# EnSafe / Allen & Hoshall

a joint venture for professional services





*Program Management Office*
Shelby Oaks Plaza
5909 Shelby Oaks Dr.
Suite 201
Memphis, TN 38134
Phone (901) 383-9115
Fax (901) 383-1743

*EnSafe/Allen & Hoshall Branch Offices:*

Charleston
935 Houston Northcutt Blvd
Suite 113
Mt Pleasant, SC 29464
Phone (803) 884-0029
Fax (803) 856-0107

Cincinnati
400 TechneCenter Dr
Suite 301
[illegible]d, OH 45150
313) 248-8449
(513) 248-8447

Pensacola
2114 Airport Blvd
Suite 1150
Pensacola, FL 32504
Phone (904) 479-4595
Fax (904) 479-9120

Norfolk
303 Butler Farm Road
Suite 113
Hampton, VA 23666
Phone (804) 766-9556
Fax (804) 766-9558

Raleigh
5540 Centerview Drive
Suite 205
Raleigh, NC 27606
Phone (919) 851-1886
Fax (919) 851-4043

Nashville
311 Plus Park Blvd
Suite 130
Nashville, TN 37217
Phone (615) 399-8800
Fax (615) 399-7467

Dallas
[illegible]ller Drive
[illegible]26
Irving, TX 75038
Phone (214) 791-3222
Fax (214) 791-0405


**MEMORANDUM**

TO: Mark Taylor/David Porter, SOUTHDIV
Tonya Barker/Rob Williamson, NSA Memphis
Jack Carmichael, USGS
Brian Donaldson, EPA
Jim Morrison/Clint Willer, TDEC
Brenda Duggar, MSCHD
E/A&H Project Team

FROM: Lawson Anderson, E/A&H Task Order Manager LA

SUBJECT: Project Update #~~19~~ 20; NSA Memphis RFI; Millington, Tennessee; CTOs-094/106

DATE: April 18, 1996

**GROUNDWATER SAMPLING** — We are in our second full week of groundwater sampling and should finish before the end of next week. Included in the sampling are all Assembly A, Assembly E, and background monitoring wells. This is the first sampling event for the Assembly E wells, the eight new background wells, and the recently installed wells at SWMU 15, SWMU 21, and the apron area. This is the third event for the previously installed Assembly A wells.

USGS personnel have been onsite this week performing field analyses (e.g., dissolved oxygen) to collect water quality data from the wells that will be needed for assessing natural attenuation/bioremediation of Northside groundwater contamination.

**ASSEMBLY E SOIL/SEDIMENT DATA** — Validated analytical results have been received and summary tables are being prepared. The tables will be distributed when background reference concentrations have been recalculated based on inorganics data from the surface soil samples associated with the recently installed background wells. Now that we have more than 10 background locations, the background reference concentrations can be calculated statistically to determine upper tolerance limits, rather than using 2X mean background concentrations. This is an option the BRAC Cleanup Team (BCT) may want to discuss.

**FISH SAMPLING IN SEWAGE LAGOONS (SWMU 9)** — Five small (6-inch) and three large (10-inch) catfish (yellow or mud cats) were caught over a period of several days during the last week of March. The largest fish weighed about 1.5 pounds. Five fish were caught in the small lagoon and three in the large lagoon. Tissue analysis results should be received around the last week of April.

**SWMU 10 (NORTHSIDE LANDFILL-EASTERN PORTION) CSI** — The geophysical survey was completed this week. Preliminary analysis of the data suggests the following characteristics:

- a clearly defined cell in the southwest corner of the site
- a clearly defined cell at the western edge of the site
- mounded soil in the north-central part of the site with cables sticking out of the mounds
- scattered anomalies across the remainder of the site
- very little buried metal
- a non-uniform surface
- overall, the site appears to be more of a dump area than a true landfill

A color map of the interpreted geophysical survey results will be available for review during the BCT meeting next week. The geoprobe and hand auger sampling is scheduled for the week of April 29.

**OFFSITE SEDIMENT SAMPLING IN NORTH FORK CREEK** — The previously proposed sample will be collected during the SWMU 10 Confirmatory Sampling Investigation (CSI).

**GEOPROBE INVESTIGATION OF NORTH FUEL FARM (TANKS 336/337)** — A geoprobe soil and groundwater sampling investigation of the North Fuel Farm is being planned in response to a proposal by the Base Reuse Committee to use the tanks for non-potable water storage for fire protection. Details of the proposed investigation have been provided in a separate technical memorandum work plan. The investigation will be conducted in conjunction with the geoprobe work planned for the SWMU 10 CSI.

**SWMU 66 (RADAR DISPOSAL AREA)** — Several of the 11 soil samples collected tested positive for PAHs, pesticides, and total petroleum hydrocarbons-diesel range organics (TPH-DRO) at very low concentrations. One surface soil sample collected from around the drums on the side of the ravine tested positive for twelve PAHs. Three of the PAHs exceeded their residential RBC and one exceeded both its residential and industrial RBC. The TPH-DRO concentration for this sample was low (20 mg/kg). The other samples did not exceed RBCs.

**SWMU 67 (HORSE PASTURE DISPOSAL AREA)** — DynCorp has removed most of the debris. The following tanks/containers are still onsite and may need to be sampled:

- A 50-gallon waste oil tank containing sludge
- A 55-gallon drum containing what appears to be water
- Two 300-gallon, skid-mounted gasoline tanks (one with odor, one without); contents unknown as no stick was available for measuring through fill port (this needs to be done)
- A long aluminum cylinder with MOGAS scratched on the side and large rips in the metal

**SWMU 8 (CEMETERY DISPOSAL AREA)** — Though all of the additional samples collected recently for polychlorinated biphenyl (PCB) immunoassay screening tested negative for PCBs, relatively high polynuclear aromatic hydrocarbon (PAH) concentrations were detected in one of the samples collected from the soil piles at the site. Several of the PAHs exceeded both residential and industrial risk-based concentrations (RBCs). This comparison to RBCs is for informational purposes only, as the sample was collected at a depth greater than one foot so RBCs do not actually apply. The BCT may want to discuss whether the PAH contamination detected in the pile warrants further investigation.

**3-D DESKTOP MODEL OF GEOLOGY IN THE SWMU 7/APRON AREA** — Waiting on GPS data, boring logs, and downhole geophysical logs for recently installed wells. This might be completed by the May BCT/RAB meeting.

**TEM/GEOLOGICAL INFORMATION MAP OF SWMU 7/APRON AREA** — Waiting on GPS data, boring logs, analytical data, and water level measurements from the recently installed wells. This should be complete within one to two months.

**UPDATED TEM/BORING-BASED CONCEPTUAL MODEL OF BASE GEOLOGY** — The previously completed work is being updated to include the TEM and boring data collected on the Southside during the Assembly E field work. Target date for completion of this update is the end of June.

**3-D GEOSTATISTICAL COMPARISON OF UPPER AND LOWER FLUVIAL DEPOSITS GROUNDWATER DATA** — Will be completed upon receipt of validated analytical data for the recently installed wells that are being sampled this week.

**STATUS OF VOLUNTARY CORRECTIVE ACTIONS** — The status of the various removals planned as voluntary corrective actions is as follows:

SWMU 17 Removal of this underground waste tank (UWT) should take place in about two weeks. Revised pages for the work plan were mailed April 15.

SWMU 18 A work plan is being prepared for removal of this UWT and should be distributed next week.

SWMU 19 This UWT has been removed. Analytical results are pending.

SWMU 3 A work plan is being prepared for removal of the dry well and should be ready for distribution within the next 2 to 3 weeks.

SWMU 7 A work plan is being prepared for removal of the dry well and should be ready for distribution within the next 2 to 3 weeks.

Gas Pits A work plan for removal of the gasoline pits along the edge of the airfield apron is being prepared and should be ready for distribution within the next 2 to 3 weeks.

**STATUS OF DELIVERABLES** — An updated Deliverable Schedule table is being prepared for distribution next week. The status of some of the major documents is provided below.

Assembly A

| | |
|---|---|
| SWMU 1 | Navy/USGS reviewing draft |
| SWMU 3 | Final submitted to BCT |
| SWMU 5 | Navy/USGS reviewing draft |
| SWMU 7 | On hold pending further investigation results |
| SWMU 8 | Incorporating results of additional sampling; revised draft to Navy/USGS within 1 to 2 weeks |
| SWMU 60 | Incorporating results of additional sampling; revised draft to Navy/USGS within 1 to 2 weeks |

Assembly B

| | |
|---|---|
| SWMU 40 | BCT comments received; will include PRE when final is prepared |
| DITCHES | BCT comments received, except risk-related comments; will finalize Assembly B report upon receipt of risk-related comments |

Assembly C

| | |
|---|---|
| SWMU 15 | Will prepare RFI report after receipt of groundwater data |
| SWMU 21 | Will prepare RFI report after receipt of groundwater data |
| SWMU 26 | Will prepare final report upon receipt of validated surface soil data |
| SWMU 27 | Will prepare final report upon receipt of validated surface soil data |
| SWMU 62 | Will prepare final report upon receipt of validated surface soil data |

Assembly D

Draft CSI report should go to Navy/USGS sometime next week

Assembly E

Draft RFI report being prepared; waiting on groundwater data

Assembly F

Draft CSI work plan has been submitted to BCT

Assemblies G and H

Draft CSI work plans will be combined and prepared after approval of Assembly F work plan