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NAS CECIL FIELD, FL
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LETTER REPORT REGARDING WETLANDS IMPACT FROM PROPOSED REMOVAL ACTION AT OPERABLE UNIT 5 (OU 5) SITE 49 FORMER SKEET RANGE NAS CECIL FIELD FL

4/3/2002

TETRA TECH NUS INC

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April 3, 2002

Mr. Steve Sabia
Florida Department of Environmental Protection
7825 Baymeadows Way
Suite 200B
Jacksonville, Florida 32256

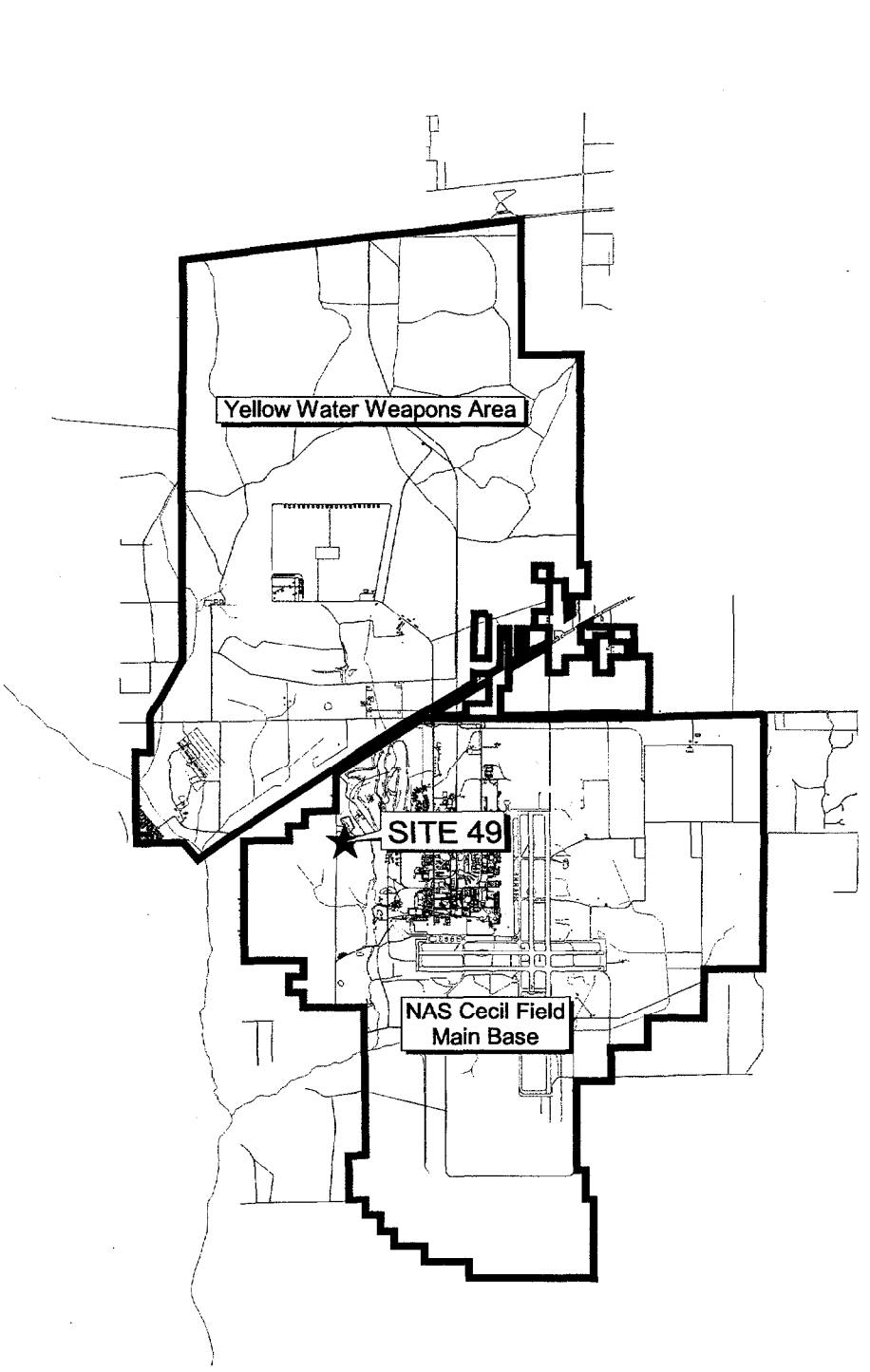
Subject: Wetland Impacts from Proposed Removal Action at Site 49 (Former Skeet Range), NAS Cecil Field

Dear Mr. Sabia:

Tetra Tech NUS (TtNUS) is under contract to Southern Division, Naval Facilities Engineering Command to design a removal action addressing contaminated surface soils at Operable Unit (OU) 5, Site 49 (Former Skeet Range) at the Naval Air Station (NAS) Cecil Field (Figure 1). NAS Cecil Field is on the National Priorities List (NPL) of sites identified by the U.S. Environmental Protection Agency (EPA) as requiring priority cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The following letter describes wetland impacts that will be unavoidable if the Navy implements a removal action to clean up contaminated soils at Site 49 in accordance with the National Contingency Plan (NCP; 40 CFR 3000.415). The Navy will submit a complete design package for the removal action as soon as the design is complete.

The Navy requests that the Florida Department of Environmental Protection (FDEP) review the wetland impacts described below and indicate whether further action or authorizations are required. The Navy believes that because the removal action will be performed in the context of CERCLA, and because the FDEP will review the wetland impacts as part of its overall review of the removal action, that formal application for wetland permits is not necessary.

Site Description: Site 49 consists of an unpaved land area that was used as a skeet shooting range (Facility 804) from 1965 to 1998 (Photograph 1). Historic aerial photographs indicate that the land area was undeveloped prior to its use as a skeet range. An environmental baseline survey completed by the Navy in 1994 (ABB-ES, 1994) recommended that soils in the vicinity of the skeet range be investigated for possible lead contamination originating from lead shot. TtNUS, under contract to the Navy, performed soil sampling that detected and delineated



DRAWN BY MJJ	DATE 26Jun01	GENERAL LOCATION MAP SITE 49, FORMER SKEET RANGE NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 0039
CHECKED BY	DATE		APPROVED BY DATE
COST/SCHEDULE-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 1 / REV 0

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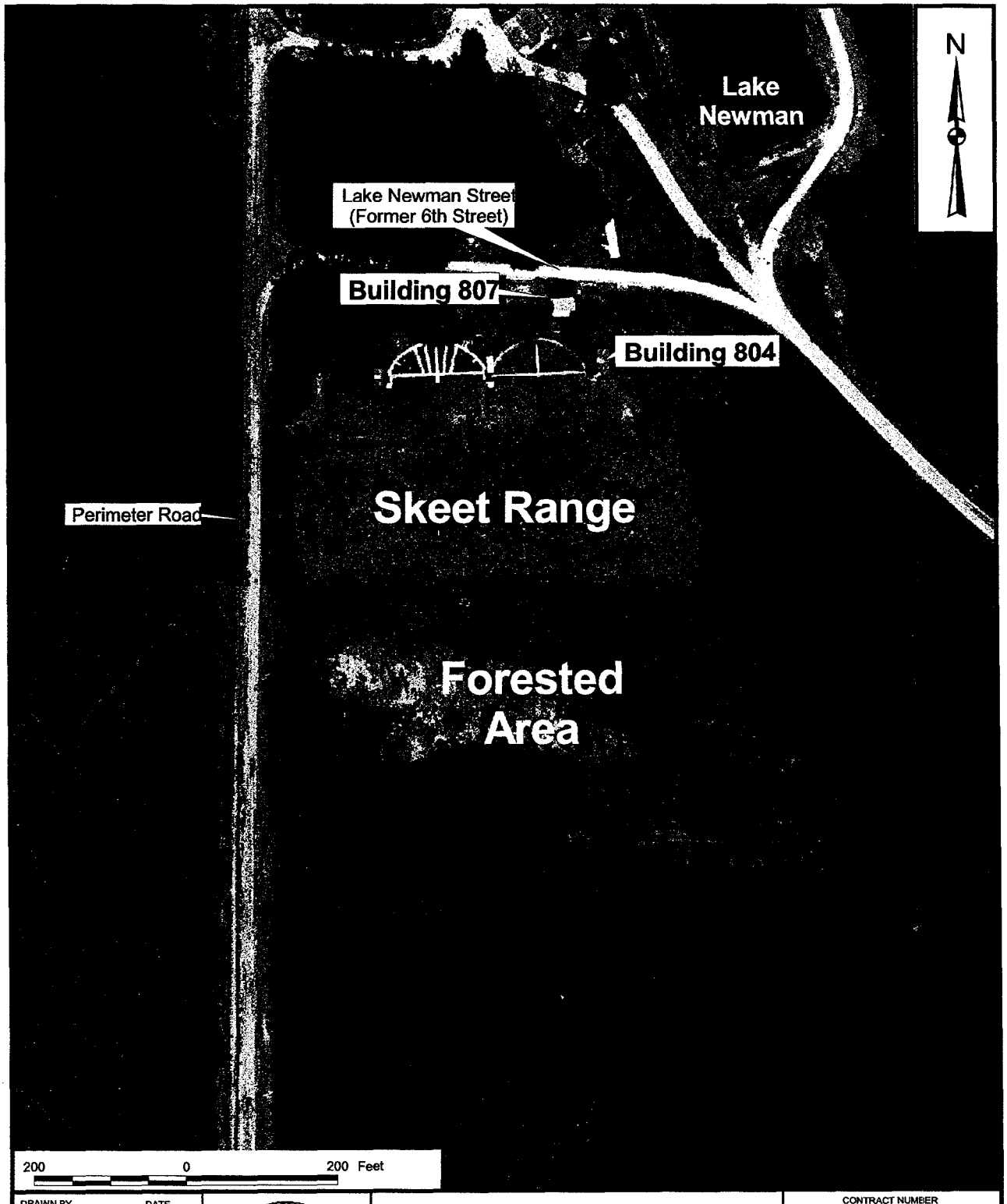

DRAWN BY MJJ	DATE 26Jun01	SITE LAYOUT MAP SITE 49, FORMER SKEET RANGE NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 0039
CHECKED BY	DATE		APPROVED BY DATE
COST/SCHEDULE-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. PHOTOGRAPH 1 / REV 0

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contamination by polynuclear aromatic hydrocarbons and inorganic constituents (including lead). The results of TtNUS's investigations are reported in an Engineering Evaluation/Cost Analysis (EE/CA) (TtNUS, 2002a). A tag map from the EE/CA that summarizes soil sample locations and detected contaminants is provided as Figure 2. The Navy concludes that unless the removal action is promptly implemented, contaminated soils at Site 49 could present an imminent and substantial endangerment to public health or the environment (TtNUS, 2002b).

Description of Proposed Removal Action: The removal action calls for excavation and proper off-site disposal of approximately 5,194 cubic yards of contaminated soil from 11 areas of soil contamination totaling approximately 99,481 square feet (2.3 acres). Each area of soil contamination (designated as Areas 1 through 11) is shown in Figure 2. The size (surface area), proposed excavation depth, and a brief description for each of the 11 areas are presented in Table 1.

Wetland Delineation: Wetlands on Site 49 were delineated by Environmental Resource Solutions (ERS), contractor to the City of Jacksonville, as part of a larger wetland delineation addressing all lands potentially affected by a proposed project to expand an existing lake (Lake Fretwell) to increase stormwater management capabilities in areas of NAS Cecil Field undergoing redevelopment. The wetland delineation identified areas meeting the definitions for wetlands established by the U.S. Army Corps of Engineers (COE) (33 CFR 328), the EPA (40 CFR 230), and the State of Florida (Chapter 62-340 F.A.C).

Figure 3 depicts the delineated wetland boundary and its spatial relation to each area of soil contamination. Wetlands occur only in the southern part of Site 49. According to ERS, the boundaries meeting the Federal and State of Florida wetland definitions are coincident. The wetlands support sparse herbaceous and shrub cover with stunted and widely spaced planted slash pine (Photograph 2). The U.S. Department of Agriculture, Soil Conservation Service mapped soils in the vicinity of the Site 49 wetlands as "pits" in a soil survey completed in 1978 for areas within the City of Jacksonville (USDA, 1978). The soil survey defines this term as a "borrow pits" from which soil has been removed. The soils appear to have been graded in the past, either as part of constructing or operating the skeet range or to provide borrow. The soils are sandy with little or no topsoil.

According to ERS, the delineated wetland boundary has been flagged and surveyed but not yet officially verified by the COE or the St. John's Water Management District. The City of Jacksonville plans to apply for an official verification of the wetland delineation and to submit a Joint Permit Application requesting permits required to disturb wetlands, including wetlands on Site 49, to expand Lake Fretwell.

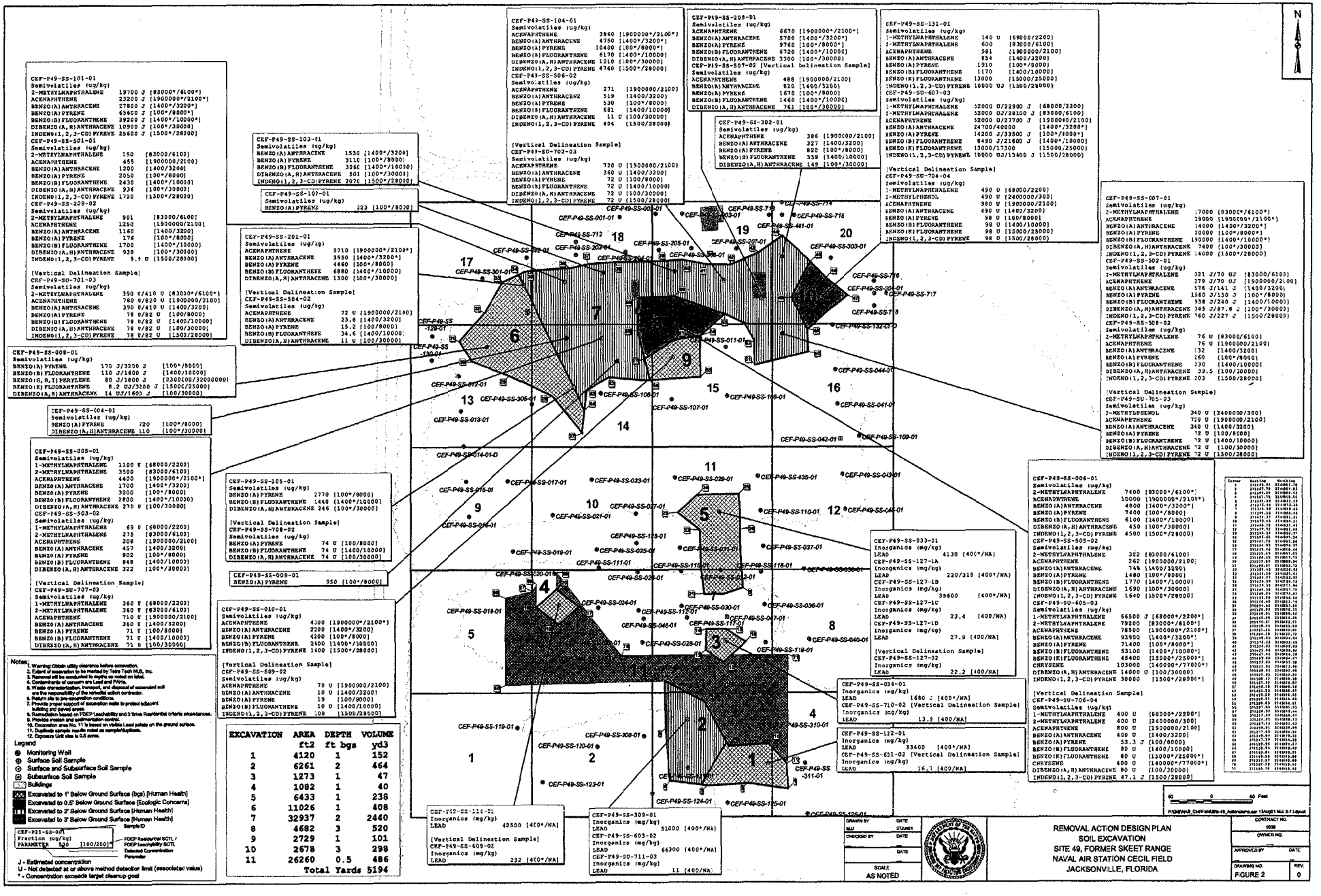
N
CEF-P49-SS-101-01
Semivolatiles (ug/kg)
2-METHYLNAPHTHALENE 19700 J [83000*/6100*]
ACENAPHTHENE 23200 J [1900000*/2100*]
BENZO(A)ANTHRACENE 27800 J [1400*/3200*]
BENZO(A)PYRENE 65600 J [100*/8000*]
BENZO(B)FLUORANTHENE 39200 J [1400*/10000*]
DIBENZO(A,H)ANTHRACENE 10900 J [100*/30000]
INDENO(1,2,3-CD)PYRENE 25600 J [1500*/28000]
CEF-P49-SS-501-01
Semivolatiles (ug/kg)
2-METHYLNAPHTHALENE 150 [83000/6100]
ACENAPHTHENE 455 [1900000/2100]
BENZO(A)ANTHRACENE 1200 [1400/3200]
BENZO(A)PYRENE 2050 [100*/8000]
BENZO(B)FLUORANTHENE 2430 [1400*/10000]
DIBENZO(A,H)ANTHRACENE 936 [100*/30000]
INDENO(1,2,3-CD)PYRENE 1720 [1500*/28000]
CEF-P49-SS-209-02
Semivolatiles (ug/kg)
2-METHYLNAPHTHALENE 901 [83000/6100]
ACENAPHTHENE 1250 [1900000/2100]
BENZO(A)ANTHRACENE 1160 [1400/3200]
BENZO(A)PYRENE 176 [100*/8000]
BENZO(B)FLUORANTHENE 1700 [1400*/10000]
DIBENZO(A,H)ANTHRACENE 938 [100*/30000]
INDENO(1,2,3-CD)PYRENE 9.5 U [1500/28000]
[Vertical Delineation Sample]
CEF-P49-SU-701-03
Semivolatiles (ug/kg)
2-METHYLNAPHTHALENE 390 U/410 U [83000*/6100*]
ACENAPHTHENE 780 U/820 U [1900000/2100]
BENZO(A)ANTHRACENE 390 U/410 U [1400/3200]
BENZO(A)PYRENE 78 U/82 U [100/8000]
BENZO(B)FLUORANTHENE 78 U/82 U [1400/10000]
DIBENZO(A,H)ANTHRACENE 78 U/82 U [100/30000]
INDENO(1,2,3-CD)PYRENE 78 U/82 U [1500/28000]
CEF-P49-SS-008-01
Semivolatiles (ug/kg)
BENZO(A)PYRENE 170 J/3200 J [100*/8000]
BENZO(B)FLUORANTHENE 110 J/1600 J [1400/10000]
BENZO(G,H,I)PERYLENE 80 J/1800 J [2300000/32000000]
BENZO(K)FLUORANTHENE 8.2 UJ/3300 J [1500/25000]
DIBENZO(A,H)ANTHRACENE 14 UJ/1600 J [100/30000]
CEF-P49-SS-004-01
Semivolatiles (ug/kg)
BENZO(A)PYRENE 720 [100*/8000]
DIBENZO(A,H)ANTHRACENE 110 [100*/30000]
CEF-P49-SS-005-01
Semivolatiles (ug/kg)
1-METHYLNAPHTHALENE 1100 U [68000/2200]
2-METHYLNAPHTHALENE 3100 [83000/6100]
ACENAPHTHENE 4400 [1900000*/2100*]
BENZO(A)ANTHRACENE 1700 [1400*/3200]
BENZO(A)PYRENE 3200 [100*/8000]
BENZO(B)FLUORANTHENE 2800 [1400*/10000]
DIBENZO(A,H)ANTHRACENE 270 U [100/30000]
CEF-P49-SS-503-02
Semivolatiles (ug/kg)
1-METHYLNAPHTHALENE 69 U [68000/2200]
2-METHYLNAPHTHALENE 275 [83000/6100]
ACENAPHTHENE 208 [1900000/2100]
BENZO(A)ANTHRACENE 457 [1400/3200]
BENZO(A)PYRENE 802 [100*/8000]
BENZO(B)FLUORANTHENE 849 [1400/10000]
DIBENZO(A,H)ANTHRACENE 322 [100*/30000]
[Vertical Delineation Sample]
CEF-P49-SU-707-03
Semivolatiles (ug/kg)
1-METHYLNAPHTHALENE 360 U [68000/2200]
2-METHYLNAPHTHALENE 360 U [83000/6100]
ACENAPHTHENE 710 U [1900000/2100]
BENZO(A)ANTHRACENE 360 U [1400/3200]
BENZO(A)PYRENE 71 U [100/8000]
BENZO(B)FLUORANTHENE 71 U [1400/10000]
DIBENZO(A,H)ANTHRACENE 71 U [100/30000]
CEF-P49-SS-103-01
Semivolatiles (ug/kg)
BENZO(A)ANTHRACENE 1530 [1400*/3200]
BENZO(A)PYRENE 3110 [100*/8000]
BENZO(B)FLUORANTHENE 3260 [1400*/10000]
DIBENZO(A,H)ANTHRACENE 501 [100*/30000]
INDENO(1,2,3-CD)PYRENE 2070 [1500*/28000]
CEF-P49-SS-102-01
Semivolatiles (ug/kg)
BENZO(A)PYRENE 323 [100*/8000]
CEF-P49-SS-201-01
Semivolatiles (ug/kg)
ACENAPHTHENE 5710 [1900000*/2100*]
BENZO(A)ANTHRACENE 3550 [1400*/3200*]
BENZO(A)PYRENE 4460 [100*/8000]
BENZO(B)FLUORANTHENE 6880 [1400*/10000]
DIBENZO(A,H)ANTHRACENE 1300 [100*/30000]
[Vertical Delineation Sample]
CEF-P49-SS-304-02
Semivolatiles (ug/kg)
ACENAPHTHENE 72 U [1900000/2100]
BENZO(A)ANTHRACENE 23.8 [1400/3200]
BENZO(A)PYRENE 15.2 [100/8000]
BENZO(B)FLUORANTHENE 34.6 [1400/10000]
DIBENZO(A,H)ANTHRACENE 11 U [100/30000]
CEF-P49-SS-105-01
Semivolatiles (ug/kg)
BENZO(A)PYRENE 2770 [100*/8000]
BENZO(B)FLUORANTHENE 1440 [1400*/10000]
DIBENZO(A,H)ANTHRACENE 246 [100*/30000]
[Vertical Delineation Sample]
CEF-P49-SS-706-02
Semivolatiles (ug/kg)
BENZO(A)PYRENE 74 U [100/8000]
BENZO(B)FLUORANTHENE 74 U [1400/10000]
DIBENZO(A,H)ANTHRACENE 74 U [100/30000]
CEF-P49-SS-009-01
BENZO(A)PYRENE 950 [100*/8000]
CEF-P49-SS-010-01
Semivolatiles (ug/kg)
ACENAPHTHENE 4300 [1900000*/2100*]
BENZO(A)ANTHRACENE 2200 [1400*/3200]
BENZO(A)PYRENE 4200 [100*/8000]
BENZO(B)FLUORANTHENE 2400 [1400*/10000]
INDENO(1,2,3-CD)PYRENE 1600 [1500*/28000]
[Vertical Delineation Sample]
CEF-P49-SS-509-02
Semivolatiles (ug/kg)
ACENAPHTHENE 70 U [1900000/2100]
BENZO(A)ANTHRACENE 10 U [1400/3200]
BENZO(A)PYRENE 19 [100/8000]
BENZO(B)FLUORANTHENE 10 U [1400/10000]
INDENO(1,2,3-CD)PYRENE 108 [1500/28000]
CEF-P49-SS-104-01
Semivolatiles (ug/kg)
ACENAPHTHENE 3860 [1900000*/2100*]
BENZO(A)ANTHRACENE 4750 [1400*/3200*]
BENZO(A)PYRENE 10400 [100*/8000*]
BENZO(B)FLUORANTHENE 6170 [1400*/10000]
DIBENZO(A,H)ANTHRACENE 1010 [100*/30000]
INDENO(1,2,3-CD)PYRENE 4740 [1500*/28000]
CEF-P49-SS-506-02
Semivolatiles (ug/kg)
ACENAPHTHENE 271 [1900000/2100]
BENZO(A)ANTHRACENE 519 [1400/3200]
BENZO(A)PYRENE 530 [100*/8000]
BENZO(B)FLUORANTHENE 681 [1400/10000]
DIBENZO(A,H)ANTHRACENE 11 U [100/30000]
INDENO(1,2,3-CD)PYRENE 404 [1500/28000]
[Vertical Delineation Sample]
CEF-P49-SU-702-03
Semivolatiles (ug/kg)
ACENAPHTHENE 720 U [1900000/2100]
BENZO(A)ANTHRACENE 360 U [1400/3200]
BENZO(A)PYRENE 72 U [100/8000]
BENZO(B)FLUORANTHENE 72 U [1400/10000]
DIBENZO(A,H)ANTHRACENE 72 U [100/30000]
INDENO(1,2,3-CD)PYRENE 72 U [1500/28000]
CEF-P49-SS-209-01
Semivolatiles (ug/kg)
ACENAPHTHENE 6670 [1900000*/2100*]
BENZO(A)ANTHRACENE 5780 [1400*/3200*]
BENZO(A)PYRENE 9760 [100*/8000*]
BENZO(B)FLUORANTHENE 6720 [1400*/10000]
DIBENZO(A,H)ANTHRACENE 3300 [100*/30000]
CEF-P49-SS-507-02 [Vertical Delineation Sample]
Semivolatiles (ug/kg)
ACENAPHTHENE 488 [1900000/2100]
BENZO(A)ANTHRACENE 820 [1400/3200]
BENZO(A)PYRENE 1670 [100*/8000]
BENZO(B)FLUORANTHENE 1460 [1400*/10000]
DIBENZO(A,H)ANTHRACENE 761 [100*/30000]
CEF-P49-SS-302-01
Semivolatiles (ug/kg)
ACENAPHTHENE 386 [1900000/2100]
BENZO(A)ANTHRACENE 327 [1400/3200]
BENZO(A)PYRENE 820 [100*/8000]
BENZO(B)FLUORANTHENE 538 [1400/10000]
DIBENZO(A,H)ANTHRACENE 149 [100*/30000]
CEF-P49-SS-131-01
Semivolatiles (ug/kg)
1-METHYLNAPHTHALENE 140 U [68000/2200]
2-METHYLNAPHTHALENE 600 [83000/6100]
ACENAPHTHENE 581 [1900000/2100]
BENZO(A)ANTHRACENE 854 [1400/3200]
BENZO(A)PYRENE 1910 [100*/8000]
BENZO(B)FLUORANTHENE 1170 [1400/10000]
BENZO(K)FLUORANTHENE 13000 [15000/25000]
INDENO(1,2,3-CD)PYRENE 10000 UJ [1500/28000]
CEF-P49-SU-607-03
Semivolatiles (ug/kg)
1-METHYLNAPHTHALENE 32000 U/22900 J [68000/2200]
2-METHYLNAPHTHALENE 32000 UJ/28100 J [83000/6100]
ACENAPHTHENE 32000 U/37700 J [1900000/2100]
BENZO(A)ANTHRACENE 24700/40000 [1400*/3200*]
BENZO(A)PYRENE 14200 J/33500 J [100*/8000*]
BENZO(B)FLUORANTHENE 8490 J/21600 J [1400*/10000]
BENZO(K)FLUORANTHENE 13000/17300 [15000/25000]
INDENO(1,2,3-CD)PYRENE 10000 UJ/13400 J [1500/28000]
[Vertical Delineation Sample]
CEF-P49-SU-704-04
Semivolatiles (ug/kg)
1-METHYLNAPHTHALENE 490 U [68000/2200]
2-METHYLPHENOL 490 U [240000/300]
ACENAPHTHENE 980 U [1900000/2100]
BENZO(A)ANTHRACENE 490 U [1400/3200]
BENZO(A)PYRENE 98 U [100/8000]
BENZO(B)FLUORANTHENE 98 U [1400/10000]
BENZO(K)FLUORANTHENE 98 U [15000/25000]
INDENO(1,2,3-CD)PYRENE 98 U [1500/28000]
CEF-P49-SS-007-01
Semivolatiles (ug/kg)
2-METHYLNAPHTHALENE 17000 [83000*/6100*]
ACENAPHTHENE 19000 [1900000*/2100*]
BENZO(A)ANTHRACENE 14000 [1400*/3200*]
BENZO(A)PYRENE 20000 [100*/8000*]
BENZO(B)FLUORANTHENE 190000 [1400*/10000*]
DIBENZO(A,H)ANTHRACENE 7400 [100*/30000]
INDENO(1,2,3-CD)PYRENE 14000 [1500*/28000]
CEF-P49-SS-502-01
Semivolatiles (ug/kg)
2-METHYLNAPHTHALENE 321 J/70 UJ [83000/6100]
ACENAPHTHENE 279 J/70 UJ [1900000/2100]
BENZO(A)ANTHRACENE 578 J/141 J [1400/3200]
BENZO(A)PYRENE 1560 J/150 J [100*/8000]
BENZO(B)FLUORANTHENE 938 J/240 J [1400/10000]
DIBENZO(A,H)ANTHRACENE 345 J/87.8 J [100*/30000]
INDENO(1,2,3-CD)PYRENE 760 J/227 J [1500/28000]
CEF-P49-SS-508-02
Semivolatiles (ug/kg)
2-METHYLNAPHTHALENE 76 U [83000/6100]
ACENAPHTHENE 76 U [1900000/2100]
BENZO(A)ANTHRACENE 132 [1400/3200]
BENZO(A)PYRENE 260 [100*/8000]
BENZO(B)FLUORANTHENE 230 [1400/10000]
DIBENZO(A,H)ANTHRACENE 39.5 [100/30000]
INDENO(1,2,3-CD)PYRENE 203 [1500/28000]
[Vertical Delineation Sample]
CEF-P49-SU-705-03
Semivolatiles (ug/kg)
2-METHYLPHENOL 360 U [2400000/300]
ACENAPHTHENE 720 U [1900000/2100]
BENZO(A)ANTHRACENE 360 U [1400/3200]
BENZO(A)PYRENE 72 U [100/8000]
BENZO(B)FLUORANTHENE 72 U [1400/10000]
DIBENZO(A,H)ANTHRACENE 72 U [100/30000]
INDENO(1,2,3-CD)PYRENE 72 U [1500/28000]
CEF-P49-SS-006-01
Semivolatiles (ug/kg)
2-METHYLNAPHTHALENE 7400 [83000*/6100*]
ACENAPHTHENE 10000 [1900000*/2100*]
BENZO(A)ANTHRACENE 4800 [1400*/3200*]
BENZO(A)PYRENE 7400 [100*/8000]
BENZO(B)FLUORANTHENE 6100 [1400*/10000]
DIBENZO(A,H)ANTHRACENE 450 [100*/30000]
INDENO(1,2,3-CD)PYRENE 4500 [1500*/28000]
CEF-P49-SS-505-02
Semivolatiles (ug/kg)
2-METHYLNAPHTHALENE 322 [83000/6100]
ACENAPHTHENE 262 [1900000/2100]
BENZO(A)ANTHRACENE 749 [1400/3200]
BENZO(A)PYRENE 1480 [100*/8000]
BENZO(B)FLUORANTHENE 1770 [1400*/10000]
DIBENZO(A,H)ANTHRACENE 1690 [100*/30000]
INDENO(1,2,3-CD)PYRENE 1640 [1500*/28000]
CEF-P49-SU-605-03
Semivolatiles (ug/kg)
1-METHYLNAPHTHALENE 56500 J [68000*/2200*]
2-METHYLNAPHTHALENE 79200 [83000*/6100*]
ACENAPHTHENE 78500 [1900000*/2100*]
BENZO(A)ANTHRACENE 93900 [1400*/3200*]
BENZO(A)PYRENE 71400 [100*/8000*]
BENZO(B)FLUORANTHENE 53100 [1400*/10000*]
BENZO(K)FLUORANTHENE 45400 [15000*/25000*]
CHRYSENE 103000 [140000*/77000*]
DIBENZO(A,H)ANTHRACENE 14000 U [100/30000]
INDENO(1,2,3-CD)PYRENE 30000 [1500*/28000*]
[Vertical Delineation Sample]
CEF-P49-SU-704-04
Semivolatiles (ug/kg)
1-METHYLNAPHTHALENE 400 U [68000*/2200*]
2-METHYLNAPHTHALENE 400 U [240000/300]
ACENAPHTHENE 800 U [1900000/2100]
BENZO(A)ANTHRACENE 400 U [1400/3200]
BENZO(A)PYRENE 53.3 J [100/8000]
BENZO(B)FLUORANTHENE 80 U [1400/10000]
BENZO(K)FLUORANTHENE 80 U [15000*/25000*]
CHRYSENE 400 U [140000*/77000*]
DIBENZO(A,H)ANTHRACENE 80 U [100/30000]
INDENO(1,2,3-CD)PYRENE 47.1 J [1500/28000]
CEF-P49-SS-033-01
Inorganics (mg/kg)
LEAD 4130 [400*/NA]
CEF-P49-SS-127-1A
Inorganics (mg/kg)
LEAD 220/315 [400*/NA]
CEF-P49-SS-127-1B
Inorganics (mg/kg)
LEAD 35600 [400*/NA]
CEF-P49-SS-127-1C
Inorganics (mg/kg)
LEAD 23.4 [400/NA]
CEF-P49-SS-127-1D
Inorganics (mg/kg)
LEAD 27.9 [400/NA]
[Vertical Delineation Sample]
CEF-P49-SS-127-02
Inorganics (mg/kg)
LEAD 22.2 [400/NA]
CEF-P49-SS-034-01
Inorganics (mg/kg)
LEAD 1680 J [400*/NA]
CEF-P49-SS-710-02 [Vertical Delineation Sample]
Inorganics (mg/kg)
LEAD 13.9 [400/NA]
CEF-P49-SS-122-01
Inorganics (mg/kg)
LEAD 33400 [400*/NA]
CEF-P49-SS-631-02 [Vertical Delineation Sample]
Inorganics (mg/kg)
LEAD 16.7 [400/NA]
CEF-P49-SS-114-01
Inorganics (mg/kg)
LEAD 42500 [400*/NA]
[Vertical Delineation Sample]
CEF-P49-SS-609-02
Inorganics (mg/kg)
LEAD 232 [400*/NA]
CEF-P49-SS-309-01
Inorganics (mg/kg)
LEAD 51000 [400*/NA]
CEF-P49-SS-603-02
Inorganics (mg/kg)
LEAD 64300 [400*/NA]
CEF-P49-SU-711-03
Inorganics (mg/kg)
LEAD 11 [400/NA]
Notes:
1. Warning: Obtain utility clearance before excavation.
2. Extent of excavation to be marked by Tetra Tech NUS, Inc.
3. Backfill will be conducted to depths as noted on label.
4. Contaminants of concern are Lead and PAHs.
5. Waste characterization, transport, and disposal of excavated soil are the responsibility of the remedial action contractor.
6. Return site to pre-excavation conditions.
7. Provide proper support of excavation walls to protect adjacent building and paved areas.
8. Remediation based on FDEP Leachability and 3 times Residential criteria exceedances.
9. Provide erosion and sedimentation control.
10. Excavation area No. 11 is based on visible Lead pellets on the ground surface.
11. Duplicate sample results noted as sample/duplicate.
12. Exposure Unit size is 0.25 acres.
Legend
Monitoring Well
Surface Soil Sample
Surface and Subsurface Soil Sample
Subsurface Soil Sample
Buildings
Excavated to 1' Below Ground Surface (bgs) [Human Health]
Excavated to 0.5' Below Ground Surface [Ecologic Concerns]
Excavated to 2' Below Ground Surface [Human Health]
Excavated to 3' Below Ground Surface [Human Health]
CEF-P31-SS-001 Sample ID
Fraction (ug/kg)
PARAMETER 520 [100/200] FDEP Residential SCTL / FDEP Leachability SCTL
Detected Concentration
Parameter
J - Estimated concentration
U - Not detected at or above method detection limit (associated value)
* - Concentration exceeds target cleanup goal
EXCAVATION AREA DEPTH VOLUME
ft2 ft bgs yd3
1 4120 1 152
2 6261 2 464
3 1273 1 47
4 1082 1 40
5 6433 1 238
6 11026 1 408
7 32937 2 2440
8 4682 3 520
9 2729 1 101
10 2678 3 298
11 26260 0.5 486
Total Yards 5194
60 0 60 Feet
DRAWN BY MJJ DATE 27Jan01
CHECKED BY DATE
DATE
SCALE AS NOTED
REMOVAL ACTION DESIGN PLAN
SOIL EXCAVATION
SITE 49, FORMER SKEET RANGE
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA
CONTRACT NO. 0039
OWNER NO.
APPROVED BY DATE
DRAWING NO. FIGURE 2
REV. 0

Table 1
Proposed Excavation Activities
Removal Action for NAS Cecil Field Site 49 (Former Skeet Range)

Area	Surface Area (Sq. Ft.)	Proposed Excavation Depth (Ft. Bgs)	Proposed Excavation Volume (Cu. Yd.)	Description
1	4,120	1	152	Slash Pine and scrub vegetation south of former skeet range
2	6,261	2	464	Slash Pine and scrub vegetation south of former skeet range
3	1,273	1	47	Slash Pine and scrub vegetation south of former skeet range
4	1,082	1	40	Slash Pine and scrub vegetation south of former skeet range
5	6,433	1	238	Slash Pine and scrub vegetation south of former skeet range
6	11,026	1	408	Old field vegetation in forest clearing formerly used as skeet range
7	32,937	2	2,440	Old field vegetation in forest clearing formerly used as skeet range
8	4,682	3	520	Old field vegetation in forest clearing formerly used as skeet range
9	2,729	1	101	Old field vegetation in forest clearing formerly used as skeet range
10	2,678	1	298	Old field vegetation in forest clearing formerly used as skeet range
11	26,260	0.5	486	Slash Pine and scrub vegetation south of former skeet range
TOTAL	99,481	N/A	5194	N/A

Sq. Ft.: Square Feet
Ft: Feet
Bgs: below ground surface
Cu. Yd.: Cubic Yards

EXCAVATION	AREA ft2	DEPTH ft bgs	VOLUME yd3
1	4120	1	152
2	6261	2	464
3	1273	1	47
4	1082	1	40
5	6433	1	238
6	11026	1	408
7	32937	2	2440
8	4682	3	520
9	2729	1	101
10	2678	3	298
11	26260	0.5	486
	Total Yards		5194

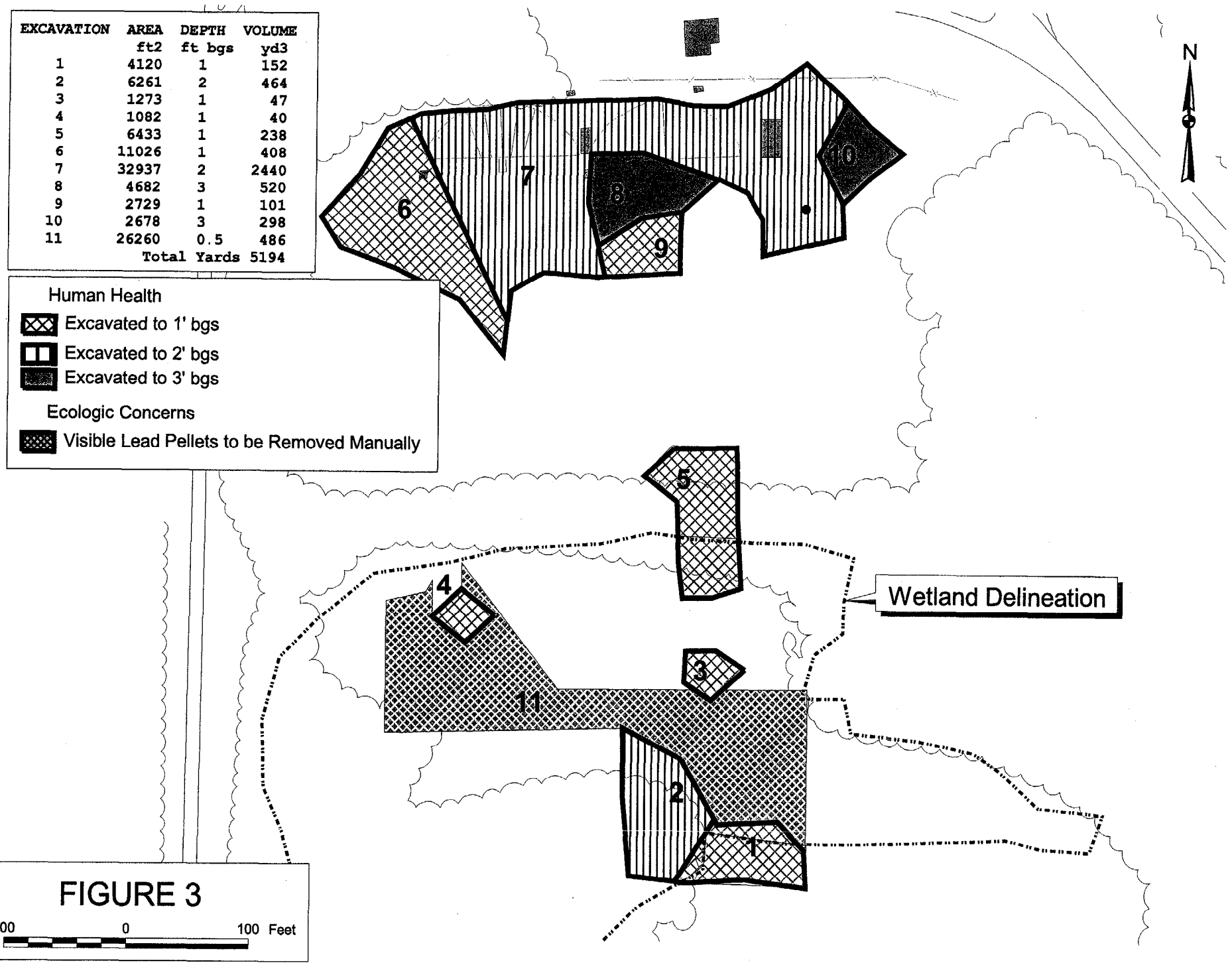

FIGURE 3

DRAWN BY MJJ	DATE 02Apr02	SITE 49, FORMER SKEET RANGE NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 0039
CHECKED BY	DATE		APPROVED BY — DATE —
COST/SCHEDULE-AREA			APPROVED BY — DATE —
SCALE AS NOTED			DRAWING NO. PHOTOGRAPH 2 REV 0

Anticipated Wetland Impacts: Excavation of contaminated soils from wetlands within Areas 1, 2, 3, 4, 5, and 11 will result in the removal of approximately 1,162 cubic yards of wetland (hydric) soil and the destruction of wetland (hydrophytic) vegetation from approximately 38,251 square feet (0.9 acre) of wetlands (Table 2). The excavation will be accomplished using backhoes or other mechanized construction equipment. It will not be possible to perform the excavation without first completely removing all trees and other vegetation growing in the affected areas. Because Areas 6 through 10 are not located in wetlands (Figure 3), their excavation will not disturb wetlands. As a beneficial impact, the removal action will decrease the exposure of vegetation and fauna in the remainder of the wetlands south of Site 49 to lead and other ecotoxic contaminants.

Proposed Wetland Mitigation: Because all of part of Areas 1, 2, 3, 4, 5, and 11 are located in wetlands, excavation and offsite disposal of contaminated soil is not possible without disturbing the wetlands. The wetland impacts resulting from the removal action are therefore unavoidable.

The Navy will minimize disturbance to wetlands during the removal action by staging excavation equipment outside of the wetlands. Prior to ground disturbance, the Navy will install silt fences around the perimeter of each area of soil contamination. The silt fences will minimize sedimentation of adjoining undisturbed wetlands during the removal action. The silt fences will be left in place until the excavated areas are vegetatively stabilized.

Because Site 49 would be subject to re-grading as part of the City of Jacksonville's proposed expansion of Lake Fretwell, the Navy does not propose to restore the affected wetlands to their baseline condition. Instead, the Navy would apply topsoil to a minimum depth (2 inches) to allow for vegetative stabilization of disturbed wetlands. Nowhere would the depth of applied topsoil exceed the existing grade. The Navy would then seed the affected areas with a mixture of indigenous wetland grasses, rushes, and forbs agreed upon in consultation with the FDEP.

Please call me at (301) 528-3089 if you have any questions regarding wetlands issues or Mark Jonnet at (412) 921-8622 if you have any general questions about the project.

Sincerely,

J. Peyton Doub

J. Peyton Doub, CEP, PWS
Professional Wetland Scientist #358

Table 2
Anticipated Wetland Impacts
Removal Action for NAS Cecil Field Site 49 (Former Skeet Range)

Area	Total Area (Sq. Ft.)		Volume of Soil Proposed for Excavation (Cu Yd.)		Area of Vegetation Proposed for Removal (Sq. Ft.)	
	Total	Wetlands	Total	From Wetlands	Total	From Wetlands
1	4,120	1,075	152	40	4,120	1,075
2	6,261	6,261	464	464	6,261	6,261
3	1,273	1,273	47	47	1,273	1,273
4	1,082	1,082	40	40	1,082	1,082
5	6,433	2,300	238	85	6,433	2,300
6	11,026	0	408	0	11,026	0
7	32,937	0	2,440	0	32,937	0
8	4,682	0	520	0	4,682	0
9	2,729	0	101	0	2,729	0
10	2,678	0	298	0	2,678	0
11	26,260	26,260	486	486	26,260	26,260
TOTAL	99,481	38,251	5,194	1,162	99,481	38,251

Sq. Ft.: Square Feet
Cu. Yd.: Cubic Yards

References

ABB-ES (ABB Environmental Services, Inc.). 1994. *Base Realignment and Closure Environmental Baseline Survey Report Naval Air Station (NAS) Cecil Field*. November.

TtNUS (Tetra Tech NUS). 2002a. *Engineering Evaluation/Cost Analysis for Operable Unit 5, Site 49, Former Skeet Range, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina. June.

TtNUS (Tetra Tech NUS). 2002b. *Action Memorandum for Operable Unit 5, Site 49 – Former Skeet Range at Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina. March 15.

USDA (U.S. Department of Agriculture). 1978. *Soil Survey of City of Jacksonville, Duval County, Florida*. Soil Conservation Service.