
**REMEDIAL DESIGN INVESTIGATION REPORT,
REVTMENTS 14, 19, 21, 22, 25, AND 26
HAMILTON ARMY AIRFIELD
NOVATO, CALIFORNIA**



Final

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of Engineers ®**

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Prepared for:



**Department
Of the Army**

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EXECUTIVE SUMMARY

This report summarizes the results of the April - May 2005 soil sampling and analysis that was completed as part of the remedial investigation (RI) at Revetments 14, 19, 21, 22, 25, and 26 at the former Hamilton Army Airfield (HAAF), Novato, California. The purpose of this RI is to determine the vertical and horizontal extent of the known petroleum hydrocarbon, metal and polynuclear aromatic hydrocarbon contamination in the soil, including aggregate base course beneath the six previously mentioned revetments.

Soil samples were collected from six revetments on 21-22 and 26-27 April and 4 and 6 May 2005. The samples were analyzed for specific contaminants of concern (COCs) that had been identified for each revetment. The total list of COCs included total petroleum hydrocarbons (gasoline, JP-4, diesel, and motor oil), metals (barium, boron, cadmium, copper, lead, manganese, and vanadium), and total polynuclear aromatic hydrocarbons.

Groundwater was not encountered during this investigation.

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LIST OF ACRONYMS

bgs	below ground surface
BRAC	Base Realignment and Closure
CDQMP	Contractor Data Quality Management Plan
COC	Contaminant of Concern
DQO	Data Quality Objectives
EPA	(United States) Environmental Protection Agency
HAAF	Hamilton Army Airfield
IDW	Investigation-Derived Waste
JP-4	Jet propellant 4
PAH	Polynuclear aromatic hydrocarbon
QA	Quality assurance
QC	Quality control
ROD/RAP	Record of Decision/Remedial Action Plan
RWQCB	Regional Water Quality Control Board
TPH	Total petroleum hydrocarbons

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1.0 INTRODUCTION

This report summarizes the soil sampling results at Revetments 14, 19, 21, 22, 25, and 26 at the Hamilton Army Airfield (HAAF), Novato, California for the Remedial Investigation. Soil samples were collected from the six revetments on 21, 22, 26, and 27 April and 4 and 6 May 2005.

These revetments were concrete paved locations where aircraft were parked. These revetments had been sampled back in 1999 by coring through the concrete at each and by collecting samples from around the perimeter of the concrete pads. The Hamilton Wetland Restoration Project removed the concrete pavement from six revetments and the Army BRAC program is now characterizing the soils that lay beneath them. The objective of this remedial investigation is to determine the vertical and horizontal extent of contamination at each of the six revetments. The samples were analyzed for specific COCs at each revetment. The COCs included total petroleum hydrocarbons (gasoline, JP-4, diesel, and motor oil), metals (barium, boron, cadmium, copper, lead, manganese, and vanadium), and/or total polynuclear aromatic hydrocarbons.

Groundwater was not encountered during this investigation.

A site map is shown in Figure 1. A revetment location map is shown in Figure 2.

Sampling consisted of the following tasks:

- Initial sample locations were selected based on the sample results of previous soil samples analyzed through and at the perimeter of each revetment. The initial sample locations for each revetment were based on the locations of previous samples that were collected by coring through the concrete revetment pads. The new sample locations consisted of a center sample and four samples that were stepped out in the north, south, east and west directions. The distance of the step outs was planned to be 10 feet but was modified based on observations of the soils at each revetment location. The initial step out distances were increased where visual inspection

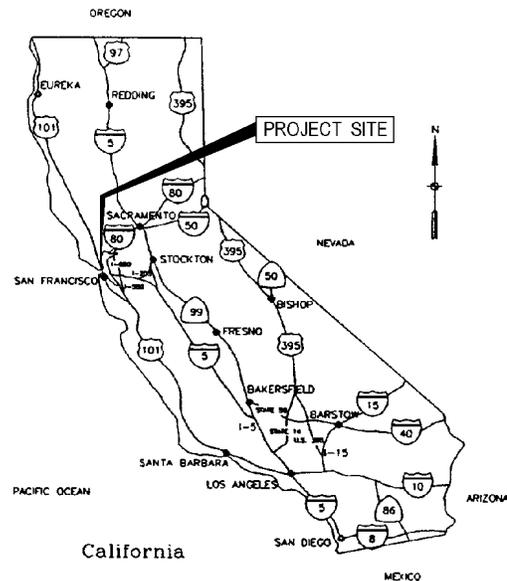


Figure 1: Site Location Map

**REMEDIAL DESIGN INVESTIGATION REPORT,
REVETMENTS 14, 19, 21, 22, 25, AND 26
HAMILTON ARMY AIRFIELD
NOVATO, CALIFORNIA**

indicated contaminated soils existed. See Figures 3 through 8 for the sample locations.

- Additional sample locations were selected based on the analytical results of the initial sample results. If the analytical results exceeded any of the Inboard Action Goals for the specific constituents of concern at the revetment, additional samples would be collected. These additional samples include stepping out an additional 5-feet from the center sample location and an additional sample at a greater depth of the “hot” sample.

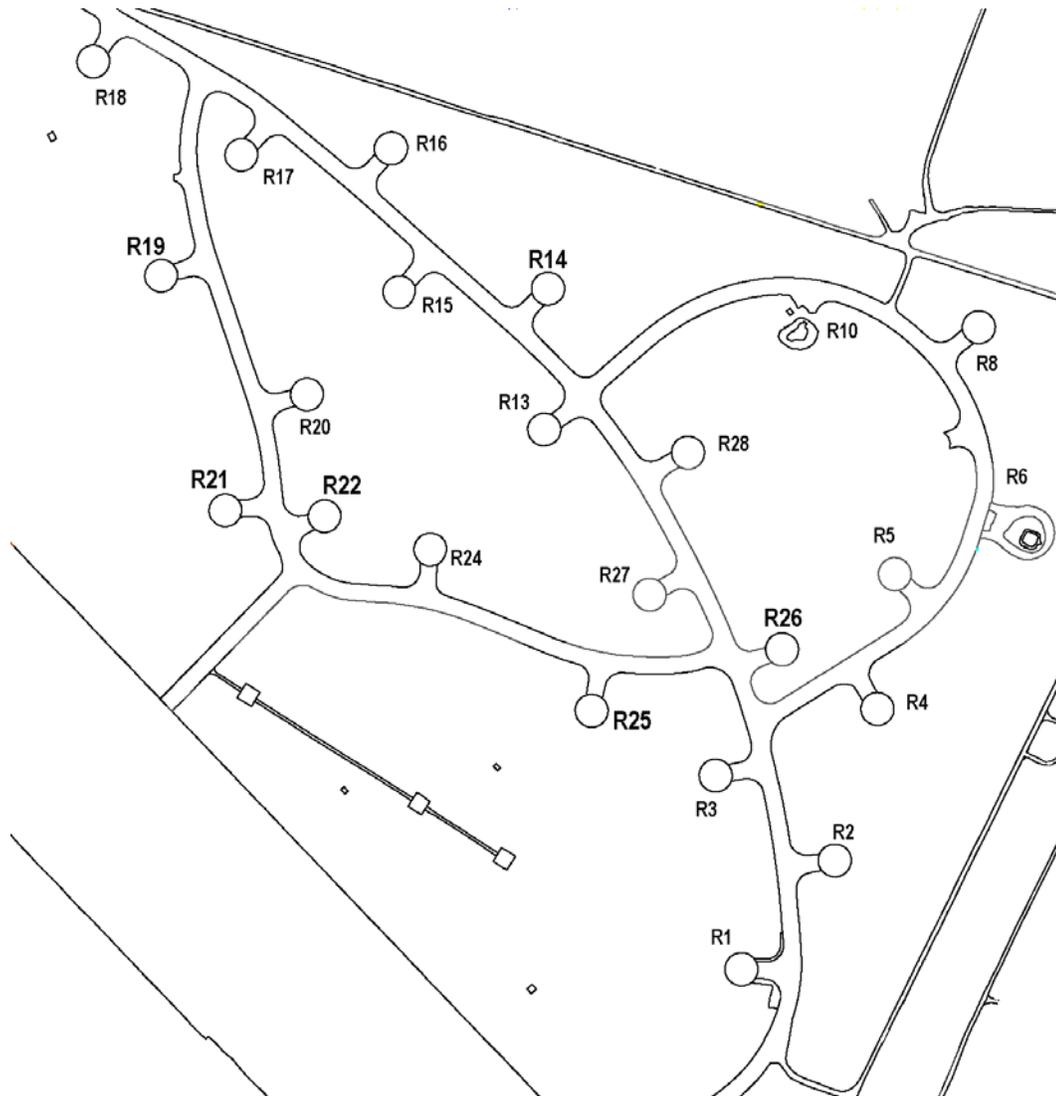
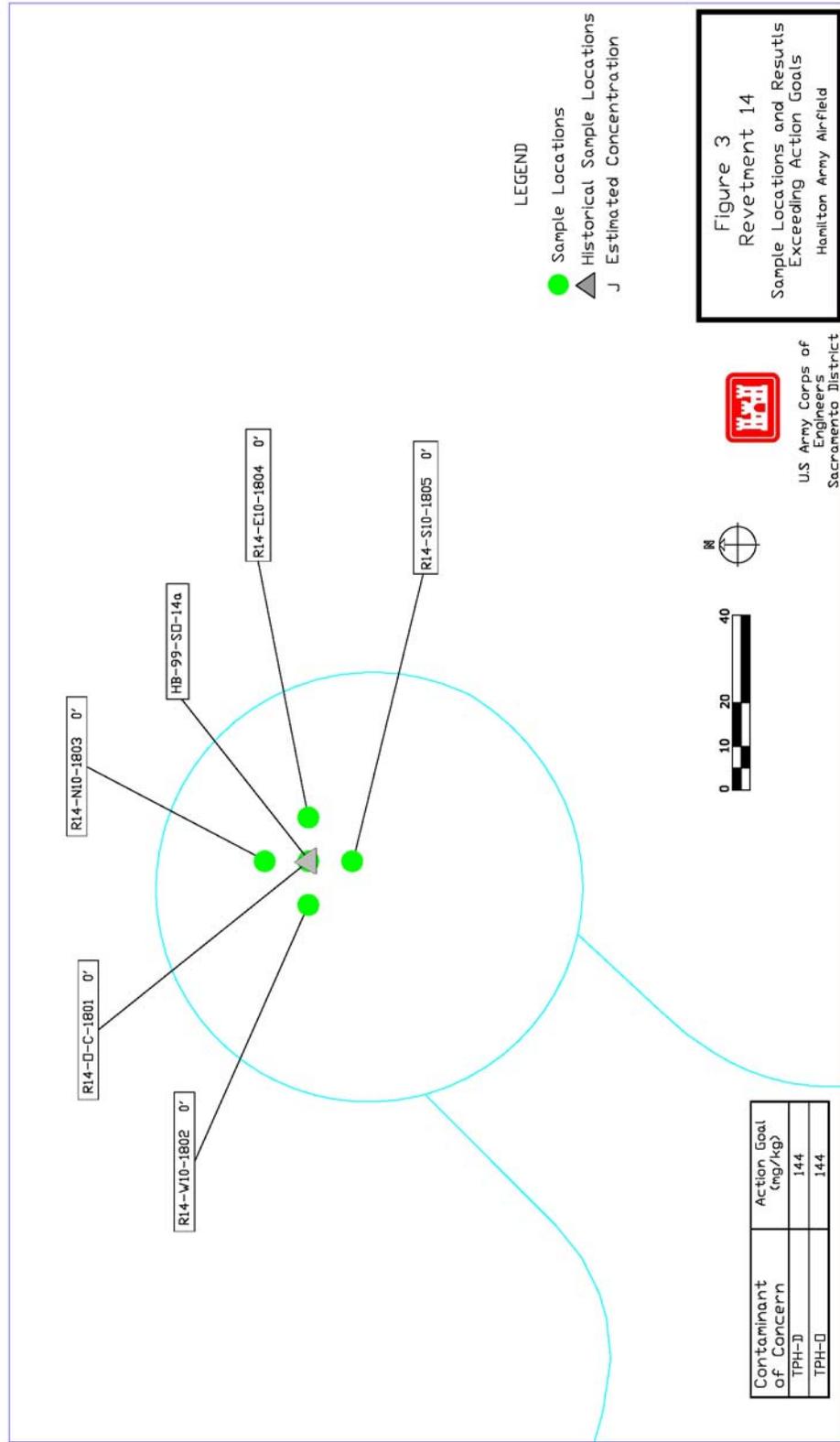
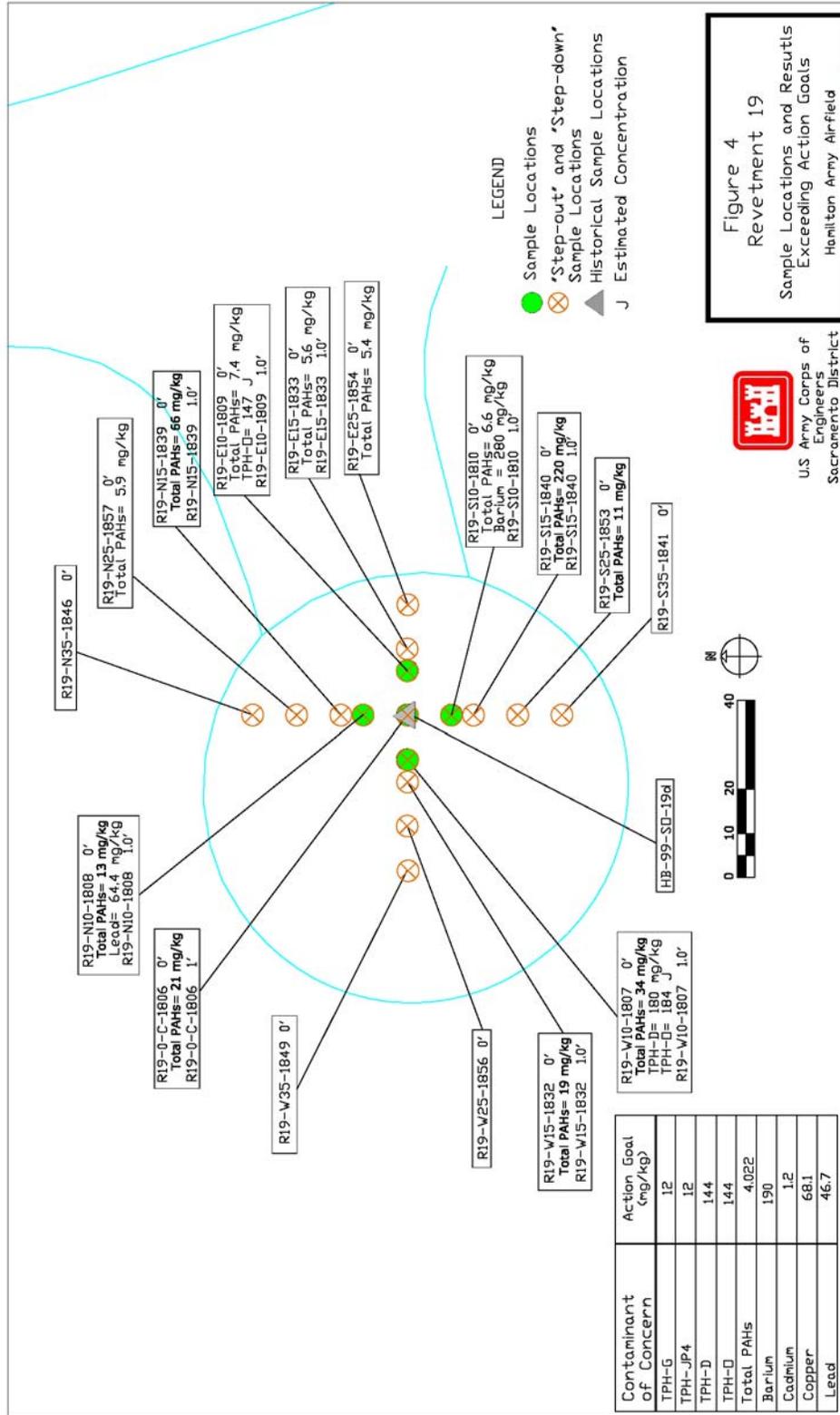
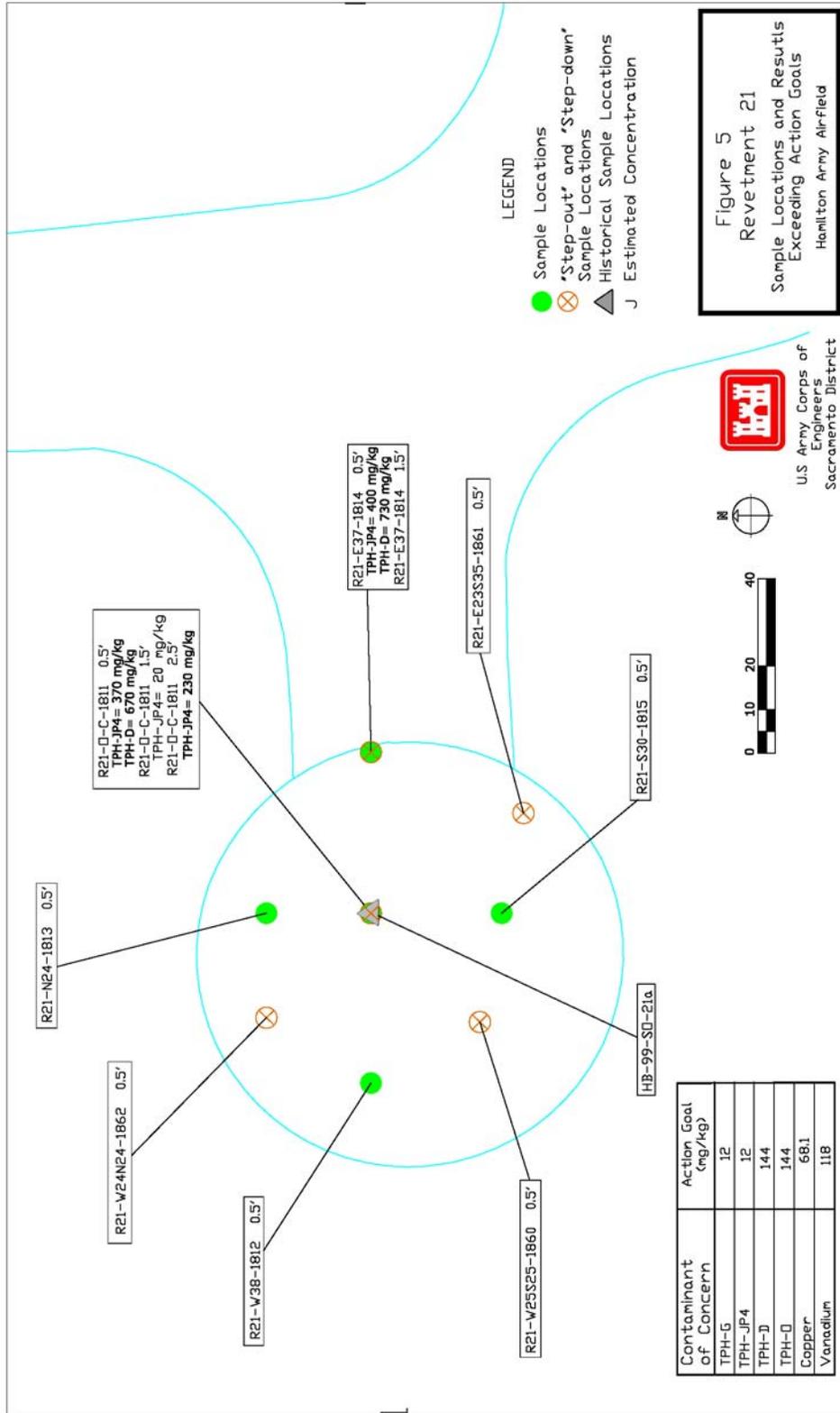


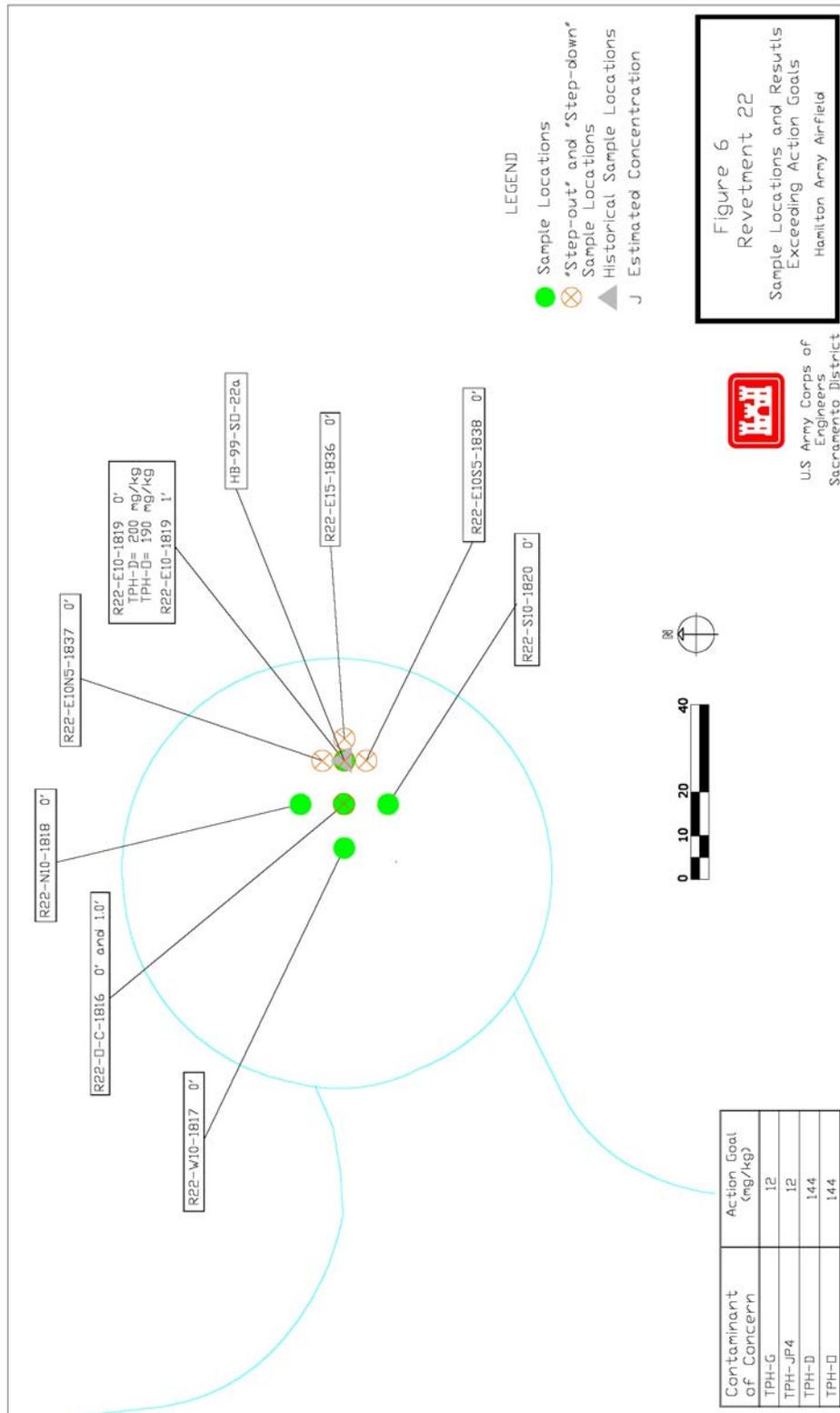
Figure 2: Revetment Location Map

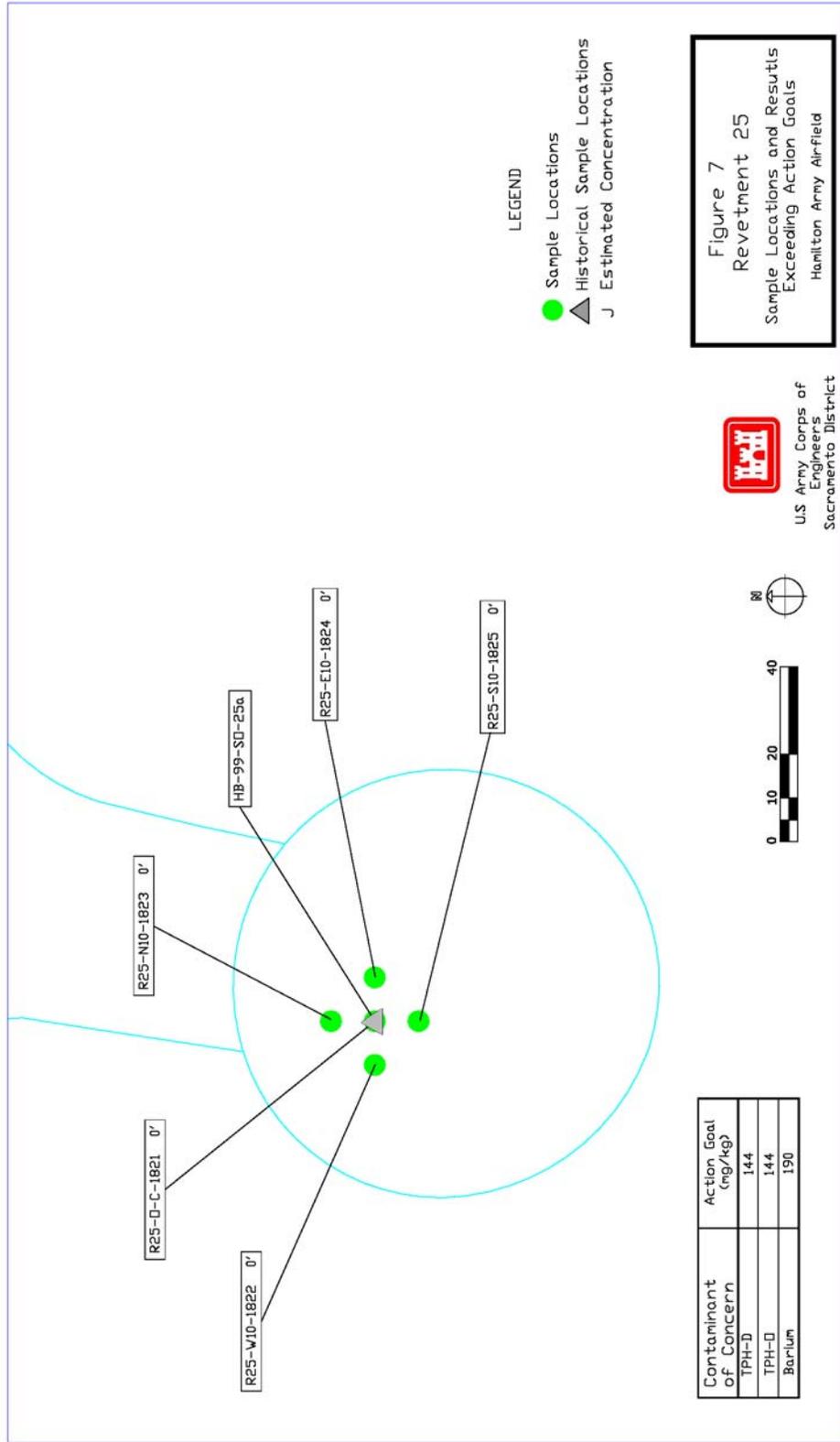
The soil sampling was performed in accordance with the *Work Plan, Pre-remedial Investigation Sampling, Revetment Area #'s 14, 19, 21, 22, 25 and 26, Hamilton Army Airfield, Novato, California* prepared by the US Army Corps of Engineers, Sacramento District, dated February 2005

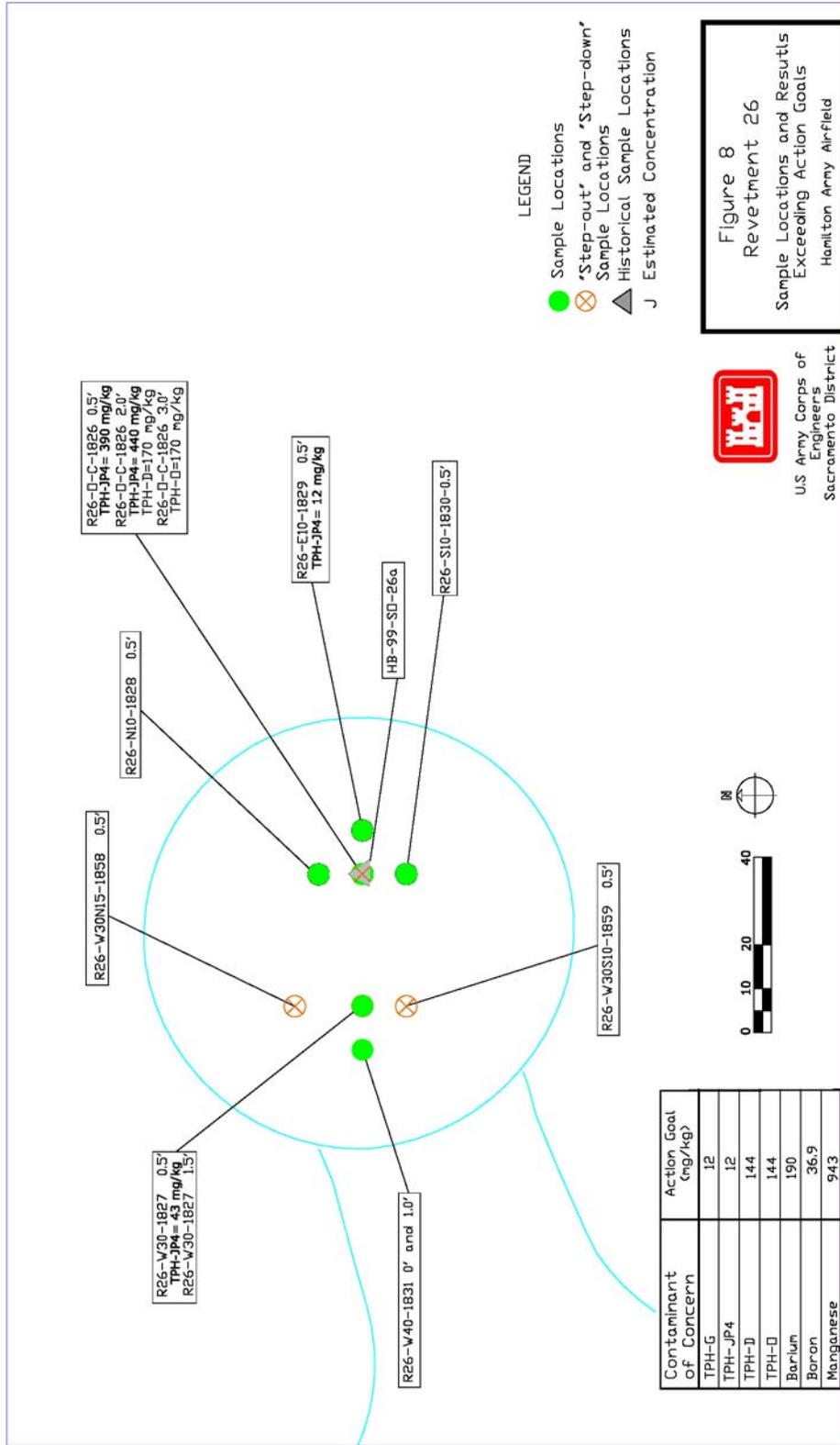












2.0 FIELD SAMPLING PROCEDURES

2.1 Soil Sample Collection Procedures

Soil samples were collected from revetments 14, 19, 21, 22, 25, and 26 at the former airfield area. Samples were collected by hand using a stainless steel shovel and/or stainless steel trowel. Sample soil was placed in a sample jar and/or EnCore capsule and immediately sealed. All sample jars were labeled, and placed in a cooler with ice at 4 ± 2 degrees Celsius. Each cooler included a temperature blank. To meet analytical holding times, U.S Army Corps of Engineers (USACE) field personnel shipped (via Fed Ex) all samples to the laboratory at the end of each day.

2.2 Decontamination Procedures

Sampling equipment used in the collection of soil samples at the revetments was decontaminated prior to use according to the procedures detailed in the Work Plan. Excess soil on each tool was removed using paper towels prior to usingalconox detergent and distilled water rinse.

2.3 Investigation-Derived Waste

A very small amount of investigation-derived waste (IDW) was generated during the soil sampling event from decontamination procedures. IDW consisted ofalconox detergent and distilled water for rinsing.

3.0 ANALYTICAL RESULTS

A listing of all data for this field effort is presented in Appendix A of this document. Appropriate qualifiers have been included to indicate any limitation on the usability of the data. Bolded values are greater than the Hamilton Main Airfield Parcel Record of Decision/Remedial Action Plan (ROD/RAP) action goals; shaded values are non-detected results where the reporting limits are greater than the action goal. Total PAHs were calculated from individual analyte concentrations reported by the laboratory. Only detections were summed; where no individual analytes that make up one of the above “Totals” were detected, the totals were reported as “Not Detected” (ND).

3.1 Analytical Results Discussion

Results for this project are discussed by individual revetment area in this section. The results of each analysis were compared to the ROD/RAP Inboard Action Goals. The evaluation criteria are listed in Table 3-1.

Table 3-1 Evaluation Criteria

Contaminant	Evaluation Criteria (mg/kg)	Source
<i>Metals</i>		
Barium	190	Site Specific Sediment Ambient
Boron	36.9	Site Specific Sediment Ambient
Cadmium	1.2	Site Specific Sediment Ambient
Copper	68.1	Site Specific Sediment Ambient
Lead	46.7	ER-L
Manganese	943	Site Specific Sediment Ambient
Vanadium	118	Site Specific Sediment Ambient
<i>Semi-volatile Organic Compounds</i>		
Total PAHs	4.022	HHERA – Marine Invertebrate
<i>Petroleum Hydrocarbons</i>		
Gasoline/JP-4	12	Presidio – SEPZ
Diesel/Motor Oil	144	Presidio – SEPZ

HHERA – US Army with IT Corp and CH2M Hill, *Final Human Health and Ecological Risk Assessment, BRAC Property, Hamilton Army Airfield*, Table A-5, High Marsh Comparator
 ERL – Effects Range-Lows
 PQL – Practical Quantitation Limits

3.1.1 Revetment 14

A table of results with associated evaluation criteria is presented in Table A-1 of Appendix A. Previous sampling at Revetment 14 indicated TPH concentrations in the diesel/oil range existed in the surface soils. The sampling at Revetment 14 centers on the previous sample HB-99-SO-14a, where TPH concentrations marginally exceeded the actions goals.

TPH: A total of five surface samples were analyzed for TPH-D and –O. One center location and four locations stepped out from the center 10 feet in four directions (N, S, E, W) revealed

low levels of diesel and oil. All five samples had average diesel and oil concentrations approximately 15 mg/kg, well below the action goal criteria.

3.1.2 Revetment 19

A table of results with associated evaluation criteria is presented in Table A-2 of Appendix A. At Revetment 19 there were exceedence of PAHs, TPH and metals (particularly barium and lead) at previous perimeter (HB-99-SO-19a, -19b, and -19c) and center (HB-99-SO-19d) sample locations. Perimeter sample -19a had total PAH concentrations that were found above the action goal criteria at the surface. The highest TPH contamination was found at the center location -19d. At this revetment, samples were initially collected at the previous center and step outs 10 feet to the north, south, east and west.

PAHs: A total of 26 samples were analyzed for total PAHs including step-outs from the center sample location at 10-feet, 15-feet, 25-feet, and 35-feet. Samples were also collected at the one-foot depth. The results revealed that the highest concentrations resided in the surface soils. Total PAH concentrations in the surface soils ranged from 0.029 to 220 mg/kg. PAH concentrations decreased at the one-foot depth and were all below the action goal criteria. A duplicate sample was collected at -N25-1855-0 and produced variable results.

TPH: A total of 14 samples were analyzed for diesel/oil and/or gasoline/JP-4 including two step-out samples in the east and west directions at 15-feet. Samples located 10-feet from the center were also stepped-down to the one-foot depth. TPH in the diesel and oil range marginally exceeded the action goal criteria for two surface samples (-W10-1807 and -E10-1809). The TPH-D/O concentrations in the one-foot samples and the in the 15 foot step out surface samples were below the action goal criteria.

Metals: Samples collected at the surface and at the one-foot depth were analyzed for barium, cadmium, copper and lead. The center and 10-feet step-out samples revealed metals concentrations, for the most part, below the respective action goal criteria. Barium and lead maximums exceeded the criteria for two surface samples (-N10-1808 and -S10-1810), respectively. The average barium and lead concentrations are well below the action goals, 130 mg/kg versus 190 mg/kg and 23 mg/kg versus 46.7 mg/kg, respectfully. These exceedances are considered marginal.

3.1.3 Revetment 21

A table of results with associated evaluation criteria is presented in Table A-3 of Appendix A. At Revetment 21 this sampling focused on widespread TPH contamination existing at the surface and possible increasing concentrations at deeper depths. Center sample, HB-99-SO-21a, results indicated high levels of petroleum in the JP-4 and diesel range. Heavy metals above the action goal criteria, particularly copper and vanadium, were also found at this same

sample location and were included as part of this sampling regime. At this revetment, samples were initially collected at the previous center and step outs at 24 feet to the north, 30 feet to the south, 37 feet to the east and 38 feet to the west. This was based on visual observations of stained soils.

TPH: Petroleum hydrocarbons in the JP-4 range were found in four out of 13 samples analyzed. JP-4 range hydrocarbons were highest (370 mg/kg) at the center sample (-O-C-1811) at the surface with lower concentrations at 1.5-feet and 2.5-feet. JP-4 was also found at one 37-foot step-out (-E37-1814) at the surface exceeding the criteria. A step-down sample at 1.5-feet at this location revealed concentrations slightly below the criteria. No step out sample was collected from this location since it would be located on the asphalt taxiway. Hydrocarbons in the diesel range were also found in samples -O-C-1811 and -E37-1814 at the surface at concentrations that exceeded the criteria. The diesel range hydrocarbons at depth at these locations was well below the action goal criteria. A duplicate sample was collected at -O-C-1811 and produced reasonable results.

Metals: Copper and vanadium were not found above the action goal criteria for any sample.

3.1.4 Revetment 22

A table of results with associated evaluation criteria is presented in Table A-4 of Appendix A. At Revetment 22, TPH contamination was found highest at the center sample location, HB-99-SO-22a, at the surface.

TPH: Samples were collected at the center and 10-foot step-outs in four directions from the center sample location at the surface. Only one of the four samples (-E10-1819) had diesel and oil range concentrations that marginally exceeded the criteria. The one-foot depth sample revealed no detections. Two surface 5-foot step-outs north and south of this sample point were also non-detect.

3.1.5 Revetment 25

A table of results with associated evaluation criteria is presented in Table A-5 of Appendix A. Previous sampling at Revetment 25 indicated marginal concentrations of TPH in the diesel and oil range existing in the surface soil at sample location, HB-99-SO-25a. The barium concentration at this same location was also above the criteria and will be evaluated as a part of this sampling regime. A total of five surface samples were collected, one center location and four locations stepped out from the center 10 feet in four directions (N, S, E, W).

TPH: Diesel and oil range hydrocarbons were detected in all five samples well below the action goal criteria.

Metals: Barium was detected in all five samples below the action goal criteria.

3.1.6 Revetment 26

A table of results with associated evaluation criteria is presented in Table A-6 of Appendix A. Previous center sample location, HB-99-SO-26a, indicated concentrations of TPH residing in the JP-4 and diesel range that exceeded criteria, at the surface and at possible deeper depths. Barium, boron and manganese concentrations were also exceeding at this same location in the surface soils and will also be evaluated as a part of this sampling regime. At this revetment, initial samples were collected at the previous center and 10 feet to the north, east and south and at 30 and 40 feet to the west. This was based on visual observations of stained soils.

TPH: JP-4 range hydrocarbons were found in the center sample location (-O-C-1826) at the surface and 2-feet at concentrations greater than the action goal criteria. A sample stepped out 30-feet west from the center location revealed JP-4 range hydrocarbon concentrations marginally exceeding the criteria. Petroleum hydrocarbons in the diesel and oil range were also marginally detected in the center location at 2-feet and 3-feet. All other planned and stepped out samples indicated TPH concentrations below the action goal criteria. A duplicate samples was collected at -W40-1831-1.0 and produced reasonable results.

Metals: Barium and manganese were found below the action goal criteria in all samples. Boron was not detected in any sample.

3.2 Data Quality

All analysis was conducted at each revetment site and is detailed in Table 4-1 of the Revetment PAS Work Plan and in the Results by Revetment section of this document. In general, TPH – Purgeable and Extractable, PAHs and various metals were the analytes of concern. The analytical methods used are listed below in Table 3-2. A complete set of chemical analytical details for data collected during this event can be found in the Quality Assurance Project Plan (QAPP) Section 4.0 of the Work Plan.

Table 3-2: Analytical Methods

Analyte	Analytical Method
Total PAHs	EPA Method SW8270C SIM
TPH-P (gasoline/JP-4 range)	EPA Method SW8015B
TPH-E (diesel/motor oil range)	EPA Method SW8015B
Total Metals	EPA Method SW6010B

The results of the analyses were compared to the previously developed evaluation criteria

listed in Table 3-1.

EMAX Laboratories, Inc. (EMAX) in Torrance, Ca. analyzed the samples for the scheduled analyses. The US Army Corps of Engineers, Sacramento District, Environmental Design Section collected the samples. The Chemistry Section using the Automated Data Review (ADR) system provided by Laboratory Data Consultants, Sacramento, reviewed the data. To ensure the data collected are of known quality and useful for the purposes for which they are intended, the data were reviewed using the PARCC parameters (i.e.,) Precision, Accuracy, Representativeness, Comparability, and Completeness).

Overall, the quality of sample data was adequate to measure contaminant concentrations.

4.0 CONCLUSIONS

The following conclusions are based upon the analytical data and field measurements collected during the Remedial Investigation:

4.1 Revetment 14

The five Revetment 14 samples analyzed were all below the inboard action goal of 144 mg/kg for diesel and motor oil. The previous sample result of 160 mg/kg for extractable range hydrocarbons was not reproducible. No soils staining or odors were present and the low level hydrocarbons may have attenuated since the 1999 sampling event.

4.2 Revetment 19

All of the Revetment 19 samples analyzed that exceed the inboard action goals for various contaminants were surface samples. Out of 10 samples for metals only the barium and lead maximum values exceeded the action goals, 280 mg/kg versus 190 mg/kg and 64.4 mg/kg versus 46.7 mg/kg, respectfully. The barium and lead average concentrations of 130 mg/kg and 23 mg/kg, respectfully, are well below the action goals. It was decided to not collect any additional samples for metals. The results of the TPH analysis indicate that the TPH is confined to a relatively small portion of the revetment and is limited to extractable range hydrocarbons. Total PAHs quickly took over driving the need for step out sampling at this revetment. All samples for PAHs at one foot depth were below the action goals. Surface step outs to the north, south and west bound the area of PAHs above action goals. The furthest surface step out sample to the east had a marginal exceedance, however additional step out samples were not collected since they would have been located in the asphalt taxiway.

4.3 Revetment 21

The Revetment 21 samples analyzed for metals were below the inboard action goals. Visual observations of stained soils lead to moving the initial step out samples to a fair distance from the previous center sample location. A layer of stained soils was visible from about 3 to 9 inches below grade so the surface samples were relocated to a 6 inch depth to capture this layer of stained soils. The samples analyzed at the center of the sample layout (R21-O-C) exceed the TPH inboard action goals to a depth of 30 inches. At this location a black rock layer, thought to be degraded asphalt, was encountered at about 20 inches below grade. An intact asphalt layer was encountered at Revetment 26 at about 20 inches below grade and asphalt paving is present at Revetment 23 at this same horizon. The degree of degradation of the asphalt here and the presence of JP-4 beneath it indicates that the concentration of the fuel may have been high enough to dissolve and degrade the asphalt pavement.

Two samples were collected and analyzed at sample point R21-E-37. The sample collected from 0 to 6-inches bgs exceeded the inboard action goals. The sample collected from 12 to 18-inches did not exceed the TPH inboard action goals. Further step outs in this direction were not collected since they would be located in the asphalt taxiway. The step out samples in all other directions did not have any exceedances of the action goals and therefore represent the outside boundary of the TPH contamination at this site.

4.4 Revetment 22

All of the Revetment 22 samples analyzed for TPH (gasoline, JP-4 jet fuel, diesel, and Motor oil) and metals were below the inboard action goals except the surface sample collected at sample point R22-E-10. There were three five foot surface step out samples and a one foot step down sample collected around R22-E-10. All of these results were below the action goals. The previous detections of TPH from the 1999 sampling effort were not really reproduced in this effort. No stained soils or other indicators of contamination were present. The samples collected do bound the aerial extent and depth of the contamination present at this site.

4.5 Revetment 25

The five Revetment 25 samples analyzed were all below the diesel and motor oil inboard action goal of 144 mg/kg and below the barium inboard action goal of 190 mg/kg. The previous sample result of 330 mg/kg for extractable range hydrocarbons was not reproducible. No soils staining or odors were present and the low level hydrocarbons may have attenuated since the 1999 sampling event. The previous sample result of 238 mg/kg for barium was not reproducible.

4.6 Revetment 26

Visual staining at this site lead to moving the initial west step out samples to 30 and 40 feet from the previous center location. The surface samples were also moved to a 6 inch depth to capture the visibly stained soil lens. At the previous center location an asphalt layer was encountered at about 20 to 24 inches below grade. All of the Revetment 26 samples analyzed for barium, boron, and manganese were below the inboard action goals. The samples analyzed for TPH at the previous center and at the 30 foot west step out sample exceeded the inboard action goals. At the west 30 foot step out location, step out samples were collected to the north and south and a step down was collected. All of these sample results were below the action goals. At the previous center location samples were collected from three depths. The upper samples were collected above the asphalt layer and contained

JP-4 constituents while the sample below the asphalt layer did not contain JP-4 constituents. The asphalt layer being intact and the lack of JP-4 beneath it are indicators that the JP-4 did not penetrate the asphalt at this location like it did at Revetment 21. The sample beneath the asphalt layer did have a marginal exceedance of motor oil, which would be expected below asphalt.

5.0 REFERENCES

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Work Plan, Pre-remedial Investigation Sampling, Revetment Area #'s 14, 19, 21, 22, 25 and 26, Hamilton Army Airfield, Novato, California prepared by the US Army Corps of Engineers, Sacramento District, February 2005.

APPENDIX A
LABORATORY ANALYTICAL
RESULTS

Table A - 1

**Revetment 14 - Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R14-E-10-1804	HAAF-R14-N-10-1803	HAAF-R14-O-C-1801	HAAF-R14-S-10-1805
Field Sample ID	HAAF-R14-E-10-1804-0	HAAF-R14-N-10-1803-0	HAAF-R14-O-C-1801-0	HAAF-R14-S-10-1805-0
Sample Date	04/22/2005	04/22/2005	04/22/2005	04/22/2005
Sample Depth	0 - 0.25	0 - 0.25	0 - 0.25	0 - 0.25
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	18	7.9 J	7.1 J	11 J
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	33	9.4 J	11 J	9.5 J

NA = not applicable

Bolded Values are detections that exceed Action Goal.

Shaded Values are reporting limits for undetected results that exceed the Action Goal.

*Value itself does not exceed Action Goal (MDL < Action Goal).

ND < RL= Not detected above reporting limit

J = estimated value

<> = Value exceeds Action Goal by at least 2 times or greater

Table A - 1
Revetment 14 - Analytical Results
Hamilton Army Airfield, May 2005

Location	HAAF-R14-W-10-1802
Field Sample ID	HAAF-R14-W-10-1802-0
Sample Date	04/22/2005
Sample Depth	0 - 0.25

8015B DRO (mg/Kg)		
TPH-EXTRACTABLE, DIESEL	(C12-C24)	23
TPH-EXTRACTABLE, MOTOR		22
OIL (C24-C36)		

Table A - 2

Revetment 19 – Analytical Results
Hamilton Army Airfield, May 2005

Location	HAAF-R19-E-10-1809	HAAF-R19-E-10-1809	HAAF-R19-E-15-1833	HAAF-R19-E-15-1833
Field Sample ID	HAAF-R19-E-10-1809-0	HAAF-R19-E-10-1809-1.0	HAAF-R19-E-15-1833-0	HAAF-R19-E-15-1833-1.0
Sample Date	04/21/2005	04/21/2005	04/26/2005	04/26/2005 and 05/04/2005
Sample Depth	0 - 0.25	1 - 1.25	0 - 0.25	1 - 1.25
6010B (mg/Kg)				
BARIUM	130	103	NA	NA
CADMIUM	0.365 J	0.127 J	NA	NA
COPPER	34.5	34.4	NA	NA
LEAD	24.9	12.1	NA	NA
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	58	26	23	ND < 12
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	130	41	20 J	ND < 23
8015B GRO (mg/Kg)				
JP-4 (C6-C14)	ND < 1.7	NA	NA	NA
TPH-PURGEABLE (C6-C12)	1.4 J	NA	NA	NA
8270C, SIM (mg/Kg)				
2-METHYLNAPHTHALENE	0.025	ND < 0.012	0.056	ND < 0.012
ACENAPHTHENE	0.16	0.055	0.14 J	ND < 0.012
ACENAPHTHYLENE	ND < 0.022	ND < 0.023	ND < 0.022	ND < 0.024
ANTHRACENE	0.18	0.07	0.14	ND < 0.024
BENZO(A)ANTHRACENE	0.54	0.21	0.51	ND < 0.024
BENZO(A)PYRENE	0.51	0.21	0.39	ND < 0.024
BENZO(B)FLUORANTHENE	0.72	0.3	0.62	ND < 0.024
BENZO(G,H,I)PERYLENE	0.33	0.13	0.22	ND < 0.024
BENZO(K)FLUORANTHENE	0.24	0.08	0.15	ND < 0.024
CHRYSENE	0.48	0.18	0.44	ND < 0.024
DIBENZ(A,H)ANTHRACENE	0.094	0.04	0.065	ND < 0.024
FLUORANTHENE	1.3	0.49	1	0.017 J
FLUORENE	0.13	0.044	0.11	ND < 0.012
INDENO(1,2,3-CD)PYRENE	0.36	0.14	0.26	ND < 0.024
NAPHTHALENE	ND < 0.022	ND < 0.023	0.051	ND < 0.024
PHENANTHRENE	1.2	0.38	0.91	ND < 0.024
PYRENE	0.98	0.38	0.79	0.014 J
TOTAL PAHS	7.4	2.7	5.6	0.031

NA = not applicable

Bolded Values are detections that exceed Action Goal.

Shaded Values are reporting limits for undetected results that exceed the Action Goal.

*Value itself does not exceed Action Goal (MDL < Action Goal).

ND < RL= Not detected above reporting limit

J = estimated value

<> = Value exceeds Action Goal by at least 2 times or greater

Table A - 2

**Revetment 19 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R19-E-25-1854	HAAF-R19-N-10-1808	HAAF-R19-N-10-1808	HAAF-R19-N-15-1839
Field Sample ID	HAAF-R19-E-25-1854-0	HAAF-R19-N-10-1808-0	HAAF-R19-N-10-1808-1.0	HAAF-R19-N-15-1839-0
Sample Date	05/04/2005	04/21/2005	04/21/2005	04/27/2005
Sample Depth	0 - 0.25	0 - 0.25	1 - 1.25	0 - 0.25
6010B (mg/Kg)				
BARIUM	NA	121	121	NA
CADMIUM	NA	.527 J	ND < 0.575	NA
COPPER	NA	34.4	35.1	NA
LEAD	NA	64.6	16.6	NA
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	NA	79	27	NA
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	NA	150	20 J	NA
8015B GRO (mg/Kg)				
JP-4 (C6-C14)	NA	ND < 1.7	NA	NA
TPH-PURGEABLE (C6-C12)	NA	ND < 1.7	NA	NA
8270C, SIM (mg/Kg)				
2-METHYLNAPHTHALENE	ND < 0.012	ND < 0.058	ND < 0.012	0.59
ACENAPHTHENE	0.065	0.29	0.034	2.7
ACENAPHTHYLENE	ND < 0.024	ND < 0.022	ND < 0.023	0.034
ANTHRACENE	0.1	0.39	0.047	3.2
BENZO(A)ANTHRACENE	0.34	0.92	0.15	4.9
BENZO(A)PYRENE	0.31	0.88	0.14	3.5
BENZO(B)FLUORANTHENE	0.43	1.4	0.22	4.9
BENZO(G,H,I)PERYLENE	0.17	0.65	0.087	1.7
BENZO(K)FLUORANTHENE	0.12	0.31	0.044	1.3
CHRYSENE	0.29	0.89	0.12	3.9
DIBENZ(A,H)ANTHRACENE	0.035	0.18	0.029	0.68
FLUORANTHENE	1.1	2.3	0.33	12
FLUORENE	0.057	0.24	0.028	2.6
INDENO(1,2,3-CD)PYRENE	0.19	0.7	0.098	2
NAPHTHALENE	ND < 0.024	0.032	ND < 0.023	0.31
PHENANTHRENE	0.63	2.1	0.27	13
PYRENE	0.68	1.7	0.24	9
TOTAL PAHS	5.4	< 13 >	1.8	< 66 >

Table A - 2

**Revetment 19 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R19-N-15-1839	HAAF-R19-N-25-1855	HAAF-R19-N-35-1846
Field Sample ID	HAAF-R19-N-15-1839-1.0	HAAF-R19-N-25-1855-0	HAAF-R19-N-35-1846-0
Sample Date	05/04/2005	05/04/2005	05/04/2005
Sample Depth	1 - 1.25	0 - 0.25	0 - 0.25
6010B (mg/Kg)			
BARIUM	NA	NA	NA
CADMIUM	NA	NA	NA
COPPER	NA	NA	NA
LEAD	NA	NA	NA
8015B DRO (mg/Kg)			
TPH-EXTRACTABLE, DIESEL (C12-C24)	NA	NA	NA
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	NA	NA	NA
8015B GRO (mg/Kg)			
JP-4 (C6-C14)	NA	NA	NA
TPH-PURGEABLE (C6-C12)	NA	NA	NA
8270C, SIM (mg/Kg)			
2-METHYLNAPHTHALENE	ND < 0.012	0.031	ND < 0.012
ACENAPHTHENE	ND < 0.012	0.056	ND < 0.012
ACENAPHTHYLENE	ND < 0.024	ND < 0.025	ND < 0.024
ANTHRACENE	ND < 0.024	0.061	ND < 0.024
BENZO(A)ANTHRACENE	ND < 0.024	0.25	ND < 0.024
BENZO(A)PYRENE	ND < 0.024	0.23	ND < 0.024
BENZO(B)FLUORANTHENE	ND < 0.024	0.3	ND < 0.024
BENZO(G,H,I)PERYLENE	ND < 0.024	0.14	ND < 0.024
BENZO(K)FLUORANTHENE	ND < 0.024	0.13	ND < 0.024
CHRYSENE	ND < 0.024	0.25	ND < 0.024
DIBENZ(A,H)ANTHRACENE	ND < 0.024	0.033	ND < 0.024
FLUORANTHENE	ND < 0.024	0.64	0.016 J
FLUORENE	ND < 0.012	0.044	ND < 0.012
INDENO(1,2,3-CD)PYRENE	ND < 0.024	0.15	ND < 0.024
NAPHTHALENE	ND < 0.024	0.014 J	ND < 0.024
PHENANTHRENE	ND < 0.024	0.46	ND < 0.024
PYRENE	ND < 0.024	0.52	0.013 J
TOTAL PAHS	Not Detected	3.4	0.029

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**Revetment 19 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R19-O-C-1806	HAAF-R19-O-C-1806	HAAF-R19-S-10-1810	HAAF-R19-S-10-1810
Field Sample ID	HAAF-R19-O-C-1806-0	HAAF-R19-O-C-1806-1.0	HAAF-R19-S-10-1810-0	HAAF-R19-S-10-1810-1.0
Sample Date	04/21/2005	04/21/2005	04/21/2005	04/21/2005
Sample Depth	0 - 0.25	1 - 1.25	0 - 0.25	1 - 1.25
6010B (mg/Kg)				
BARIUM	97.8	95.1	280	84.6
CADMIUM	0.303 J	ND < 0.582	0.469 J	0.148 J
COPPER	48.1	36.8	33.2	31.5
LEAD	14.6	17.2	20.1	9.18
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	99	55	23	6 J
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	73 J	14 J	40	12 J
8015B GRO (mg/Kg)				
JP-4 (C6-C14)	ND < 1.6	NA	ND < 1.5	NA
TPH-PURGEABLE (C6-C12)	4.9	NA	ND < 1.5	NA
8270C, SIM (mg/Kg)				
2-METHYLNAPHTHALENE	0.12	0.06	0.028	ND < 0.012
ACENAPHTHENE	0.59	0.019	0.13	ND < 0.012
ACENAPHTHYLENE	0.013 J	ND < 0.023	ND < 0.022	ND < 0.023
ANTHRACENE	0.73	0.022 J	0.18	ND < 0.023
BENZO(A)ANTHRACENE	1.5	0.073	0.54	ND < 0.025
BENZO(A)PYRENE	1.4	0.072	0.5	0.023 J
BENZO(B)FLUORANTHENE	2.2	0.11	0.7	0.04
BENZO(G,H,I)PERYLENE	0.82	0.045	0.32	0.017 J
BENZO(K)FLUORANTHENE	0.41	0.033	0.18	ND < 0.023
CHRYSENE	1.3	0.064	0.45	0.022 J
DIBENZ(A,H)ANTHRACENE	0.23	ND < 0.023	0.085	ND < 0.023
FLUORANTHENE	3.9	0.16	1.2	0.06
FLUORENE	0.56	0.016	0.11	ND < 0.012
INDENO(1,2,3-CD)PYRENE	0.95	0.053	0.35	0.023
NAPHTHALENE	0.063	ND < 0.023	0.018 J	ND < 0.023
PHENANTHRENE	3.9	0.1	0.95	0.042
PYRENE	2.8	0.12	0.89	0.045
TOTAL PAHS	< 21 >	0.95	6.6	0.30

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**Revetment 19 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R19-S-15-1840	HAAF-R19-S-15-1840	HAAF-R19-S-25-1853	HAAF-R19-S-35-1841
Field Sample ID	HAAF-R19-S-15-1840-0	HAAF-R19-S-15-1840-1.0	HAAF-R19-S-25-1853-0	HAAF-R19-S-35-1841-0
Sample Date	04/27/2005	05/04/2005	05/04/2005	05/04/2005
Sample Depth	0 - 0.25	1 - 1.25	0 - 0.25	0 - 0.25
6010B (mg/Kg)				
BARIUM	NA	NA	NA	NA
CADMIUM	NA	NA	NA	NA
COPPER	NA	NA	NA	NA
LEAD	NA	NA	NA	NA
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	NA	NA	NA	NA
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	NA	NA	NA	NA
8015B GRO (mg/Kg)				
JP-4 (C6-C14)	NA	NA	NA	NA
TPH-PURGEABLE (C6-C12)	NA	NA	NA	NA
8270C, SIM (mg/Kg)				
2-METHYLNAPHTHALENE	1.7	ND < 0.012	0.056	0.015
ACENAPHTHENE	8 J	ND < 0.012	0.23	0.04
ACENAPHTHYLENE	0.096	ND < 0.023	ND < 0.024	ND < 0.023
ANTHRACENE	9.6	ND < 0.023	0.22	0.02 J
BENZO(A)ANTHRACENE	17	0.018 J	0.59	0.096
BENZO(A)PYRENE	12	0.014 J	0.5	0.066
BENZO(B)FLUORANTHENE	16	0.024	0.65	0.13
BENZO(G,H,I)PERYLENE	5.3	ND < 0.023	0.28	0.047
BENZO(K)FLUORANTHENE	5.3	0.023	0.3	0.053
CHRYSENE	14	0.019 J	0.59	0.092
DIBENZ(A,H)ANTHRACENE	1.8 J	ND < 0.023	0.052	0.014 J
FLUORANTHENE	40	0.046	2	0.3
FLUORENE	7.8	ND < 0.012	0.17	0.027
INDENO(1,2,3-CD)PYRENE	6.3	ND < 0.023	0.31	0.054
NAPHTHALENE	1.1 J	ND < 0.023	0.036	ND < 0.023
PHENANTHRENE	41	0.031	1.7	0.3
PYRENE	29	0.035	1.5	0.23
TOTAL PAHS	< 220 >	0.19	< 11 >	1.5

Table A - 2

**Revetment 19 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R19-W-10-1807	HAAF-R19-W-10-1807	HAAF-R19-W-15-1832
Field Sample ID	HAAF-R19-W-10-1807-0	HAAF-R19-W-10-1807-1.0	HAAF-R19-W-15-1832-0
Sample Date	04/21/2005	04/21/2005	04/26/2005
Sample Depth	0 - 0.25	1 - 1.25	0 - 0.25
6010B (mg/Kg)			
BARIUM	117	150	NA
CADMIUM	0.562	ND < 0.589	NA
COPPER	33.2	38.5	NA
LEAD	29.6	20.8	NA
8015B DRO (mg/Kg)			
TPH-EXTRACTABLE, DIESEL (C12-C24)	230	87	53
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	200	ND < 24	44
8015B GRO (mg/Kg)			
JP-4 (C6-C14)	NA	NA	NA
TPH-PURGEABLE (C6-C12)	NA	NA	NA
8270C, SIM (mg/Kg)			
2-METHYLNAPHTHALENE	0.044	ND < 0.012	0.087
ACENAPHTHENE	0.42	ND < 0.012	0.42 J
ACENAPHTHYLENE	0.015 J	ND < 0.024	0.015 J
ANTHRACENE	0.73	ND < 0.024	0.58
BENZO(A)ANTHRACENE	2.9	0.022 J	1.6
BENZO(A)PYRENE	3	0.024	1.2
BENZO(B)FLUORANTHENE	4.2	0.04	1.7
BENZO(G,H,I)PERYLENE	1.7	0.018 J	0.73
BENZO(K)FLUORANTHENE	1.3	0.012 J	0.57
CHRYSENE	2.6	0.022 J	1.4
DIBENZ(A,H)ANTHRACENE	0.72	ND < 0.024	0.22
FLUORANTHENE	5.9	0.051	3.5
FLUORENE	0.35	ND < 0.012	0.36
INDENO(1,2,3-CD)PYRENE	2	0.024 J	0.72
NAPHTHALENE	0.017 J	ND < 0.024	0.049
PHENANTHRENE	3.7	0.038	3
PYRENE	4.6	0.039	2.7
TOTAL PAHS	< 34 >	0.29	< 19 >

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Revetment 19 – Analytical Results
Hamilton Army Airfield, May 2005

Location	HAAF-R19-W-15-1832	HAAF-R19-W-25-1856	HAAF-R19-W-35-1849
Field Sample ID	HAAF-R19-W-15-1832-1.0	HAAF-R19-W-25-1856-0	HAAF-R19-W-35-1849-0
Sample Date	04/26/2005 and 05/04/2005	05/04/2005	05/04/2005
Sample Depth	1 - 1.25	0 – 0.25	0 – 0.25
6010B (mg/Kg)			
BARIUM	NA	NA	NA
CADMIUM	NA	NA	NA
COPPER	NA	NA	NA
LEAD	NA	NA	NA
8015B DRO (mg/Kg)			
TPH-EXTRACTABLE, DIESEL (C12-C24)	ND < 12	NA	NA
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	ND < 24	NA	NA
8015B GRO (mg/Kg)			
JP-4 (C6-C14)	NA	NA	NA
TPH-PURGEABLE (C6-C12)	NA	NA	NA
8270C, SIM (mg/Kg)			
2-METHYLNAPHTHALENE	ND < 0.013	ND < 0.012	0.051
ACENAPHTHENE	ND < 0.013	ND < 0.012	0.12
ACENAPHTHYLENE	ND < 0.025	ND < 0.025	ND < 0.024
ANTHRACENE	ND < 0.025	ND < 0.025	0.055
BENZO(A)ANTHRACENE	0.037	0.039	0.22
BENZO(A)PYRENE	0.03	0.034	0.16
BENZO(B)FLUORANTHENE	0.05	0.05	0.28
BENZO(G,H,I)PERYLENE	0.022 J	0.022 J	0.1
BENZO(K)FLUORANTHENE	0.018 J	ND < 0.025	0.073
CHRYSENE	0.036	0.038	0.2
DIBENZ(A,H)ANTHRACENE	ND < 0.025	ND < 0.025	0.03
FLUORANTHENE	0.092	0.084	0.68
FLUORENE	ND < 0.013	ND < 0.012	0.079
INDENO(1,2,3-CD)PYRENE	0.025 J	0.022 J	0.12
NAPHTHALENE	ND < 0.025	ND < 0.025	0.043
PHENANTHRENE	0.059	0.052	0.67
PYRENE	0.072	0.072	0.5
TOTAL PAHS	0.44	0.41	3.4

Table A - 3

**Revetment 21 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R21-E23S35-1861	HAAF-R21-E-37-1814	HAAF-R21-E-37-1814	HAAF-R21-N-24-1813
Field Sample ID	HAAF-R21-E23S35-1861-0.5	HAAF-R21-E-37-1814-0.5	HAAF-R21-E-37-1814-1.5	HAAF-R21-N-24-1813-0.5
Sample Date	05/06/2005	04/21/2005	04/26/2005	04/21/2005
Sample Depth	0.5 – 0.75	0.5 - 0.75	1.5 - 1.75	0.5 - 0.75
6010B (mg/Kg)				
COPPER	NA	32.3	NA	30.8
VANADIUM	NA	73.6	NA	69.9
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	ND < 12	< 730 >	14	16
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	ND < 23	14 J	ND < 23	34
8015B GRO (mg/Kg)				
JP-4 (C6-C14)	ND < 0.95	< 400 >	11	ND < 1.5
TPH-PURGEABLE (C6-C12)	ND < 0.95	ND < 13	ND < 1.1	ND < 1.5

NA = not applicable

Bolded Values are detections that exceed Action Goal.

Shaded Values are reporting limits for undetected results that exceed the Action Goal.

*Value itself does not exceed Action Goal (MDL < Action Goal).

ND < RL= Not detected above reporting limit

J = estimated value

<> = Value exceeds Action Goal by at least 2 times or greater

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**Revetment 21 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R21-O-C-1811	HAAF-R21-O-C-1811	HAAF-R21-O-C-1811	HAAF-R21-S-30-1815
Field Sample ID	HAAF-R21-O-C-1811-0.5	HAAF-R21-O-C-1811-1.5	HAAF-R21-O-C-1811-2.5	HAAF-R21-S-30-1815-0.5
Sample Date	04/21/2005	04/21/2005	04/26/2005	04/21/2005
Sample Depth	0.5 - 0.75	1.5 - 1.75	2.5 - 2.75	0.5 - 0.75
6010B (mg/Kg)				
COPPER	32.7	33.2	NA	42.1
VANADIUM	75.2	90.8	NA	94.9
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	< 670 >	14	NA	22
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	ND < 23	ND < 24	NA	77
8015B GRO (mg/Kg)				
JP-4 (C6-C14)	< 370 >	20	< 230 >	ND < 1.4
TPH-PURGEABLE (C6-C12)	ND < 13	ND < 1.2	ND < 10	ND < 1.4

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**Revetment 21 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R21-W24N24-1862	HAAF-R21-W25S25-1860	HAAF-R21-W-38-1812
Field Sample ID	HAAF-R21-W24N24-1862-0.5	HAAF-R21-W25S25-1860-0.5	HAAF-R21-W-38-1812-0.5
Sample Date	05/06/2005	05/06/2005	04/21/2005
Sample Depth	0.5 – 0.75	0.5 – 0.75	0.5 - 0.75
6010B (mg/Kg)			
COPPER	NA	NA	20.1
VANADIUM	NA	NA	48.4
8015B DRO (mg/Kg)			
TPH-EXTRACTABLE, DIESEL (C12-C24)	ND < 12	ND < 11	21
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	ND < 25	ND < 23	74
8015B GRO (mg/Kg)			
JP-4 (C6-C14)	ND < 1	ND < 1.1	ND < 1.2
TPH-PURGEABLE (C6-C12)	ND < 1	ND < 1.1	ND < 1.2

Table A – 4

**Revetment 22 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R22-E-10-1819	HAAF-R22-E-10-1819	HAAF-R22-E10N5-1837	HAAF-R22-E10S5-1838
Field Sample ID	HAAF-R22-E-10-1819-0	HAAF-R22-E-10-1819-1.0	HAAF-R22-E10N5-1837-0	HAAF-R22-E10S5-1838-0
Sample Date	04/22/2005	04/27/2005	04/27/2005	04/27/2005
Sample Depth	0 - 0.25	1 - 1.25	0 - 0.25	0 - 0.25
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	200	ND < 12	ND < 11	ND < 11
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	190	ND < 24	11 J	ND < 23
8015B GRO (mg/Kg)				
JP-4 (C6-C14)	ND < 1.3	NA	NA	NA
TPH-PURGEABLE (C6-C12)	ND < 1.3	NA	NA	NA

NA = not applicable

Bolded Values are detections that exceed Action Goal.

Shaded Values are reporting limits for undetected results that exceed the Action Goal.

*Value itself does not exceed Action Goal (MDL < Action Goal).

ND < RL= Not detected above reporting limit

J = estimated value

<> = Value exceeds Action Goal by at least 2 times or greater

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**Revetment 22 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R22-E-15-1836	HAAF-R22-N-10-1818	HAAF-R22-O-C-1816	HAAF-R22-S-10-1820
Field Sample ID	HAAF-R22-E-15-1836-0	HAAF-R22-N-10-1818-0	HAAF-R22-O-C-1816-0	HAAF-R22-S-10-1820-0
Sample Date	04/27/2005	04/22/2005	04/22/2005	04/22/2005
Sample Depth	0 - 0.25	0 - 0.25	0 - 0.25	0 - 0.25
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	14	56	17	ND < 11
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	10 J	35	9.7 J	11 J
8015B GRO (mg/Kg)				
JP-4 (C6-C14)	NA	ND < 1.2	ND < 1.4	ND < 1.2
TPH-PURGEABLE (C6-C12)	NA	ND < 1.2	ND < 1.4	ND < 1.2

Table A – 4

**Revetment 22 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R22-W-10-1817
Field Sample ID	HAAF-R22-W-10-1817-0
Sample Date	04/27/2005
Sample Depth	0 - 0.25

8015B DRO (mg/Kg)

TPH-EXTRACTABLE, DIESEL (C12-C24)	65
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	47

8015B GRO (mg/Kg)

JP-4 (C6-C14)	ND < 1.4
TPH-PURGEABLE (C6-C12)	ND < 1.4

Table A – 5

**Revetment 25 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R25-E-10-1824	HAAF-R25-N-10-1823	HAAF-R25-O-C-1821	HAAF-R25-S-10-1825
Field Sample ID	HAAF-R25-E-10-1824-0	HAAF-R25-N-10-1823-0	HAAF-R25-O-C-1821-0	HAAF-R25-S-10-1825-0
Sample Date	04/22/2005	04/22/2005	04/22/2005	04/22/2005
Sample Depth	0 - 0.25	0 - 0.25	0 - 0.25	0 - 0.25
6010B (mg/Kg)				
BARIUM	108	128	124	113
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	9.1 J	5.8 J	12	9.2 J
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	19 J	48	36	25

NA = not applicable

Bolded Values are detections that exceed Action Goal.

Shaded Values are reporting limits for undetected results that exceed the Action Goal.

*Value itself does not exceed Action Goal (MDL < Action Goal).

ND < RL= Not detected above reporting limit

J = estimated value

<> = Value exceeds Action Goal by at least 2 times or greater

Table A – 5

**Revetment 25 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R25-W-10-1822	
Field Sample ID	HAAF-R25-W-10-1822-0	
Sample Date	04/22/2005	
Sample Depth	0 - 0.25	

6010B (mg/Kg)		
BARIUM		119
8015B DRO (mg/Kg)		
TPH-EXTRACTABLE, DIESEL (C12-C24)	16	
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	19 J	

Table A - 6

**Revetment 26 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R26-E-10-1829	HAAF-R26-N-10-1828	HAAF-R26-O-C-1826	HAAF-R26-O-C-1826
Field Sample ID	HAAF-R26-E-10-1829-0.5	HAAF-R26-N-10-1828-0.5	HAAF-R26-O-C-1826-0.5	HAAF-R26-O-C-1826-2.0
Sample Date	04/21/2005	04/21/2005	04/21/2005	04/21/2005
Sample Depth	0.5 - 0.75	0.5 - 0.75	0.5 - 0.75	2 - 2.25
6010B (mg/Kg)				
BARIUM	71	83.3	79.2	63.2
BORON	ND < 11.8	ND < 11.5	ND < 11.4	ND < 11.8
MANGANESE	281	187	214	127
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	23	19	120	170
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	44	72	78	84
8015B GRO (mg/Kg)				
JP-4 (C6-C14)	12	ND < 1.3	< 390 >	< 440 >
TPH-PURGEABLE (C6-C12)	ND < 1.7	ND < 1.3	ND < 14	ND < 13

NA = not applicable

Bolded Values are detections that exceed Action Goal.

Shaded Values are reporting limits for undetected results that exceed the Action Goal.

*Value itself does not exceed Action Goal (MDL < Action Goal).

ND < RL= Not detected above reporting limit

J = estimated value

<> = Value exceeds Action Goal by at least 2 times or greater

Table A-6

**Revetment 26 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R26-O-C-1826	HAAF-R26-S-10-1830	HAAF-R26-W-30-1827	HAAF-R26-W-30-1827
Field Sample ID	HAAF-R26-O-C-1826-3.0	HAAF-R26-S-10-1830-0.5	HAAF-R26-W-30-1827-0.5	HAAF-R26-W-30-1827-1.5
Sample Date	04/26/2005	04/21/2005	04/21/2005	04/21/2005
Sample Depth	3 - 3.25	0.5 - 0.75	0.5 - 0.75	1.5 - 1.75
6010B (mg/Kg)				
BARIUM	NA	77	76.9	76
BORON	NA	ND < 11.5	ND < 11.5	ND < 11.7
MANGANESE	NA	254	312	220
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	33	13	18	15
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	170	33	55	63
8015B GRO (mg/Kg)				
JP-4 (C6-C14)	6.8	ND < 1.5	< 43 >	1.8
TPH-PURGEABLE (C6-C12)	ND < 1.1	ND < 1.5	ND < 1.3	ND < 1.3

Table A - 6

**Revetment 26 – Analytical Results
Hamilton Army Airfield, May 2005**

Location	HAAF-R26-W30N15-1858	HAAF-R26-W30S10-1859	HAAF-R26-W-40-1831	HAAF-R26-W-40-1831
Field Sample ID	HAAF-R26-W30N15-1858-0.5	HAAF-R26-W30S10-1859-0.5	HAAF-R26-W-40-1831-0	HAAF-R26-W-40-1831-1.0
Sample Date	05/06/2005	05/06/2005	04/22/2005	04/22/2005
Sample Depth	0.5 – 0.75	0.5 – 0.75	0 - 0.25	1 - 1.25
6010B (mg/Kg)				
BARIUM	NA	NA	NA	NA
BORON	NA	NA	NA	NA
MANGANESE	NA	NA	NA	NA
8015B DRO (mg/Kg)				
TPH-EXTRACTABLE, DIESEL (C12-C24)	ND < 12	ND < 12	20	7.2 J
TPH-EXTRACTABLE, MOTOR OIL (C24-C36)	ND < 24	ND < 24	29	24
8015B GRO (mg/Kg)				
JP-4 (C6-C14)	2.6	3.5	ND < 1.3	1.7
TPH-PURGEABLE (C6-C12)	ND < 0.92	ND < 0.92	ND < 1.3	ND < 1.1