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Epigene International
CONSULTING GEOLOGISTS

October 16, 1998

Mr. J. W. Silveira
J. W. Silveira Company
499 Embarcadero
Oakland, CA 94606

Subject: Workplan for Additional Site Characterization for Property Located at 2301 East
12th Street, Oakland

Dear Mr. Silveira,

The proposed workplan presented below is based on an agreement made at a meeting on October 14, 1998, with Mr. Barney Chan of Alameda County, Mr. Robert Shapiro and Ms. Virginia Tracey representing J. W. Silveira Company and the undersigned. The workplan replaces any previous plans that may have been prepared for the site.

The site is located at the southwest corner of the intersection of East 12th Street and 2301 Avenue in Oakland. A location map is presented on Figure 1. A site plan showing the existing wells and proposed additional subsurface investigations is presented on Figure 2. The present tenant at the site is Discount Brakes and Tires.

The existing wells at the site have been monitored on a quarterly basis. The results of the monitoring are presented in the quarterly reports prepared by Epigene International. The next monitoring is scheduled for the end of October. The monitoring will be carried out independent of the proposed site characterization work.

The workplan consists of the following tasks:

1) Concurrent with the next monitoring, groundwater samples will be collected from the existing wells and analyzed for parameters related to the possibility of using enhanced bioremediation at the site *edit: 2.0, 2.1, 2.2, 2.3, 2.4, 2.5*

2) Assuming that the environment of the contamination plume is oxygen deficient, socks containing Oxygen Release Compound (ORC) supplied by Regensis will be installed through out the water column in the existing wells. The results of subsequent monitoring will be used to assess whether or not this technique can be used on a larger scale for the entire plume

*> selected
wells
at wells*

3) Three hydropunches will be installed in the park area across (northwest) from the site to define the down gradient edge of the plume. The hydropunches will extend at least 5 feet into the saturated zone. A soil sample will be collected from the vadose zone in each of the hydropunches. A water sample will be collected from the saturated zone. Each soil and water sample will be analyzed for OPH as diesel, OPH as gasoline, BTEX compounds, MTBE and solvents included in EPA 8010. The samples will be collected, maintained and transported following appropriate QA/QC procedures. Permits will be required from the City of Oakland Parks Department.

4) A hydropunch will be installed in the sidewalk on the east side of East 12th Street across from the site. The purpose of this hydropunch is to assess whether or not there is contamination coming from offsite that may be contributing to the plume. A soil and groundwater sample will be collected from the hydropunch and analyzed as described above. Permits will be required from the City of Oakland Public Works Department for drilling in the sidewalk area.

5) Two small diameter hydropunches will be placed inside the existing building at the site. The hydropunches will be installed using a hand operated rig. The purpose of these hydropunches is to assess whether or not there is contamination migrating from the property directly upgradient of the site. The primary concern at this location is solvents, however, the soil and groundwater samples will be analyzed for the full suite of compounds that are present on the site. The inside work will be carried out on a Sunday or Monday while the tenants business is closed. We will probably have to pay one of their employees to be present while the work is done.

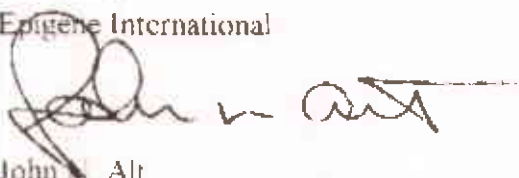
6) A report will be prepared to document the results of the investigation. The results will be discussed with the County. Based on that meeting, recommendations will be prepared to address any future requirements for the site.

Tasks one and two will be carried out in the last quarter of 1998. The subsurface investigations will be completed in the first quarter of 1999

Please call the undersigned with any questions and/or comments on the proposed investigations. The cost estimate for the proposed investigation is being provided under separate cover. We look forward to working with you on this project.

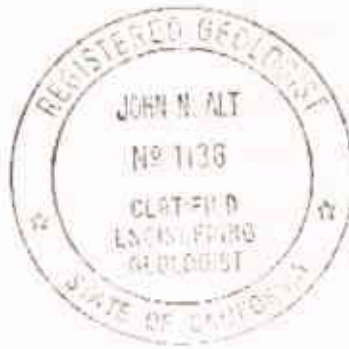
Sincerely,

Epigene International







John N. Alt

Certified Engineering Geologist No. 1136



attachments

LEGEND

-  Existing monitoring well.
-  Existing extraction well.
-  Soil Boring.
-  Proposed hydropunch location.

East 12th Street (to Ft. Verde >)

BART viaduct

(to downtown Oakland >)

Avenue

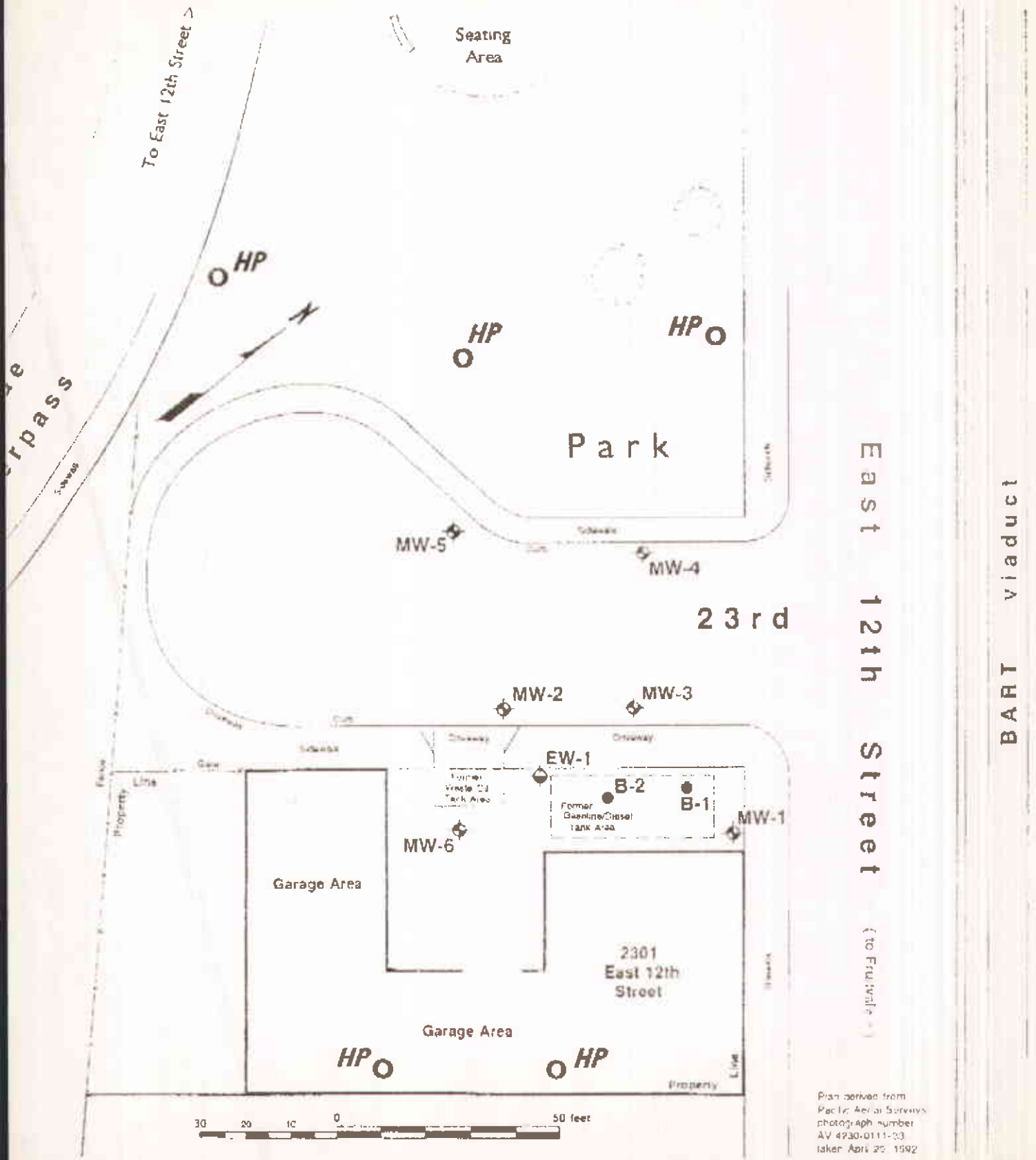
East 12th Street



Plan derived from Pacific Aerial Surveys photograph number AV-4210-01:1-30 taken April 20, 1992

EPIGENE INTERNATIONAL	Project # 98-008 2301 EAST 12TH STREET, Oakland, California.
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Fig. **SITE AREA PLAN WITH PROPOSED HYDROPUNCH LOCATIONS**



Plan derived from
 Pacific Aerial Surveys
 photograph number
 AV 4930-0111-03
 taken April 20, 1992