



October 22, 1997

Scott Seery
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

ENVIRONMENTAL
PROTECTION
97 OCT 23 PM 2:00

**RE: Soil Vapor Sample Collection Work Plan
Addendum**

Former Chevron Service Station #9-5607
5269 Crow Canyon Road
Castro Valley, California
WA Job #4-1129-70

Dear Mr. Seery:

On behalf of Chevron Products Company (Chevron), Weiss Associates (WA) has prepared this Work Plan addendum for the above referenced site. This addendum was prepared to satisfy the requests stated in the letter from Scott Seery, Alameda County Health Care Services, to Brett Hunter of Chevron, dated September 22, 1997. As requested, **Chevron will collect 5 vapor samples along the 250' stretch of sanitary sewer trench running beneath Waterford Place.** Sampling will begin at the northern terminus of the sewer line near well C-12, and extend southward beyond well C-11. The scope of work beyond that stated in the Soil Vapor Sample Collection Work Plan, dated August 8, 1997, includes:

- Determining whether special permitting or precautions are necessary for drilling in the near vicinity of the sewer service conduit and obtaining the necessary drilling permits,
- A description of the technique for locating the sanitary sewer service conduit,
- A description of the drilling technique,
- A description of the soil vapor sample collection technique, and;
- The laboratory analytical method references.

The additional soil vapor samples will be collected from five sample locations at a depth of approximately 6 feet below ground surface at the proposed locations shown on Figure 1. The steps involved in this work plan addendum are described in detail below.

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Special Permitting or Precautions

WA will contact the Alameda County Public Works Department to determine whether a special drilling permit is required for the five additional soil borings. WA will obtain the drilling permits and address any special permitting requirements.

In addition, WA will contact the East Bay Municipal Utilities District to determine whether special drilling precautions are necessary in the near vicinity of the sewer service conduit.

Sewer Service Conduit Location

The sewer service manholes along Waterford Place will be located using the drawings previously provided by the City of Castro Valley Building Department. The manholes will be opened to determine the precise location of each end of the sewer piping. A span of string will be stretched between the manhole/piping intersections and the ground will be marked below the string to delineate the location of the piping. The piping is assumed to lie along a straight line as depicted in the City of Castro Valley Building Department drawings.

Drilling Technique

Special precautions will be taken to prevent rupture of the sewer service piping during drilling activities. The depth to the sewer service piping will be determined from the survey information included in the City of Castro Valley Building Department drawings. The Geoprobe rod will be offset approximately 1 foot from the piping centerline and advanced to approximately 1 foot above the piping using a truck mounted Geoprobe hammer. The rod will be withdrawn from the hole and a hand operated probing stake will be inserted into the hole to the depth of the sewer piping to ensure that rupture of the piping will not occur. A vapor-sampling rod will then be driven to the depth of the sewer piping and the vapor sample collected.

Soil Vapor Sample Collection Technique

Soil vapor samples will be collected by advancing a vapor sampling rod with a hydraulically powered GeoProbe, inserting post run tubing (PRT) and connecting the tubing to the vapor sample collection assembly (Figure 2). The collection assembly ball valve will be opened and approximately 3 purge volumes (calculated in the field) will be removed from the vapor sample lines using a Geoprobe vacuum/volume system. The sample will be collected by closing the ball valve and opening the sample collection valve on the 1 liter Summa canister while monitoring the vacuum gauge. The Summa canister valve is closed after a three-minute sample collection time. After sample collection, the configuration is disconnected and the summa canister is labeled and stored for shipment. Before collecting the next vapor sample, the tubing and tee are replaced, the probe rod assembly is cleaned, the vacuum gauge and ball valve are purged with ambient air and a new Summa canister is connected.

Laboratory Sample Analysis Method

Soil vapor samples will be sent to Air Toxics Ltd. of Folsom, California and analyzed for benzene, toluene, ethylbenzene and xylenes by EPA method TO-14.

We trust this workplan addendum satisfies your request. Please call the undersigned at (510) 450-6193 if you have any technical questions about this workplan.

Sincerely,
Weiss Associates



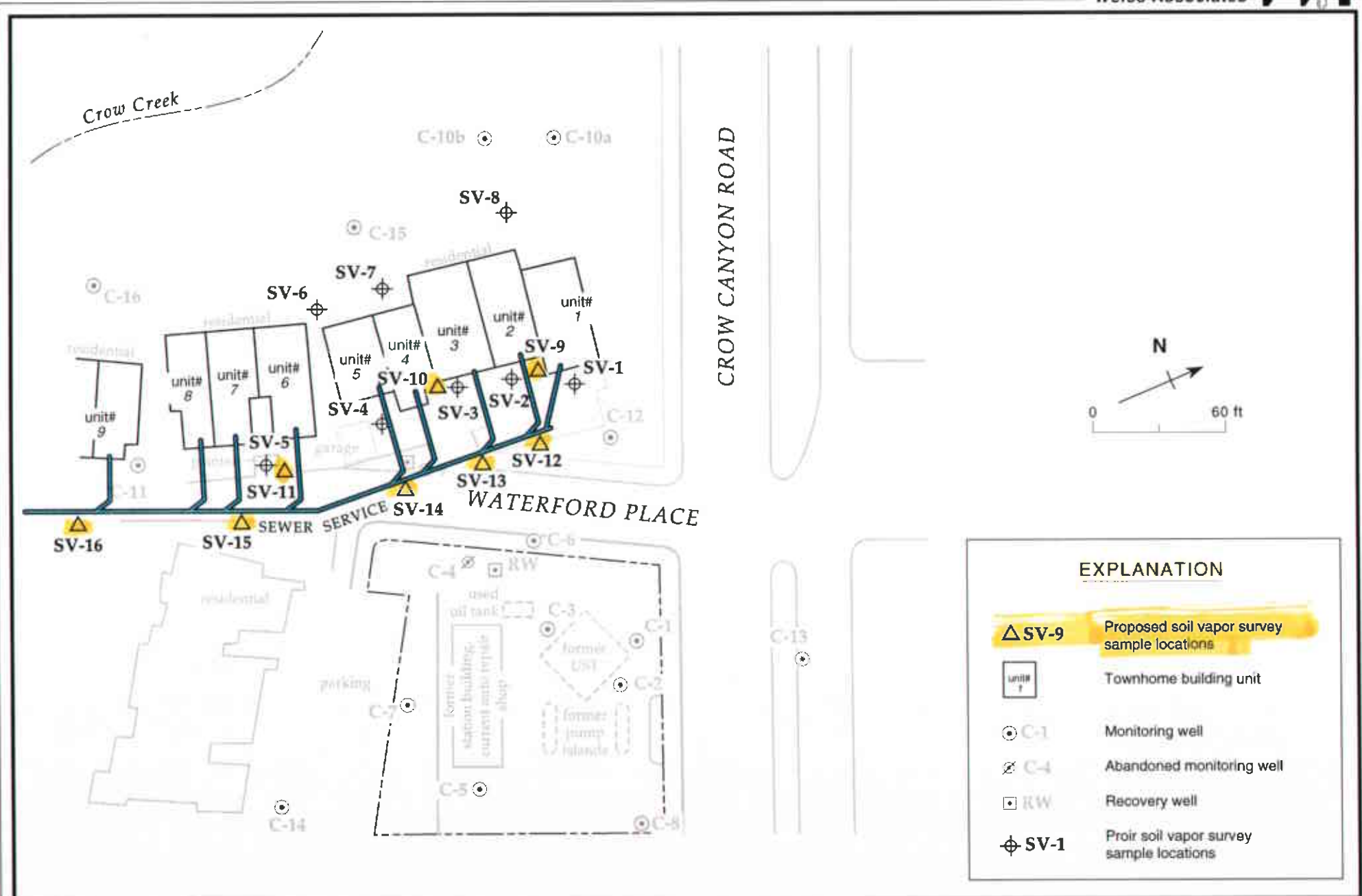
Tim Utterback PE
Senior Staff Engineer

Attachments: Figure 1. Proposed Soil Vapor Survey Sample Locations
Figure 2. Vapor Sample Collection Configuration

cc: Brett Hunter, Chevron USA Products Company, P.O. Box 5004,
San Ramon, CA 94583-0804
Kevin Graves, Regional Water Quality Control Board - San Francisco Bay,
2101 Webster Street, Suite 500, Oakland, California 94612

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


EXPLANATION	
 SV-9	Proposed soil vapor survey sample locations
	Townhome building unit
 C-1	Monitoring well
 C-4	Abandoned monitoring well
 RW	Recovery well
 SV-1	Pror soil vapor survey sample locations

Figure 1. Plan View of Sewer Service Conduits and Proposed Soil Vapor Survey Sample Locations- Chevron Station 9-5607, 5269 Crow Canyon Road, Castro Valley, California

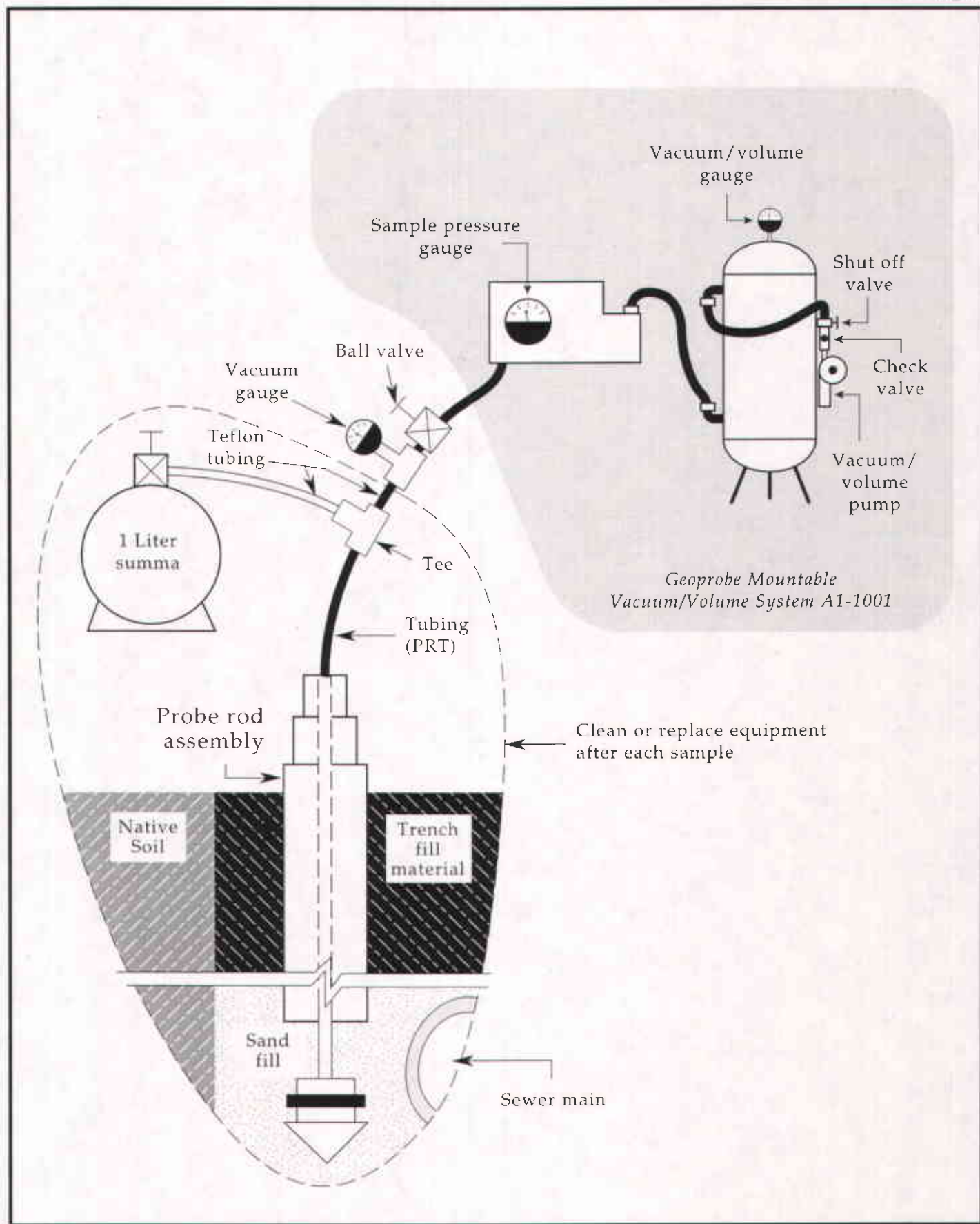


Figure 2. Vapor Sample Collection Configuration - Former Chevron Service Station #9-5607,5269 Crow Canyon Road, Castro Valley, California