

April 28, 1993

Ms. Pauline E. Reith
BP Oil Company
16400 Southcenter Parkway, Suite 301
Tukwila, WA 98188

Re: BP Service Station No. 11270, 3255 McCartney Road, Alameda

Dear Ms. Reith,

With regard to our recent conversations, and pursuant to the Alameda County Department of Health Services (ACDEH) letter dated April 7, 1993, the following presents a brief workplan for investigative activities proposed for completion at the referenced location.

Status:

A Phase 1 Environmental Investigation was completed in November, 1992. The results of this effort were presented in the Hydro-Environmental Technologies Preliminary Site Assessment Report dated January 7, 1993. As presented in the report, concentrations of petroleum hydrocarbons were detected in water samples collected from monitoring wells MW-2 and MW-4. These wells, along with MW-1 and MW-3 were present at the site prior to the initiation of the assessment. Wells MW-1 and MW-3 were not sampled due to inadequate recharge. In order to evaluate the distribution/concentration of the hydrocarbons detected in these wells, BP is currently preparing to commence with the second phase of site characterization. The findings will be documented in a brief investigative report, and will be presented such that County and State requirements for quarterly sampling and data presentation are satisfied. Specific activities associated with this effort are proposed in the following section.

Workplan for Additional Assessment:

- Obtain information pertaining to construction detail and historical sampling of monitoring wells on site and surrounding the site on Harbor Bay Landing property. This information has not been found in either Alameda County or Regional Board files. Well permit records for Zone 7 will be accessed, as well as current/previous property owners files. There is a possibility that this detail does not exist in any accessible file.
- Permit and install one on-site monitoring well as shown on the attached site plan. The purpose of this well installation is to determine the on-site lateral extent of petroleum hydrocarbons in ground water. The additional ground water monitoring well is proposed to complement the existing on and off site wells. This proposed

installation will be finished as a 4-inch diameter well in order to enable the completion of an aquifer test at a later date. A step-drawdown test will be completed during well development to provide data to be used during the aquifer test planning stages. A step drawdown test is an uncomplicated technique utilized to determine the effective yield of a ground water monitoring well. It involves the removal of water from the well at varying rates by means of an electric submersible or surface mounted pump. Water will be directed to 55 gallon drums, sampled and disposed of in a manner consistent with that utilized to dispose of water generated during standard ground water sampling activities. All wells will be surveyed, sampled, and monitored.

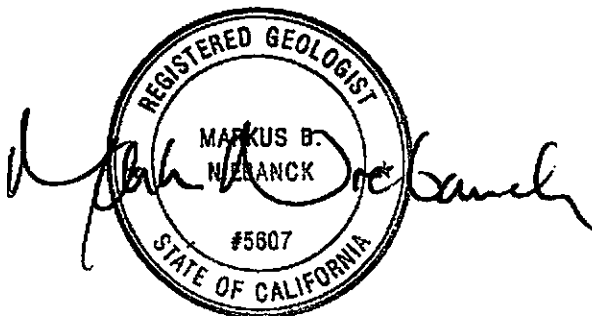
- As depth to ground water beneath this site has been established at six feet from grade, a single soil sample will be collected at five feet below grade during drilling. Soil and ground water samples will be analyzed for concentrations of contaminants detected during preliminary site assessment (diesel and gasoline constituents). The results of this phase of site assessment will be presented in a brief report. The report will include all pertinent information with regard to local ground water gradient and hydrocarbon distribution. This report will also serve to satisfy quarterly monitoring requirements. A comprehensive Problem Assessment Report drafted in accordance with local and State standards will be prepared following complete characterization of the site.

Methodologies to be employed during this phase of site assessment will be executed in accordance with Protocols attached to the Preliminary Site Assessment Report. Permit applications for the installation of the proposed wells are currently in preparation.

Three copies of this workplan are included and should be forwarded to the ACDEH and the Regional Board.

Very truly yours,
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

Markus B. Niebanck, R. G.
Western Regional Manager



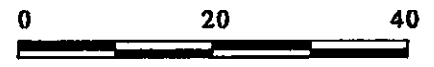
North

EXPLANATION

- PMW-4 ● = Proposed Monitoring well
- MW-1 ● = Monitoring well

TPHg = 40,000
TPHd = 3,200
B = 600
T = 700
E = 2,000
X = 6,900

 = Concentrations of: total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), benzene (B), toluene (T), ethylbenzene (E), and total xylenes (X) dissolved in water samples collected from monitoring well - in ppb



SCALE 1" = 20'

TPHg = 2,600
 TPHd = NT
 B = 250
 T = 2.5
 E = 74
 X = 6.6

MW-4

MW-3

NS

MW-2

TPHg = 2,500
 TPHd = 3,900
 B = 140
 T = ND
 E = 68
 X = 22

MW-1

NS

PMW-4

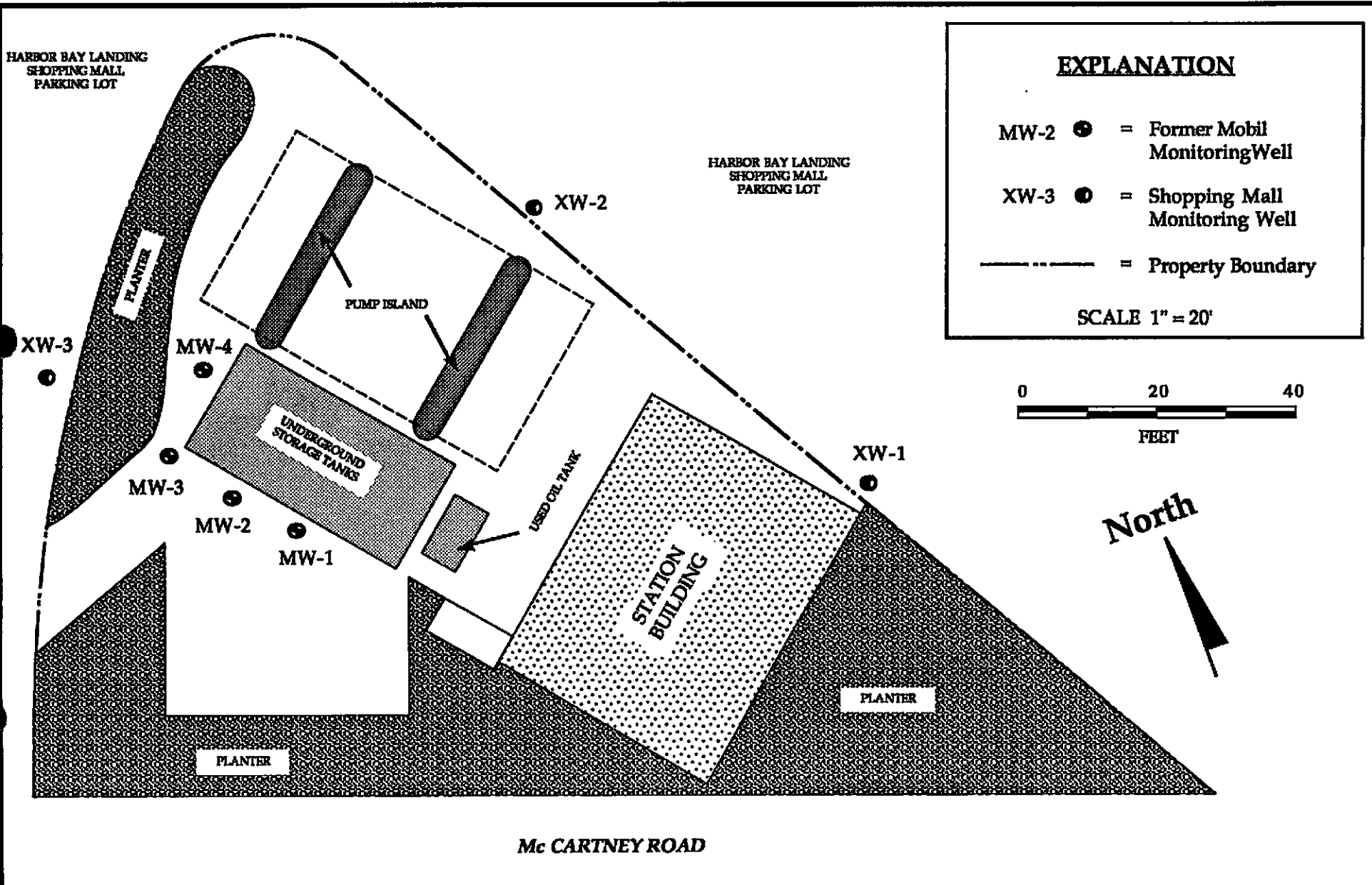
GROUND WATER SAMPLES COLLECTED ON 10-29-92

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PROPOSED WELL LOCATION MAP

BP Service Station No. 11270
 3255 Mc Cartney Road
 Alameda, California

Job No.
 9-042
 Figure
 1



HYDR-
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SITE PLAN
BP Service Station No. 11270
3255 Mc Cartney Road
Alameda, California

Job No.
9-042
Figure
2