Chevron U.S.A. Products Company
2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

April 6, 1993

STID 1143

Ms. Susan Hugo
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station No. 9-0329
340 Highland Avenue, Piedmont, California

Dear Ms. Hugo :

Enclosed is a work plan from RESNA dated April 6, 1993 for your approval. This work plan discusses the additional investigation to be conducted at the above referenced site.

Briefly, four borings will be advanced using a hand-auger. These borings will then be converted into temporary wells which samples will be obtained and analyzed after the wells have been purged. In addition to water samples, soil samples will also be taken and analyzed.

For additional information, please refer to the report. If you have any questions or comments, please feel free to contact me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

Kenneth Kan
Engineer

LKAN/MacFile 9-0329R6

Enclosure

cc: Mr. Rich Hiett, RWQCB-San Francisco Bay Area
2101 Webster Street, Suite 500, Oakland, CA 94612

Ann Gaffney Shores, Esq., Mandel, Budder, & Jacobsen
101 Vallejo Str., San Francisco, CA 94111

Mir Ghafari, Chevron Service Station
340 Highlands Ave., Piedmont, CA 94611

Ms. Bette Owen, Chevron U.S.A. Products Co.

RESNA
Working To Restore Nature

73 Digital Drive
Novato, CA 94949
Phone: (415) 382-7400
FAX: (415) 382-7415

April 6, 1993

Mr. Kenneth Kan
Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583-0804

Subject: Work Plan for Evaluation of Soil and Groundwater at Chevron Service Station No. 9-0329, 340 Highland Avenue, Piedmont, California.

Mr. Kan:

At the request of Chevron U.S.A. Products Company (Chevron), RESNA Industries Inc. (RESNA) has prepared this work plan for performing a subsurface environmental investigation at the subject site. The site location is shown on Plate 1. The purpose of this investigation is to evaluate whether petroleum hydrocarbons are present in soil and groundwater offsite. Chevron's scope of work for RESNA includes the following:

- Advancing four soil borings using a hand auger.
- Installing new temporary groundwater monitoring well casing in each soil boring, sampling soil and groundwater, submitting selected soil and groundwater samples for laboratory analyses, removing temporary well casing from the borings following collection of groundwater samples, and grouting the borings.
- Performing a survey of water wells in the site vicinity, performing an off-site source investigation, and preparing a report.

RESNA will perform the following work for this investigation:

SITE-SPECIFIC HEALTH AND SAFETY PLAN / BACKGROUND REVIEW / PERMITTING

A Site-Specific Health and Safety Plan will be prepared by RESNA as required by the Occupational Health and Safety Administration (OSHA) Standard "Hazardous Waste Operations and Emergency Response" guidelines (29 CFR 1910.120). The Site-Specific Health and Safety Plan will be prepared by RESNA personnel, following a complete review of site conditions and any existing Site-Specific Health and Safety Plans for the site with the Project Manager. The document will be reviewed by RESNA personnel and subcontractors performing work at the site. A copy of the Site-Specific Health and Safety Plan will be kept at the work site and will be available for reference by appropriate parties during the work. The RESNA geologist will act as the Site Safety Officer.

We understand from conversations with Chevron personnel that previous environmental investigations have been performed at the site. Gettler-Ryan installed four groundwater monitoring wells (C-1 through C-4) in January 1983. GeoStrategies Inc. drilled six exploratory soil borings at the site in November 1990. Concentrations of gasoline hydrocarbons have been detected in groundwater samples collected from monitoring well C-2, located adjacent to the waste oil underground storage tank.

All applicable local and State permits pertaining to the proposed work will be obtained before commencing field work.

SOIL BORINGS / SAMPLING AND ANALYSES

RESNA will advance four soil borings (B-1 through B-4) using a 3 inch diameter hand auger. The locations of all proposed borings are shown on Plate 2. Proposed borings B-1 through B-4 will be drilled to approximately 5 feet below the first encountered groundwater. First groundwater is anticipated to occur at approximately 5 feet below ground surface. All borings will be backfilled with a cement/bentonite slurry. The hand auger will be cleaned with a solution of Alconox and rinsed with de-ionized water between each boring, and all sampling equipment will be rinsed with a solution of Alconox and tap water between sample intervals. We anticipate field operations to be completed within two days.

Soil samples will be collected at five-foot depth intervals, just above first encountered groundwater, and at notable lithologic changes, utilizing a hand sampler equipped with 2-inch-diameter brass sample sleeves. Samples will be collected by advancing the hand auger to a point just above the sampling depth and driving the hand sampler into the soil. The sampler will be driven 6 inches. The number of blows required to drive the hand sampler 6 inches into the soil will be counted and recorded to give an indication of soil consistency. Each soil sample will be screened for volatile compounds with a photoionization detector (PID). Hand augering will be performed under the observation of a RESNA geologist; earth materials in the borings will be identified using manual and visual methods, and classified in the field according to the Unified Soil Classification System. Work will be performed under the supervision of a California registered geologist. One sample from every sampling interval will be sealed with aluminum foil, capped, taped, labeled, and placed on ice in an insulated container. Soil generated through drilling will be stored on plastic sheeting pending characterization for disposal. Soil will be disposed by a contractor selected by Chevron.

Soil samples selected for analyses from all soil borings will generally be the sample producing the highest reading on the PID, the sample with the strongest subjective evidence of hydrocarbons, and the sample from directly above first encountered groundwater. The RESNA project manager may select other appropriate samples from the borings utilizing the previously noted field screening techniques. Selected soil samples will be analyzed by a California-certified laboratory for total petroleum hydrocarbons as gasoline (TPHg) using modified U.S. Environmental Protection Agency (EPA) Method 8015, and for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8020.

TEMPORARY WELL INSTALLATION / WATER SAMPLING / ANALYSIS

New temporary 2-inch diameter groundwater monitoring well screen and blank casing will be installed in borings B-1 through B-4, respectively. Each temporary well will be constructed of two-inch diameter, schedule 40 PVC casing with flush treads and 0.010-inch-slot well screen. The well screen for each of the four temporary monitoring wells will be placed approximately one foot above and four feet below the current water table to permit entry of separate-phase hydrocarbons, if present. Following collection of groundwater samples, as described below, the temporary well casing will be removed from each boring and the boring will be backfilled with a cement/bentonite slurry.

RESNA' s geologist will use a bailer to collect a groundwater sample from each temporary well for subjective analysis. If free phase hydrocarbons are present, the apparent thickness will be noted, but a groundwater sample will not be collected. If free phase hydrocarbons are not present, our geologist will bail one boring volume of water from the temporary well before collecting a groundwater sample. Water samples will be collected using clean disposable bailers. Water samples will be transferred slowly from the bailer to laboratory-cleaned sample containers for laboratory analyses. Groundwater samples will be submitted to a California-certified analytical laboratory under Chain-of-Custody protocol. Copies of Chain of Custody Records will be included in our report. Water purged from the wells and water used to decontaminate augers will be directed to an on-site purge water trailer and transported to the Chevron refinery in Richmond, California.

Groundwater samples will be analyzed for TPHg and BTEX using EPA Methods modified 8015 and 602, respectively. Laboratory analytical methods and detection limits will adhere to guidelines recommended by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB).

WELL SURVEY

RESNA will perform a survey of wells and evaluate the location of potential off-site sources of petroleum hydrocarbons within a 1 mile radius of the site.

REPORT PREPARATION

A report summarizing methodology, the soil stratigraphy in the borings, and field and laboratory results will be supplied to Chevron. Information gathered during the investigation will be considered confidential and will be released only with the authorization of Chevron.

PROJECT SCHEDULE

RESNA is prepared to begin work on this project immediately in accordance with the work plan approval by Chevron. Hand augering can be scheduled to begin within two weeks of approval of the work plan by regulatory agencies.

RESNA
Working To Restore Nature

Please contact us at (415) 382-7400 if you have questions or comments regarding this work plan.

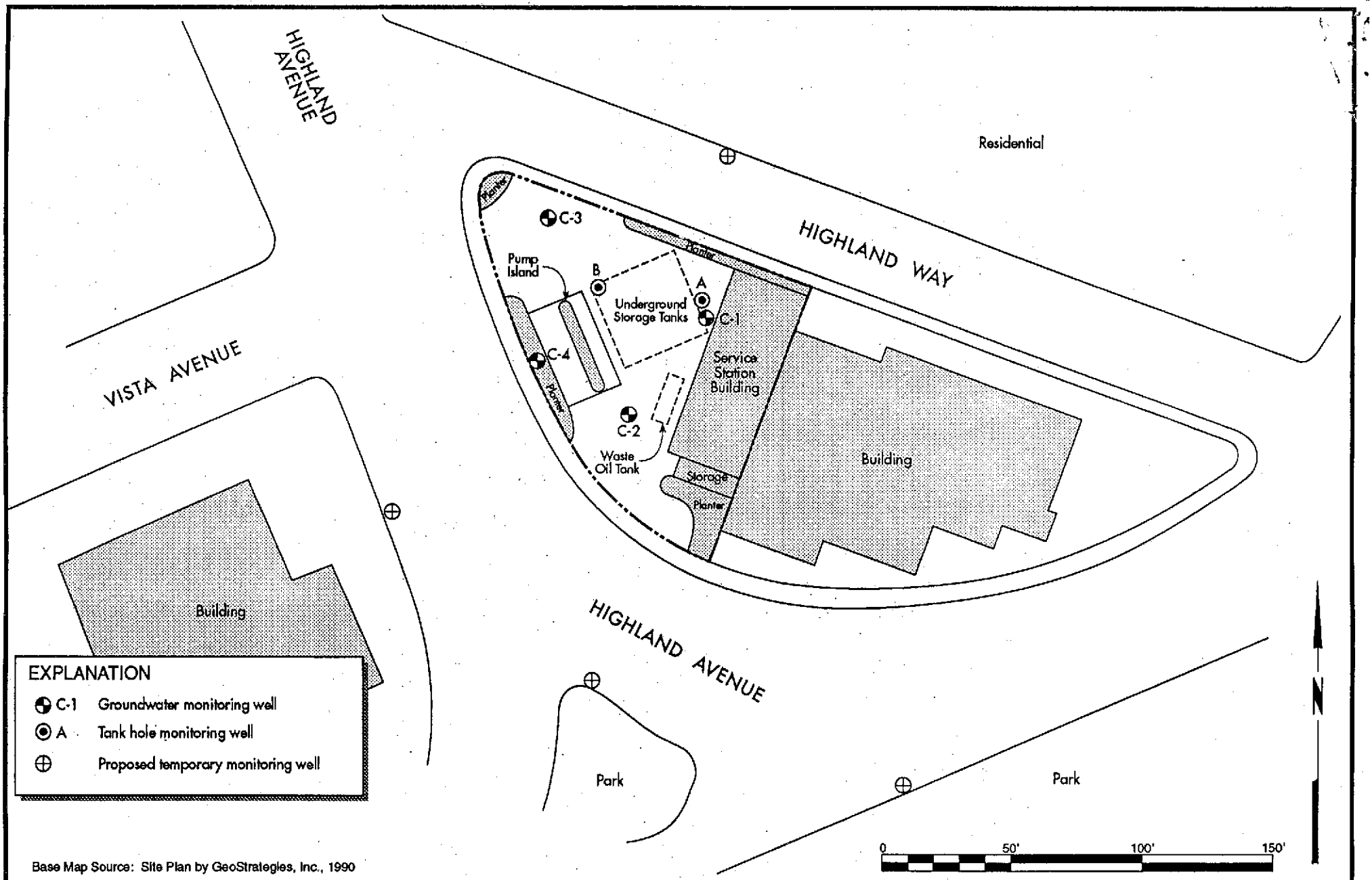
Sincerely,
RESNA Industries Inc.

Justin M. Power

Justin M. Power
Project Geologist

Gary M. Pischke
C.E.G. 1501
Senior Project Geologist

Attachments: Plate 1 - Site Location Map
Plate 2 - Generalized Site Plan



Base Map Source: Site Plan by GeoStrategies, Inc., 1990

RESNA

PROJECT NO. 170105.01 | 3/93

GENERALIZED SITE PLAN

Chevron Service Station No. 9-0329
340 Highland Avenue
Piedmont, California

PLATE
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