PROJECT PROPOSAL

RMT, Inc. proposes to provide consulting services to Aratex Services, Inc. at their facility at 330 Chestnut Street, Oakland, California with respect to: 1) investigate the current subsurface conditions with regard to the lateral and vertical extent of diesel fuel contamination near the location at a former underground storage tank, and 2) assess the possibility and potential that contamination found in and around the former tank originated from an off-site source.

This proposal packet consists of the following documents which, if the Project Proposal is signed, shall constitute the contract:

a) This PROJECT PROPOSAL
b) A Scope of Services Section
c) General Terms and Conditions of Contract
d) Change Orders that may be made at various times throughout the project
e) Other Documents, as the parties may hereafter agree and identify in writing.

SCOPE OF SERVICES
ARATEX SERVICES, INC.
OAKLAND, CALIFORNIA

PROJECT ELEMENT: **SUBSURFACE INVESTIGATION AND ASSESSMENT OF CONTAMINATION IN FORMER BOILER FUEL TANK LOCATION**

OBJECTIVE:

To evaluate subsurface fuel contamination and the potential for off-site sources to have contributed to the contamination.

PROJECT BACKGROUND:

Aratex Services has requested that RMT submit a proposal to conduct a subsurface soil and ground water investigation at their facility in Oakland, California. A subsurface investigation will be performed to determine the lateral and vertical extent of contamination in an area that previously contained an underground diesel fuel tank. A previous investigation at the site included the collection of two soil samples during removal of the tank. Subsequent laboratory analyses indicated that both of the samples were contaminated. One sample, taken from the vent end of the tank, contained 6,900 mg/kg TPH (as diesel) and 3,000 mg/kg oil and grease. The second sample, taken from the fill end of the tank, contained 8,100 mg/kg of TPH (as diesel) and 3,700 mg/kg oil and grease.

Further investigation is needed in and around the tank area to assess the level and extent of contamination both above and below the water table. The following proposal describes RMT's scope of services for performing the additional investigation.

SCOPE OF SERVICES:

RMT proposes to perform the following tasks:

1) Review regional and local hydrogeology (as available) for the purpose of characterizing the Aratex site with respect to the direction of ground water flow and general hydrogeologic conditions. Regional information would include data from studies completed in Alameda County; local information includes data collected and published within a few miles of the Aratex site. This task will be completed by reviewing and examining readily available data collected by such agencies as the U.S. Geological Survey, Alameda Department for Public Works and the Regional Water Resources Control Board. Also, agency information on previously completed, local soil or ground water investigations will be requested. If possible, the agency case files will be reviewed for local sites believed to be potential contamination sources.

2) Auger six (6) soil borings to a maximum depth of 20 feet or until the first occurrence of ground water. It is anticipated that ground water will be encountered in the borehole at some depth less than 20 feet below ground surface (Alameda County Flood Control and Water Conservation District, ACFCWCD,[1] 1988). Four (4) of these borings will be completed as ground-water monitoring and sampling wells and, as such, will be augured deeper, as described in item 3 below. The soil borings will be located in areas which should provide additional information about the extent and concentration of contaminants in and around the tank area. The two (2) boreholes not completed as ground-water monitoring wells will be backfilled with cement grout. Augering will be accomplished with truck-mounted hollow-stem augers. During augering, soil samples will be collected from each borehole beginning at depths of 10 to 12 feet below ground surface and at approximate 5-foot vertical intervals thereafter until ground water is encountered.

3) Soil samples will be collected in accordance with recommended procedures outlined in the LUFT Field Manual (SWRCB, 1988) and/or the Tri-Regional Guidelines (1988) that include input by the San Francisco Bay Regional Water Quality Control Board. Soils will be visually inspected and logged according to the Unified Soils Classification System. Soil samples will be

[1] ACFCWCD, Geohydrology and Groundwater-Quality Overview of the East Bay Plain Area, Alameda County, California, 205(j) Report; June 1988

collected with a split-barrel sampler lined with brass rings.

One sample per five-foot interval will be analyzed by a California certified laboratory for total petroleum hydrocarbons (TPH) as diesel; benzene, toluene, total xylenes and ethyl benzene (BTX&E) by EPA method 8020, and for oil and grease by EPA method 503E. Soil cuttings associated with the augering operation will be drummed and labeled. RMT will determine proper disposal of the waste after it has been characterized.

4) Install groundwater monitoring wells in four of the borings. The monitoring wells are being placed in an attempt to define the limits of ground water contamination beneath the site as well as determine the direction of ground water flow and evaluate upgradient water quality. Two (2) wells will be located downgradient of the storage tank pit, one well will be located in the center of the former tank pit and one well will be positioned in an upgradient direction as defined by the regional information. The wells will be constructed of threaded, 2-inch, PVC pipe with 15-foot slotted screens set approximately 10 feet below the water table. A 15-foot length is used in order to assure that the screen is open to both the saturated and unsaturated zones as seasonal effects or tidal variations are likely to result in changes in water-level altitudes. A screen open to both saturated and unsaturated conditions allows collection and sampling of the free floating hydrocarbons on top of the ground water surface. Each monitoring well will be constructed with a locking protective casing or flush mounted cover. Wells will be adequately developed to remove most suspended solids following their installation. RMT will obtain the necessary permits from the Alameda County Zone 7 Flood Control Water Conservation District.

   Water removed from the wells during purging and development will be drummed and left at the site for appropriate disposal as determined by sampling and laboratory analysis. Ground water levels will be measured and recorded. The occurrence of free product will be noted if present.

5) Collect one round of ground water samples from the four (4) wells and analyze for BTX&E EPA method 8020 and TPH as diesel. Water samples will be analyzed by a California certified laboratory.

6) Evaluate and interpret data obtained during the subsurface investigation. Data analyses will include the evaluation of laboratory results as related to the extent and source of contamination beneath the Aratex property. RMT will evaluate the direction of ground water flow.

OUTPUT:

Upon completion of the data analyses, a draft report will be provided to Aratex. The interpretive report will include:

A) A description of field methods;
B) Details of well construction;
C) A water table map;
D) A geologic cross section;
E) A tabulation of laboratory results; and
F) Recommendations for additional work, if necessary.

ASSUMPTIONS:

- Underground utility locations will be provided by Aratex via site maps. (See Attachment A)

- Employee health and safety protection will be Level D. Higher costs may be incurred if greater levels of protection are required.

- Cost does not include costs associated with disposal of drill cuttings or purged ground water. These costs will be determined after the soil/ groundwater is characterized by RMT.

- A maximum of 12 soil samples will be collected from the 6 boreholes. Samples are anticipated to be collected at approximate depths of 10 to 12, and 15 to 17 feet below the ground surface. The samples will be analyzed for TPH, BTX&E and oil and grease.

- A maximum of four ground-water samples will be taken from the wells. The samples will be analyzed for TPH and BTX&E. A trip blank will also be analyzed.

- Permission to place soil borings or ground water wells on property not owned by Aratex (if necessary), is granted. Written approval from the property owner will be obtained before drilling begins. Additional costs will be incurred if locations of proposed wells require special permits, casings, grouting or pavement patching.

- Review of geology and hydrogeology from various agencies will take a maximum of two days.