

N60200.AR.004661
NAS CECIL FIELD, FL
5090.3a

SITE REHABILITATION COMPLETION LETTER REPORT FOR BUILDING 842 NAS CECIL
FIELD FL
11/8/2006
TETRA TECH NUS INC



TETRA TECH NUS, INC.

8640 Philips Highway, Suite 16 • Jacksonville, FL 32256
Tel 904.636.6125 • Fax 904.636.6165 • www.tetrattech.com

Document Tracking Number 06JAX0124

November 8, 2006

Project Number 112GN4248

Mr. David Grabka
Florida Department of Environmental Protection
Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Reference: CLEAN III Contract Number N62467-94-D-0888
Contract Task Order 0248

Subject: Site Rehabilitation Completion Letter Report
Building 842
Naval Air Station Cecil Field
Jacksonville, Florida

Dear Mr. Grabka:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this Site Rehabilitation Completion Letter Report for the subject site. This report has been prepared for the United States Navy, Naval Facilities Engineering Command Southeast (NAVFAC SE) under Contract Task Order (CTO) 0248 for the Comprehensive Long-term Environmental Action Navy (CLEAN) III Contract Number N62467-94-D-0888. This Site Rehabilitation Completion Letter Report addresses the final source removal of petroleum-impacted soils in the vicinity of Building 842.

BACKGROUND

Building 842 was the radar building, housed ground electronics used for aircraft navigation, and was located in the central portion of the former Naval Air Station Cecil Field at the intersection of the north-south and east-west runways. The building was removed by the Jacksonville Aviation Authority. Tank G842B, a 550-gallon underground storage tank (UST) containing diesel fuel, was installed in a grassy area to the west of Building 842 in 1985 and was removed in 1999.

A confirmation sampling investigation conducted in January 1997 evaluated soil in the area of the tank for petroleum impacts. Soil samples were collected in the vicinity of the UST and were field-screened with an organic vapor analyzer (OVA). No excessively contaminated soil was identified at the time of this investigation. However, installation of a monitoring well and groundwater sampling of the well were recommended to complete the investigation.

A Confirmation Sampling investigation conducted in April 1998 evaluated groundwater at Tank Site G842B for petroleum impacts. One shallow monitoring well (CEF-842-1S) was installed downgradient of the UST and was sampled for volatile organic aromatics, polynuclear aromatic hydrocarbons (PAHs), and total recoverable petroleum hydrocarbons (TRPH). Because the investigation detected no contaminants in groundwater and no excessively contaminated soil was indicated previously, the Confirmatory Sampling Report recommended that no further action be taken at the site until the UST was removed.

A tank excavation and soil removal were conducted in September and November 1999 to remove any identified petroleum-contaminated soils. The extent of the excavation was determined by the results of field OVA screenings and by the results of offsite laboratory analysis of soil samples using the United States Environmental Protection Agency (USEPA) Kerosene Analytical Group (KAG) Method, which includes USEPA Method 8021 for volatile organic compounds, USEPA Method 8310 for PAHs, and the Florida Petroleum Range Organics Method for TRPH.

Approximately 13 cubic yards of soil were removed for off site disposal in September 1999. Five soil samples were collected from the walls of the excavation. Only one soil sample, collected from the eastern edge of the excavation area (CF-842-ES-01), exceeded the Florida Department of Environmental Protection (FDEP) Soil Cleanup Target Level (SCTL) of 340 milligrams per kilogram (mg/kg) with a TRPH concentration of 380 mg/kg. Therefore, an additional 2.3 cubic yards of soil were removed in November 1999.

A temporary monitoring well was installed in the center of the tank excavation, and a groundwater sample from the well was analyzed using the USEPA KAG Method. The Source Removal Report (SRR) recommended no further action at the site because the groundwater analytical results from the temporary well were determined to be less than FDEP Groundwater Cleanup Target Levels (GCTLs), and the soil analytical results from the confirmation samples collected in September 1999 were determined to be less than leachability SCTLs.

In April 2001, the FDEP issued a letter requesting additional site investigation because analytical results from two of the soil samples collected during the source removal were determined to have concentrations of dibenzo(a,h)anthracene and/or benzo(a)pyrene greater than residential direct exposure SCTLs, determined to be "hot spots". A Limited Supplemental Site Assessment (LSSA) was conducted in 2003 and 2004 to delineate the extent of petroleum impact beyond the hot spots detected during the source removal. The results of the LSSA indicated that hydrocarbon impacts were limited to these two hot spots along the edges of the former excavation. The LSSA recommended the removal of soils in the area of the hot spots to obtain a No Further Action Order without restrictions.

Based on the results of the LSSA, CCI conducted additional source removal activities at the site to address the remaining hot spots. Prior to excavation, TtNUS marked the horizontal extent of the excavation based on analytical data from prior sampling events. Limits of the excavation were based on sample results less than residential SCTLs. From January 25 to 27, 2006, CCI removed and disposed of 84.76 tons of non-hazardous PAH-impacted soils from the areas delineated by TtNUS. The areas were excavated 1 foot into the water table. Portions of the 2006 CCI report are included in Appendix A. CCI completed an SRR Addendum that was approved by the FDEP on April 3, 2006. The FDEP letter is included in Appendix B.

CONCLUSIONS AND RECOMMENDATIONS

Activities conducted during the supplemental source removal indicated that petroleum-impacted soil has been removed from the site and disposed off site as non-hazardous waste. Groundwater sampling was conducted during the initial source removal with no exceedances of GCTLs. The excavation area has been backfilled and restored to pre-remedial conditions.

Based on the results of the supplemental source removal, TtNUS recommends no further action and that a Site Rehabilitation Completion Order be issued for the site.

Mr. David Grabka

FDEP

November 8, 2006 – Page 3

If you have any questions regarding the information presented in this document, please contact me by phone at (904) 636-6125 or via e-mail at Mark.Peterson@ttnus.com.

Sincerely,



Mark A. Peterson, Task Order Manager

Florida Professional Geologist

PG Number 1917

Enclosures (2)

c: G. Magwood, NAVFAV SE (CD only)
M. Perry, TtNUS (unbound and CD)
D. Humbert, TtNUS (cover letter only)
J. Logan, TtNUS
R. Simcik, TtNUS (Bookcase File)
J. Johnson, TtNUS (Information Repository)
K. Wimble, TtNUS
CTO 0248 Project File

APPENDIX A

CCI MARCH 2006 SOURCE REMOVAL REPORT



CH2M HILL
115 Perimeter Center Place, N.E.
Suite 700
Atlanta, GA
30346-1278
Tel 770.604.9095
Fax 770.604.9282

March 17, 2006

Mr. Mark Davidson
NAVFAC EFD SOUTH
P.O. Box 190010
North Charleston, SC 29419-9010

Subject: Contract No. N62467-01-D-0331
Contract Task Order No. 0038
Former Naval Air Station Cecil Field - Jacksonville, Florida
Source Removal Report Addendum
Former Tank G842B Residual Petroleum-contaminated Soil Removal

Dear Mr. Davidson:

CH2M HILL Constructors, Inc. (CH2M HILL) is pleased to submit this Source Removal Report (SRR) Addendum to the SRR for the Underground Storage Tank Removal at Building 842, Tank G842B (CH2M HILL, August 2000) located at the former Naval Air Station (NAS) Cecil Field, Jacksonville, Florida. This SRR Addendum is prepared for the U.S. Naval Facilities Engineering Command, Engineering Field Division South (NAVFAC EFD SOUTH) under Contract Task Order (CTO) No. 0038 for Response Action Contract (RAC) No. N62467-01-D-0331.

The contents of this SRR Addendum document the activities to complete residual petroleum-contaminated soil removal at the former Tank G842B site (Site 842) located at the former NAS Cecil Field, Jacksonville, Florida. Residual petroleum-contaminated soil removal was completed in accordance with RAC 3 CTO No. 0005 Work Plan Addendum No. 15, Revision 00 (CH2M HILL, May 2002) and RAC 4 CTO No. 0038 Work Plan Addendum No. 15, Revisions 01 (CH2M HILL, September 2005) and 02 (CH2M HILL, January 2006), and the recommendations included in the Limited Scope Site Assessment (LSSA) Report (LSSAR) for Building 842, Tank G842B (Tetra Tech NUS, Inc. [TtNUS], December 2004).

Building 842 was the radar building and housed ground electronics used for aircraft navigation. It was located in the central portion of NAS Cecil Field at the intersection of the north-south and east-west runways. The building was removed by the Jacksonville Airport Authority (JAA), and the area immediately surrounding the former location of Building 842 is paved, with a driveway extending from the northern side of Building 842 to the runway north of the building. The remainder of the area is grass covered. The area of the former Building 842 is surrounded to the north, south, east, and west by paved areas of the runways and flightline with maintained grass areas in between. The JAA continues to use these runways and taxiways.

Prior to underground storage tank (UST) removal, a confirmation sampling investigation was conducted in January 1997 and April 1998 to evaluate site groundwater and soil for petroleum impacts. The investigation detected no contaminants in the groundwater and no excessively

contaminated soil. The Confirmatory Sampling Report recommended that no further action be taken at the site until the tank was removed.

A tank excavation and soil removal were conducted in September and November 1999. Approximately 13 cubic yards of soil were removed for offsite disposal in September, and an additional 2.3 yards were removed in November. The SRR recommended that no further action was required at the site because the groundwater analytical results from an installed temporary well were below Florida Department of Environmental Protection (FDEP) Groundwater Cleanup Target Levels and the soil analytical results from collected confirmation samples were less than the FDEP Soil Cleanup Target Levels (SCTLs) for Leachability based on Groundwater Criteria.

In April 2001, the FDEP issued a letter requesting additional site investigation because analytical results from two soil samples collected during the tank and soil removal had dibenzo(a,h)anthracene and/or benzo(a)pyrene concentrations above the FDEP SCTLs for Direct Exposure - Residential Criteria. An LSSA was conducted in 2003 and 2004 to delineate the extent of petroleum impact beyond the hot spots detected during the tank and soil removal. The LSSAR recommended that additional soil be excavated from two hot spots, and removal of the soil with polynuclear aromatic hydrocarbon (PAH) exceedances may allow future unrestricted reuse of the site and approval of no further action.

CH2M HILL was tasked by NAVFAC EFD SOUTH in a Technical Direction, dated November 7, 2005, to remove, transport, and dispose of approximately 30 tons of PAH-contaminated soil from two excavation areas at Site 842 in order to achieve unrestricted reuse of the site and approval of no further action. The scope of work for residual petroleum-contaminated soil removal is outlined in the RAC 4 CTO No. 0038 Work Plan Addendum No. 15, Revision 02 (CH2M HILL, January 2006). The scope of work included:

- Site preparation
- Excavation, disposal characterization, transportation, and disposal of PAH-contaminated soil from two excavation areas
- Backfill and site restoration of the two excavation areas
- Preparation and submittal of a Source Removal Report Addendum

Site preparation activities included requesting TtNUS to locate and mark the horizontal excavation limits specified on the Excavation Plan provided in Enclosure 2, and requesting an excavation permit from JAA. TtNUS located and marked the horizontal excavation limits using pin flags on January 20, 2006. An excavation permit was requested from JAA; however, based on a review of historical drawings of the site and a site walk by JAA maintenance personnel, JAA determined that no utilities were present within the two excavation areas or in the vicinity of the project site and a formal excavation permit was not necessary. Sunshine State One-call of Florida was not notified due to the location of the site in a JAA-controlled access area.

Personnel and equipment were mobilized to the site on January 25, 2006. Soil excavation was completed using a backhoe with an extendable boom from January 25 to 27, 2006 to the specified horizontal excavation limits shown on the Excavation Plan (Enclosure 2) and a depth of 1 foot into the water table. The approximate excavation dimensions for each excavation area

Mr. Mark Davidson
March 17, 2006
Page 3

measured 6 feet wide by 10 feet long by 11 feet deep. Excavated soil was loaded into six 20-cubic-yard roll-off containers lined with 20-mil polyethylene sheeting. The two excavation areas were backfilled in 1-foot lifts to grade from January 25 to 27, 2006, with certified "clean" fill material supplied by Coxwell Contracting. The laboratory analytical summary table and report certifying the material as "clean" are provided in Enclosure 5. Following backfill and final grading, 450 square feet of grass sod was placed on the disturbed areas on January 27 and 30, 2006. Representative photographs of site activities are provided in Enclosure 3.

Soil disposal characterization samples were collected on January 30, 2006, and analyzed by PEL Laboratories, Inc. for toxicity characteristic leaching procedure (TCLP) volatiles by U.S. Environmental Protection Agency (EPA) SW-846 Method 1311/8260B, TCLP semi-volatiles by EPA SW-846 Method 1311/8270C, TCLP pesticides by SW-846 Method 1311/8081A, polychlorinated biphenyls by EPA SW-846 Method 8082, TCLP herbicides by EPA SW-846 Method 1311/8151A, TCLP metals by EPA SW-846 Method 1311/6010B/7470A, corrosivity by EPA SW-846 Method 9045D, and ignitability by EPA SW-846 Method 1030. Following receipt and review of the laboratory analytical report, the soil was characterized as non-hazardous. The soil disposal characterization laboratory analytical report is provided in Enclosure 5.

The six 20-cubic-yard roll-off containers containing the excavated soil were transported by Southern Waste Services, Inc. (SWS Environmental First Response) and disposed of at Waste Management - Chesser Island Road Landfill on February 22 and 23, 2006. Based on the weight tickets, 84.76 tons of non-hazardous PAH-contaminated soil was excavated and transported for disposal. The Transportation and Disposal Log and copies of the waste disposal profile, waste manifests, weight tickets, and certificate of disposal are provided in Enclosure 4.

Based on the soil removal activities documented in this SRR Addendum, CH2M HILL completed the scope of work as outlined in the RAC 4 CTO No. 0038 Work Plan Addendum No. 15, Revision 02 (CH2M HILL, January 2006).

The Signature Page for approval of this SRR Addendum and the Certification of Technical Data Conformity are provided in Enclosure 1.

If you have any questions with regard to this submittal, please contact Michael Halil at (904) 777-4812 x. 233.

Respectfully,



Michael D. Halil, P.E.
Project Manager

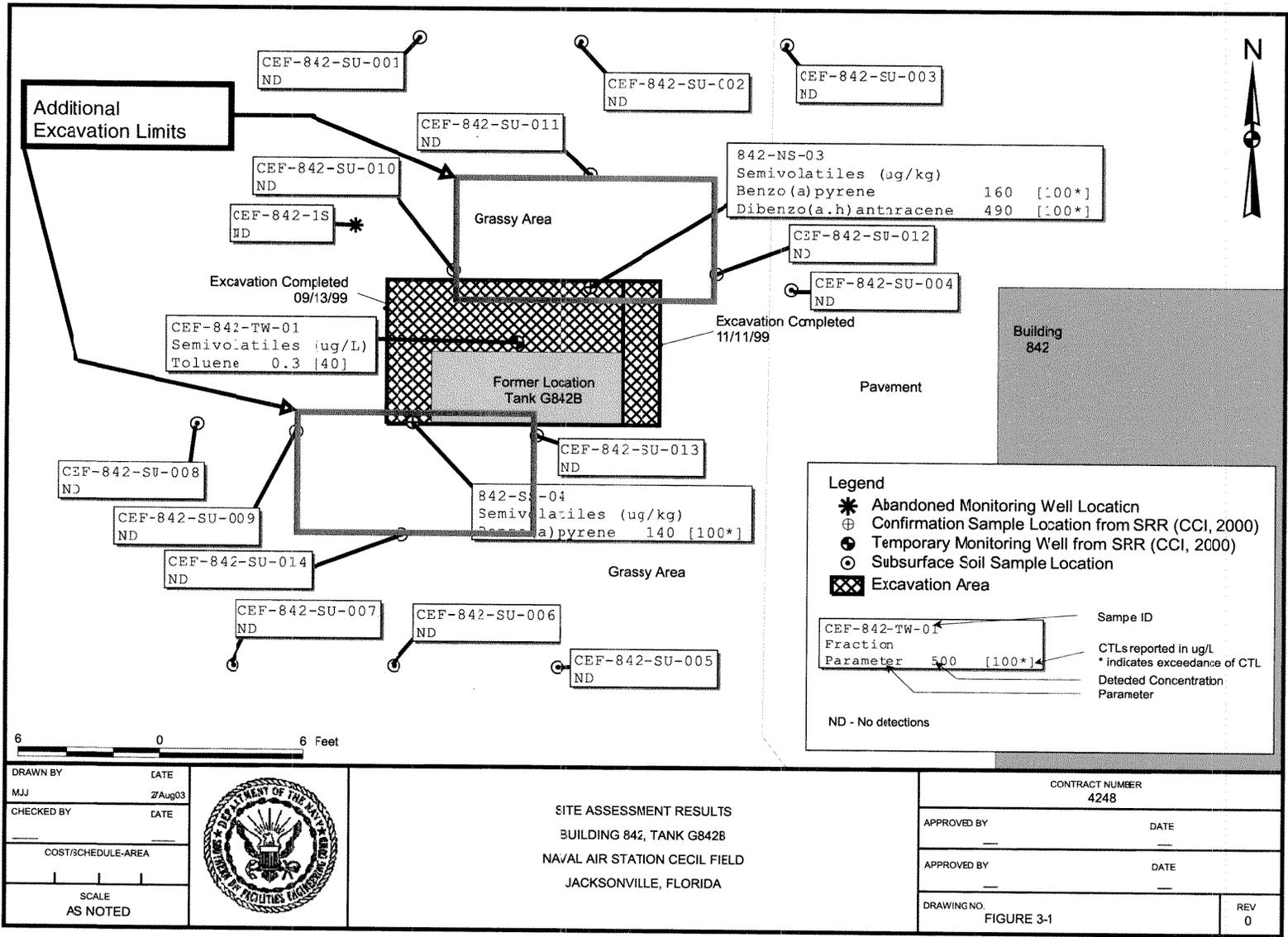
Enclosures (5)

cc: Mr. Larry Blackburn, EFA Southeast
Mr. David Grabka, FDEP
Mr. Doyle Brittain, USEPA
Mr. Mark Speranza, TtNUS
Project File No. 333944

05JAX0027

3-4

CTO 0248



APPENDIX B
APRIL 2006 FDEP LETTER



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

April 3, 2006

Commanding Officer
Attn: Mr. Mark Davidson, Code ES33
NAVFAC EFD SOUTH
Post Office Box 190010
North Charleston, SC 29419-9010

RE: Source Removal Report Addendum, Former Tank G842B Residual
Petroleum-contaminated Soil Removal, Former Naval Air
Station Cecil Field, Florida.

Dear Mr. Davidson:

I have completed my review of the Source Removal Report Addendum, Former Tank G842B Residual Petroleum-contaminated Soil Removal, Former Naval Air Station Cecil Field, dated March 2006 (received March 24, 2006), prepared and submitted by CH2M Hill Constructors, Inc. The report adequately documents the excavation and disposal of 84.76 tons of non-hazardous PAH-contaminated soil. The Source Removal Report is approved as final.

In accordance with Rule 62-770.680(4), Florida Administrative Code (F.A.C.), please submit a Site Rehabilitation Completion Report (SRCR) that is signed and sealed by an appropriate registered professional pursuant to Rule 62-770.490, F.A.C. The SRCR should summarize the previous investigations and soil removals in order to document that No Further Action is required at this site.

If you have any concerns regarding this letter, please contact me at (850)245-8997.

Sincerely,


David P. Grabka, P.G.
Remedial Project Manager

CC: Doyle Brittain, USEPA, Atlanta

"More Protection, Less Process."

Printed on recycled paper.