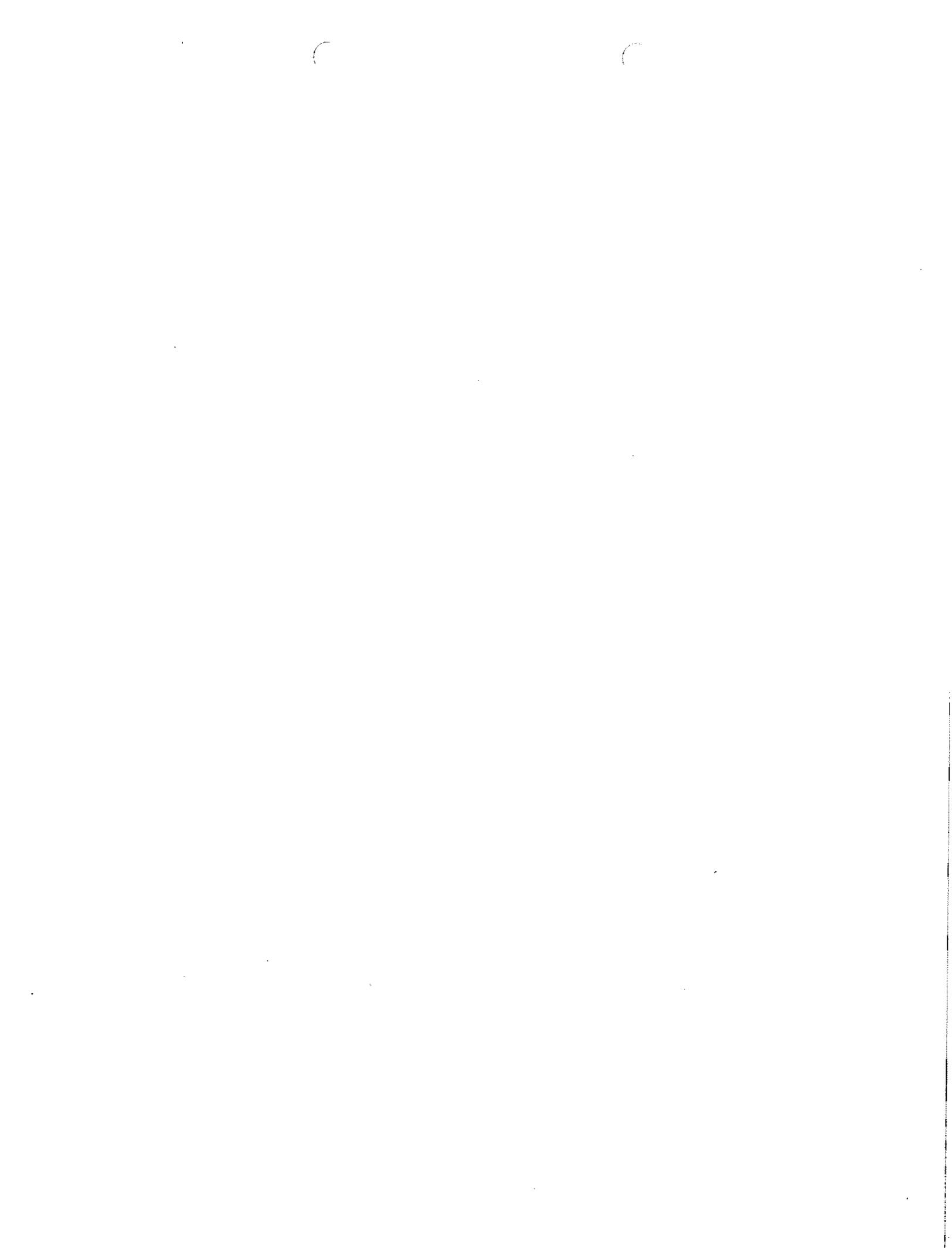
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If you have any questions or comments, please contact Melanie Little, this directorate, at (912) 767-1234.

Sincerely,

for *Wale F. Kiefer*
Carey W. Brown
Lieutenant Colonel, U.S. Army
Director, Public Works

Enclosures



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FORT STEWART \
032509 \ FST090036

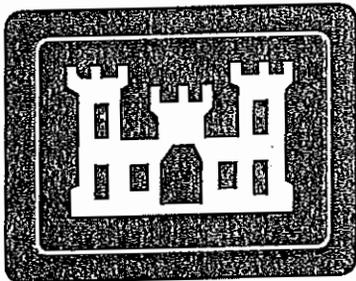
FINAL

CORRECTIVE ACTION PLAN - PART A REPORT

FOR

**Facility ID #9-089036
Underground Storage Tanks 208 & 209
At
Building 275
Fort Stewart, Georgia**

PREPARED FOR



**U.S. ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT**

**CONTRACT No. DACA21-95-D-0022
DELIVERY ORDER 0003**

March 1997





D.5.c Hydraulic Gradient

The hydraulic gradient for Facility ID #9-089036 was calculated using groundwater elevations measured in the boreholes located outside of the tank pit, as these boreholes represent native undisturbed soil. The groundwater flow direction was determined and the hydraulic gradient was computed along the direction of flow. The hydraulic gradient at Facility ID #9-089036 is estimated to be 0.002 feet/feet.

D.5.d Total Organic Carbon (Optional)

Alternate Threshold Levels (ATLs) are not planned to be calculated for contaminated soils located at the site. Therefore, analysis of total organic carbon was not conducted as part of the site investigation.

D.5.e Grain-Size Distribution

ATLs are not planned to be calculated for contaminated soils located at the site. Therefore, analysis of grain-size distribution was not conducted as part of the site investigation.

D.5.f Total Petroleum Hydrocarbons (Optional)

ATLs are not planned to be calculated for contaminated soils located at the site. However, analysis of TPH was included as part of the site investigation in order to provide additional data for use in determining the extent of soil contamination.

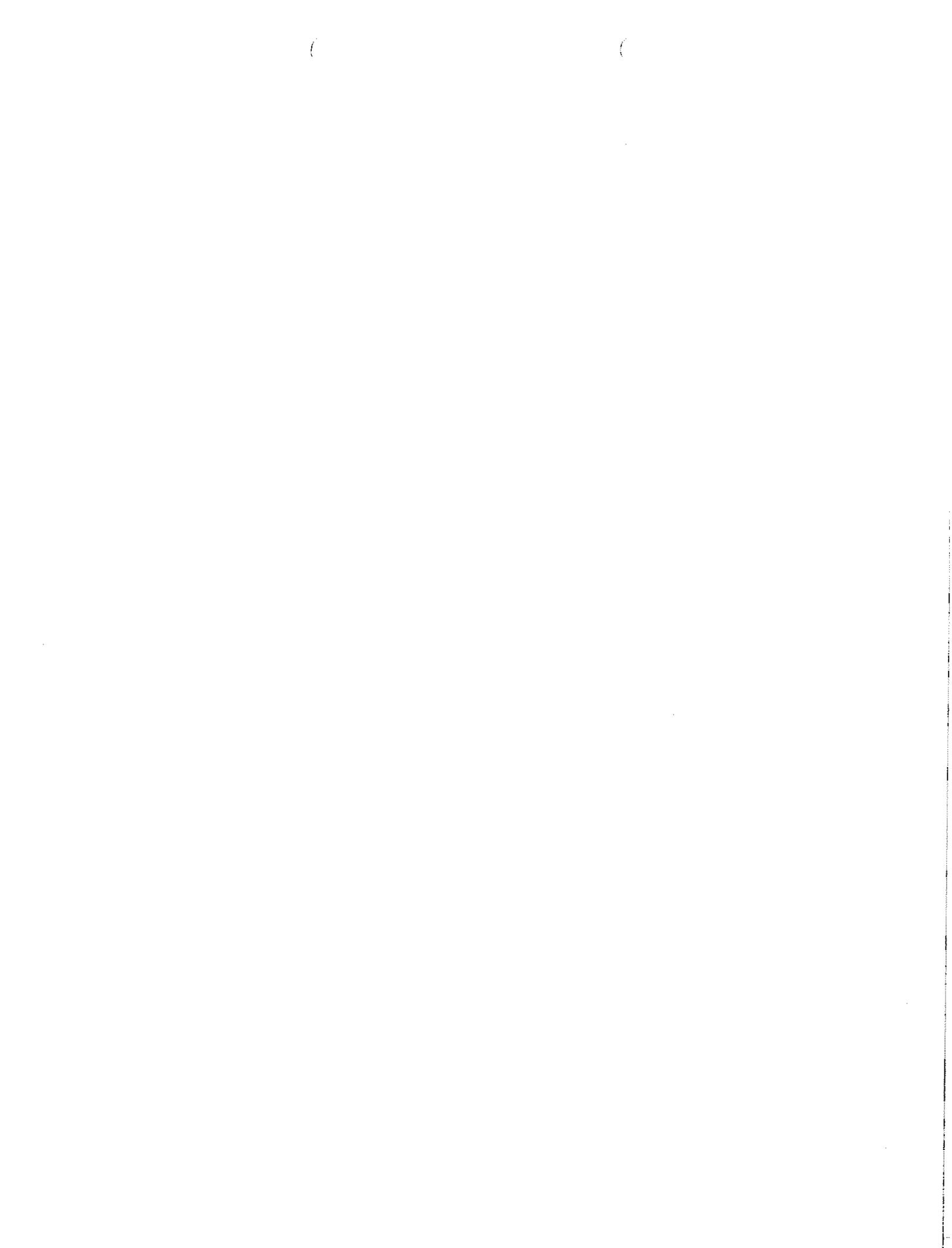
D.6 Corrective Action Completed or In-Progress

D.6.a USTs Removed

The UST system, tank and ancillary piping, was removed from service in August 1994, and was subsequently excavated and removed on April 11, 1995. According to Fort Stewart DPW personnel, the UST system was closed in accordance with guidance document GUST-9 *So You Want to Close an UST*, revised August 1995.

D.6.b Excavation and Treatment/Disposal of Backfill and Native Soils

The backfill material excavated during the removal of the USTs was disposed of at KEDESH, Inc., an asphalt treatment plant, located on Highway 17N in Kingsland, Georgia. No overexcavation of native soil surrounding the tank pit was conducted during the tank removal operation. The excavation was backfilled with clean soil material upon completion of the removal activities.



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investigation of the USTs 208 and 209 site, Facility ID #9-089036, is required. The Site Investigation Plan is presented in Section III.

As required by GDNR Underground Storage Tank Management Program, a CAP-Part B report should be prepared to document the additional investigation results and remedial actions to be performed at the USTs 208 and 209 site, Facility ID #9-089036.

D.8 Site Ranking

The Environmental Sensitivity Score for the USTs 208 and 209 site, Facility ID #9-089036, was determined by completing the Site Ranking Form presented in Appendix II of the GUST-7A CAP-Part A guidance document. The result of the Site Ranking Form calculation indicates that the Environmental Sensitivity Score for the site is 2,250. A copy of the completed Site Ranking Form is presented in Appendix E of this report.

