



DEPARTMENT OF THE NAVY

NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
BUILDING 77L, U.S. NAVAL BASE
PHILADELPHIA, PENNSYLVANIA 19112-5094

IN REPLY REFER TO

5090
Ser 1621/1823/FL

16 APR 1992

State of Rhode Island and Providence Plantations
Department of Environmental Management
Division of Air and Hazardous Materials
Attn: Ms. Cynthia Signore
291 Promenade Street
Providence, RI 02908-5767

RE: Investigation of Soil Contamination Resulting from Tanks
53 & 56 at Tank Farm 5, NETC, Newport, RI

Dear Ms. Signore:

The Navy has incorporated your suggestions and recommendations from your 16 March 1992 letter addressing the Navy's draft proposed soil investigation statement of work for tanks 53 and 56 dated 20 February 1992. Enclosed find the revised soil investigation statement of work dated 15 April 1992. So as to not delay this action any longer, the Navy plans to initiate the contract process for the revised soil investigation statement of work on 27 April 1992. In you have any additional comments on the 15 April 1992 revised statement of work please provide a response before 27 April 1992.

If you have any questions or need some additional information I can be reached at (215) 897-6280.

F. A. La Greca
F. A. LA GRECA
Remedial Project Manager
By direction of the Commanding Officer

Encl:

- (1) Draft soil investigation statement of work for tanks 53 and 56 date 15 April 1992.

Copy to:
NETC 40E
EPA REG I, Ms C. Keating

3376

Blind copy to:(w/o encl)

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15 APRIL 1992

**AMENDMENT #15 TO APPENDIX "A"
CONTRACT N62472-86-C-1282**

**TITLE: Investigation of Soil Contamination Resulting from Tanks
53 & 56 at Tank Farm 5**

LOCATION: NETC Newport, RI.

GENERAL SCOPE OF WORK:

The A/E shall execute an investigation that will determine the horizontal and vertical extent of soil contamination resulting from past releases of hazardous substances from Tanks 53 & 56. The Investigation shall provide supportive information necessary to determine the extent of soil contamination around Tanks 53 and 56. This information will be utilized to proceed with soil remediation in accordance with RIDEM's requirements for Closure of Tanks 53 and 56.

AREA OF INVESTIGATION:

All initial sampling shall be limited to a distance of 100 feet from the outside edge of each of the tanks 53 & 56 (with the exception of background samples). Background samples will be located based on a thorough evaluation of the Tank Farm 5 area so that "representative" uncontaminated samples may be taken. If there are indications that contamination from tanks 53 & 56 extends beyond the "100 foot zone" as evidenced in the field by the use of screening instrumentations, visual signs, or field chemical analysis, then the 100 foot zone will be extended so that the full extent of contamination can be determined.

SPECIFIC TASKS: The A/E shall perform the following tasks:

Task 1: Develop a Sampling and Analysis Plan. (Note: The Sampling and Analysis Plan (SAP) will be presented/explained as a separate section in the draft and final report along with the data collected.). The Field Sampling effort shall address the following considerations:

- (a) Define the sampling program that will be used to assess the nature and extent of soil contamination resulting from Tanks 53 & 56.
- (b) Determine a strategy for determining background concentrations for each contaminant identified. Identify suitable locations for background samples.
- (c) Provide Size D maps in the reports indicating sampling locations.
- (d) Provide the rationale for selecting sampling locations, methods, depths, etc.

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- (e) Provide a plan which addresses the storage and disposal of field generated waste such as drill cuttings, decontamination water, etc.
- (f) The A/E shall be limited to a total of 43 soil borings. Of the 43 borings, three (3) will be used to establish background concentrations.
- (g) Continuous split spoon sampling will be collected and the three most highly contaminated split spoon samples will be analyzed for each boring. Prior to initiating fieldwork, the A/E shall propose a methodology for determining which of the split spoon samples from each boring are most highly contaminated. A maximum of 3 split spoon samples per boring will be collected and analyzed. The required chemical analyses are specified under task (6) below and were selected based on the products which were stored in Tanks 53 and 56. It should be noted that Total Petroleum Hydrocarbon (TPH) analysis will be the primary analytical parameter for determining the existence of soil contamination. If TPH levels are detected above the 100 ppm level specified by RIDEM and defined under task 8, then additional soil borings will be performed to determine the extent of contamination. Those samples which indicate TPH values in excess of 100 ppm will undergo additional analyzes for individual contaminants using the TCLP procedure so that waste characterization and subsequent remediation can proceed expeditiously.

SOIL GAS SURVEY

In order to expedite this investigation, and to provide a more productive "Sampling and Analysis Plan (SAP) Meeting " specified under Task 2, the Navy is specifying the following soil gas survey:

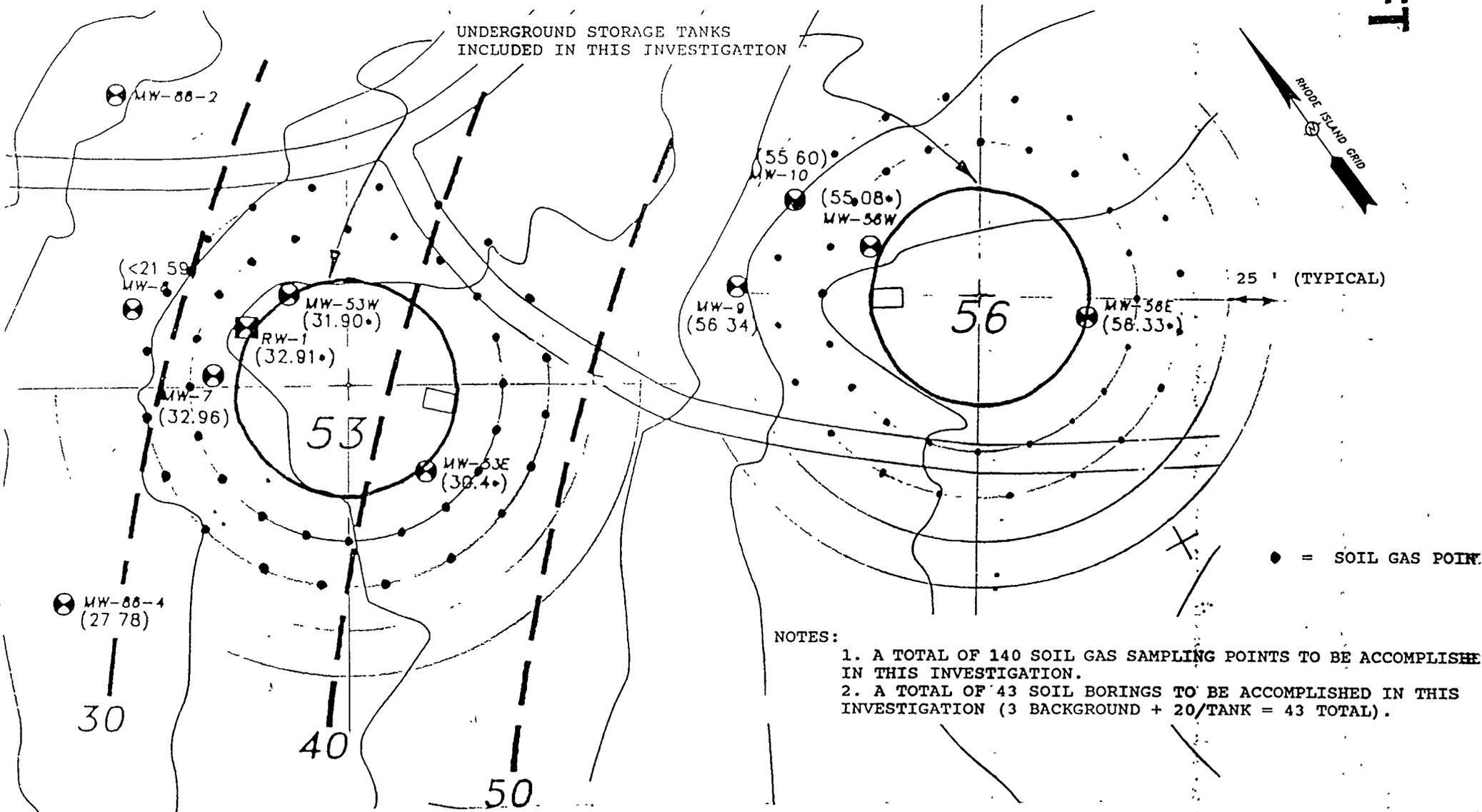
Note: (The A/E can present an alternative soil gas sampling plan if the A/E's plan demonstrates greater benefit with regards to the overall site characterization and remediation goals for this site.)

METHODOLOGY

The A/E shall conduct a soil gas survey prior to the SAP meeting. Results from the soil gas survey will then be plotted on a map along with proposed locations for the soil borings. This map will be forwarded to RIDEM and EPA prior to the SAP meeting (see schedule under Task 9). The specific methodology for conducting the soil gas survey will be determined by the A/E based on their intuitive knowledge and familiarity with the inherent geological characteristics of the site. [The Navy does require, however, that probes to collect the soil gas be driven rather than placed in an augered hole]. In addition, a field Gas Chromatograph (GC) shall be used to analyze the soil gas samples. The field GC shall be capable of detecting 50 parts per billion or less of various volatile organic contaminants which may be present in the vicinity of tanks 53 and 56. Calibration of the instrument shall be accomplished daily (or more frequently as required) and must

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UNDERGROUND STORAGE TANKS
INCLUDED IN THIS INVESTIGATION



● = SOIL GAS POINT

- NOTES:
1. A TOTAL OF 140 SOIL GAS SAMPLING POINTS TO BE ACCOMPLISHED IN THIS INVESTIGATION.
 2. A TOTAL OF 43 SOIL BORINGS TO BE ACCOMPLISHED IN THIS INVESTIGATION (3 BACKGROUND + 20/TANK = 43 TOTAL).

INVESTIGATION OF SOIL CONTAMINATION RESULTING
FROM TANKS 53 & 56 AT TANK FARM 5

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include a minimum of 5 tracer compounds (those compounds most likely to be detected in the soil).

SOIL GAS SAMPLING LOCATIONS

The configuration for soil gas sampling locations has been provided on the enclosed map. From the map, four concentric rings can be seen extending out from the edge of each of tanks 53 & 56. Each of these rings is located at a distance of approximately 25 feet from the next. Twenty (20) sampling points have been indicated for each of the first two rings around each tank, ie. at distances of 25 feet and 50 feet respectively from the outer edge of each tank wall. Because of the arrangement and large number of sampling points surrounding the tanks, it is likely that any past releases of volatile substances from these tanks will be detected. [In addition, the A/E will accomplish another 20 soil gas points for each of the tanks to better define any potential plumes as required.]

Since soil gas is only a "screening tool" the A/E will be required to confirm that areas which have no significant soil gas readings are "free and clean" of contamination resulting from past releases from tanks 53 & 56. This shall be accomplished through the analysis of soil boring samples, the locations of which shall be determined by the A/E after the soil gas survey.

SOIL GAS SAMPLING DEPTHS

The A/E shall accomplish soil gas samples/analysis from a minimum of three (3) discrete depths in the overburden material for each of the sampling locations. The greatest depth for which a soil gas probe shall be driven will be to the top of the uppermost water table piezometric level or to the top of the weathered bedrock layer, whichever is encountered first. It is understood that shale fragments or small cobbles may be present in the overburden material and that these may impede the progress of the soil gas investigation. The A/E shall employ methods which maximize the driven depth of the probes. If the A/E is unable to accomplish this survey due to the inability to drive the probes into the overburden material, then work shall be stopped and an alternate approach shall be proposed and approved by the Navy.

Task 2: Sampling and Analysis Plan Meeting. The A/E shall attend a Meeting at NETC Newport to present the SAP prior to the drilling/soil sampling of field borings. The participants of the meeting will be the Navy, RIDEM, and EPA Region I. The objective of this meeting is to agree on the background sample locations and the boring locations. (The SAP will be presented in the form of maps, figures, hand outs, bullet charts, etc.).

Task 3: Modify the Sampling and Analysis Plan. The A/E shall modify the SAP as per the Navy's direction based on the Navy, RIDEM, and EPA's agreed upon comments generated at the above mentioned meeting.

Task 4: Health and Safety Plan. Prior to the initiation of the fieldwork, the A/E shall develop a site specific health and safety plan which, as a minimum, fulfills the requirements and intent of 29 CFR 1910.120. Wherever possible, elements of the Health and Safety Plan used during the RI Work previously accomplished by the A/E shall be used.

Task 5: Quality Assurance/Quality Control. Prior to the initiation of the fieldwork, the A/E shall modify the existing QA/QC used during the RI Work to meet site specific concerns. Wherever possible, elements of the QA/QC plan used during the RI Work previously accomplished by the A/E shall be used. As a minimum, this plan should contain those elements suggested for Quality Assurance Project Plans in Reference 6. Data validation shall be EPA Level IV and accomplished by a third party data validation company for the following analysis parameters only; TCL VOCs, TCL BNAs, TCL Pesticide/PCBs, and TAL Metals. Laboratory and Data Validation shall be accomplished in accordance with the Guidelines specified in references 1 through 5. The modified QA/QC plan and the third party data validation reports shall be a deliverable document with the draft and final report.

Task 6: Laboratory analysis parameter table. The A/E shall analyze the samples collected based on the following chart.

ANALYSIS PARAMETER	BACKGROUND SAMPLES	BORING SAMPLES	DUPLIC. SAMPLES	BLANKS (see note)	TOTAL SAMPLES
TCL VOC	9		1	10	20
TCL BNA	9		1	4	14
TCL PEST/PCB	9		1	4	14
TAL METALS	9		1	4	14
TPH		120	13	4	137
TCLP	9	20			29

Note: Samples include trip blanks, source water blank, field blanks)

Task 7: Draft and Final report. The A/E shall produce a draft and final report which presents the investigation's generated data. Based on the field/laboratory data, the A/E shall specify in the report the horizontal and vertical extent of soil contamination resulting from past releases of hazardous substances from Tanks 53 & 56. This information will be utilized

to proceed with soil remediation in accordance with RIDEM's requirements for Closure of Tanks 53 and 56. If future studies and investigations are required (because the soil contamination extent has not been defined well enough), the A/E shall provide recommendations and a rationale for how they should be accomplished.

Task 8: Preliminary alternatives for soil remediation.

The A/E shall provide preliminary alternatives for remedial actions related to the areas of soil contaminated as a result of past releases of hazardous waste from Tanks 53 & 56. In order to determine which soils require remediation, the A/E shall propose cleanup levels for contaminants that exceed the TCLP limits. A rationale for the selection of these cleanup levels shall also be presented by the A/E.

Based solely on the results of the TPH analysis, two distinct cleanup levels for TPH shall be examined. The two cleanup levels for TPH are 100 ppm and 300 ppm based on the classification of the area as being considered "sensitive" or "non-sensitive". The A/E shall propose cleanup alternatives for each of these TPH levels, including a preliminary cost estimate which accounts for all present and future costs associated with the remediation proposed. In addition, the A/E shall present a rationale as to which cleanup level is appropriate, ie. whether the site should be considered a sensitive or non-sensitive area.

The volume and spatial locations of the contaminated soils shall be identified in the report as accurately as possible. If the soil volume is not determined then a soil volume range should be established. The A/E shall utilize information derived from this investigation, as well as any other reports/studies which provide information related to contamination around Tanks 53 and 56 to formulate recommended soil remediation alternatives.

Task 9: Project Schedule. Provide a detailed schedule with milestones that indicate the time periods required to initiate and complete the individual elements of the proposed field work.

SCHEDULES:

Initiate Soil Gas Survey	7 days after contract award
Generate Soil Gas Map/ Proposed Boring Locations & Forward to Navy, RIDEM, EPA	21 days after contract award
SAP Presentation Meeting	28 days after contract award
Initiate Field Work for	35 days after contract award

Soil Borings

Draft Investigation Report 80 days after contract award
Final Investigation Report 120 days after contract award

DELIVERABLES:

Soil Gas/Soil Boring Map
Northern Division -----> 3 copies
NETC Newport -----> 2 copies
EPA Region I -----> 4 copies
RIDEM -----> 4 copies

Total -> 13 copies

Draft Investigation Report Submission:
Northern Division -----> 3 copies
NETC Newport -----> 2 copies
EPA Region I -----> 4 copies
RIDEM -----> 4 copies

Total -> 13 copies

Final Investigation Report Submission:
Northern Division -----> 4 copies
NETC Newport -----> 2 copies
EPA Region I -----> 4 copies
RIDEM -----> 4 copies

Total -> 14 copies

REFERENCES: (See Note)

1. "National Oil and hazardous Substance Contingency Plan"; 40 CFR 300, U.S. Environmental Protection Agency, 1990.
2. "U.S. Environmental Protection Agency Contract Laboratory Program Statement of Work for Organic Analysis" (USEPA), 1988.
3. "U.S. Environmental Protection Agency Contract Laboratory Program Statement of Work for Inorganic Analysis" (USEPA), 1989.
4. "Region I Laboratory Data Validation: Functional Guidelines for Evaluating Organic Analysis" (USEPA) 1988.
5. "Region I Laboratory Data Validation: Functional Guidelines for Evaluating Inorganic Analysis" (USEPA) 1989.
6. "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" (USEPA), 1988.

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7. 40 CFR 265

8. "Tank Closure Investigation-Tanks 53 and 56-Tank Farm 5" (TRC Environmental Consultants, Inc.) 1991.

9. " Draft Final Report, Remedial Investigation, Naval Education and Training Center, Newport, Rhode Island" (TRC Environmental Consultants, Inc.) 1991.

NOTE:

The above references 1 through 7 indicate a partial list of guidelines to be followed throughout this investigation. It should be noted that the most current versions, addendum, supplements, etc. shall be followed. In addition, it is understood that the requirements, implementation, and methodologies utilized in this investigation shall comply with all appropriate Federal, State, and Local Environmental Regulations.

TRANSMISSION REPORT

215-897-6199

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PAGES INCLUDING COVER: 11

FROM: _____

TO: _____

NAME F. LA GRECA

NAME C. KEATING

CODE 1823

ACTIVITY EPA REGION I

PHONE# 215-897-6280

CODE HAN-CAN I

FAX# 617-573-9662

MESSAGE:

*Carol, this is an advance copy of letter to RIDEM
addressing their comments and yours to the SOW for
the soil investigation around tanks 53 and 56 @ TFS.
Please provide your suggestions, by phone if possible APAS.*

*Thank-you,
Frome.*