

N00639.AR.002212
NSA MID SOUTH
5090.3a

TECHNICAL MEMORANDUM FIRST MOBILE ENHANCED MULTI--PHASE EXTRACTION
EVENT NAVY FLYING CLUB FORMER UNDERGROUND STORAGE TANKS 1205N AND
1205S MILLINGTON SUPPACT TN
4/12/1998
ENSAFE, INC.

Called Randy 1/23/98

TECHNICAL MEMORANDUM

TO: John Karlyk, SOUTHDIV
Randy Wilson, NSA Memphis
Project File 1128-001

FROM: Darrell Richardson, EnSafe, Inc.

DATE: April 12, 1998

RE: *Navy Flying Club, MEME Event No. 1*

The purpose of this technical memorandum is to present the results of the first Mobile Enhanced Multi-phase Extraction (MEME) event at the Navy Flying Club, Former USTs 1205N and 1205S Site (NFC), Naval Support Activity Memphis, Millington, Tennessee, on March 2, 1998.

Approval for the MEME event was granted by the Tennessee Department of Environment and Conservation, Division of Underground Storage Tanks (Division). EcoVac Services from Kennesaw, Georgia, performed the MEME event.

Matt Wittich (EcoVac) arrived at the site at 8:00 a.m. Water and separate phase hydrocarbon (SPH) levels were checked by Mr. Wittich prior to the MEME event. SPH was not detected in any of the monitoring wells (MWs) at the site. Groundwater levels are shown in the EcoVac Enhanced Fluid Recovery (EFR) Results report included as an attachment.

Stingers (1-inch PVC pipe to carry fluid) were placed at the air/groundwater interface in MWs 3, 5, and 6 (extraction wells). Vacuum extraction began at approximately 9:00 am from these points. Fluid recovery was noticed in all MWs upon start-up of the vacuum pump.

Per Technical Guidance Document 16 (TGD-016), monitoring of the vacuum, air velocity, stack gas temperature, total flow, off gas concentrations, and radius of influence were

recorded by Mr. Wittich. This data is shown in the EcoVac report.

Vacuum extraction was terminated at 4:30 p.m., and water levels were taken in all MWs. These measurements are also included in the EcoVac report. No SPH was detected in any of the MWs upon completion of the event. Approximately 736 gallons of fluid were recovered during the event. All recovered fluid was discharged into an oil/water separator located at NSA Memphis, approximately 1 mile from the site.

A calculated total of approximately 5 pounds of carbon (approximately equivalent to 6 pounds of petroleum hydrocarbons) were removed during the event. Vacuum influence was not detected at nearby MWs during the event, however, groundwater drawdown was detected in MWs at distances of 35, 40, and 65 feet from the extraction wells.

A detailed report of the event prepared by EcoVac is enclosed.