November 8, 2006

Mr. Barney Chan
Alameda County
Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Ste. 250
Alameda, California 94502-6577

RE: Direct-Push Soil and Groundwater Assessment
Alaska Gas
6211 San Pablo Avenue
Oakland, California

Dear Mr. Chan:

Attached for your review and comment is the November 8, 2006 "Direct-Push Soil and Groundwater Assessment, *Alaska Gasoline Company, Oakland, California, Case #RO0000127"* report prepared by HerSchy Environmental, Inc upon my behalf, for the above-referenced site.

As the legally authorized representative of the above-referenced project, I have reviewed the attached report and declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the best of my knowledge.

Sincerely,

Mr. Pritpaul Sappal

HerSchy Environmental, Inc.

November 16, 2006
Project A51-01

Mr. Barney Chan
Alameda County
Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Ste. 250
Alameda, California 94502-6577

Re: Direct-Push Soil and Groundwater Assessment, Alaska Gasoline Company, Oakland, California, Case #RO0000127

Dear Mr. Chan:

HerSchy Environmental, Inc. is pleased to present this work plan to assess the down-gradient lateral extent of dissolved and free phase petroleum hydrocarbons in groundwater at the above-referenced site. The site is located at 6211 San Pablo Avenue in Oakland, California (Figure 1). This work would be in lieu of, or a preliminary location assessment for, the previously proposed off-site and down-gradient monitoring wells. It is anticipated that through direct-push assessment of subsurface soil and groundwater, a relatively quick and effective assessment of down-gradient and off-site conditions can be obtained.

HerSchy Environmental, Inc. continues to work on options permissible by the City of Oakland planning department for monitoring well installation. Off-site well installation will require unusual strategies for permitting. As such, utilizing direct push sampling of soil and groundwater down-gradient of the site is a cost-effective and limited impact method, with significant amount of data obtained with relatively little field work required. Additionally, direct-push borings would be temporary, not requiring the long-term insurance requirements of the City of Oakland. The results of this off-site and down gradient assessment may discern if the locations of the proposed permanent wells should be amended. Alternatively, it may be found that off-site migration is not a great concern, and that permanent wells are not warranted. A work plan for soil and groundwater assessment off-site is presented below.

DIRECT PUSH SOIL AND GROUNDWATER ASSESSMENT

Boring Installation and Sampling

Soil and groundwater sampling will be performed utilizing a direct-push rig, which advances a two-inch plastic sleeve hydraulically into the subsurface. Each sleeve is four feet long and collects relatively undisturbed and continuous soil sample. Each four-foot soil "core" is removed once completely advanced, with new sleeves advanced back-to-back to the desired depth.

Soil will be described in accordance with the Unified Soil Classification System, manual and visual methods, by a geologist working under the direction of a California Professional

Geologist. Soil will be examined and field screened for evidence and degree of contamination. Examination of soil will include noting discoloration, staining, and odors. Field screening will be performed utilizing a portable organic vapor analyzer (OVA) to measure volatile organic compounds (VOCs). Selected sections of each core will be placed in zip lock bags and set in the sun for a minimum of 10 minutes to facilitate volatilization. The OVA probe will be inserted into the bag, with concentrations in parts per million (ppm) recorded.

Borings will be placed as shown in Figure 2, beginning with the locations closest to the site (DP-1 and DP-2), followed by the location most directly down-gradient (DP-3). If still warranted after field assessment in DP-1 through DP-3, DP-4 and DP-5 locations will be decided on based on field OVA data and observation. Additional borings may be placed further off-site as necessary, within the general area as outlined. In order to obtain confirmatory data, samples will be collected from the capillary fringe and within 12 inches below first encountered groundwater. Because nominal product recharge was observed in on-site well EX-1 during the most recent free product removal test (September 2006), observing free product in direct push borings is unlikely. Results from samples collected at the capillary fringe and just below first encountered groundwater are expected to be returned at elevated concentrations if free product is present, perhaps at concentrations in terms of percent of volume.

Groundwater samples will also be collected from each boring to further assess any free product and dissolved phase contaminants. Samples will be collected utilizing a hydropunch tool attached to a steel rod and driven into groundwater. The hydropunch will be opened several inches was driven to the desired depth to expose a ¾-inch perforated casing. A bailer would be used to collect a water sample, and placed in 40-millimeter vials. Collection of groundwater samples in contingent upon groundwater recharge; many places in the area, including areas of the Site, have very slow recharge rates, and could take days to recharge.

Soil samples will be collected by cutting the desired section of tubing that corresponds to the capillary fringe and saturated zones. The ends will be covered with Teflon tape, capped with plastic end caps, and placed in a cooler chest containing frozen gel packs, "blue ice". Groundwater samples will be collected in 40-millimeter vials, individually stored in zip-lock bags, and placed in the cooler chest above. All samples will be maintained at four degrees Celsius or below, and transported under chain-of-custody documentation until delivery to a certified laboratory.

Analytical Analysis

Groundwater and soil samples will be analyzed for gasoline-range total petroleum hydrocarbons (TPHg), benzene, toluene, ethylbenzene and xylenes (BTEX), and methyl tert butyl ether (MTBE). Analytical methods will include EPA method 8015M for TPHg and EPA method 8020 for BTEX and MTBE. In addition, the fuel additives and oxygenates MTBE, di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), 1,2-dichloroethane (1,2-DCA), and ethylene dibromide (EDB) will be analyzed using EPA Method 8260b.

Scheduling

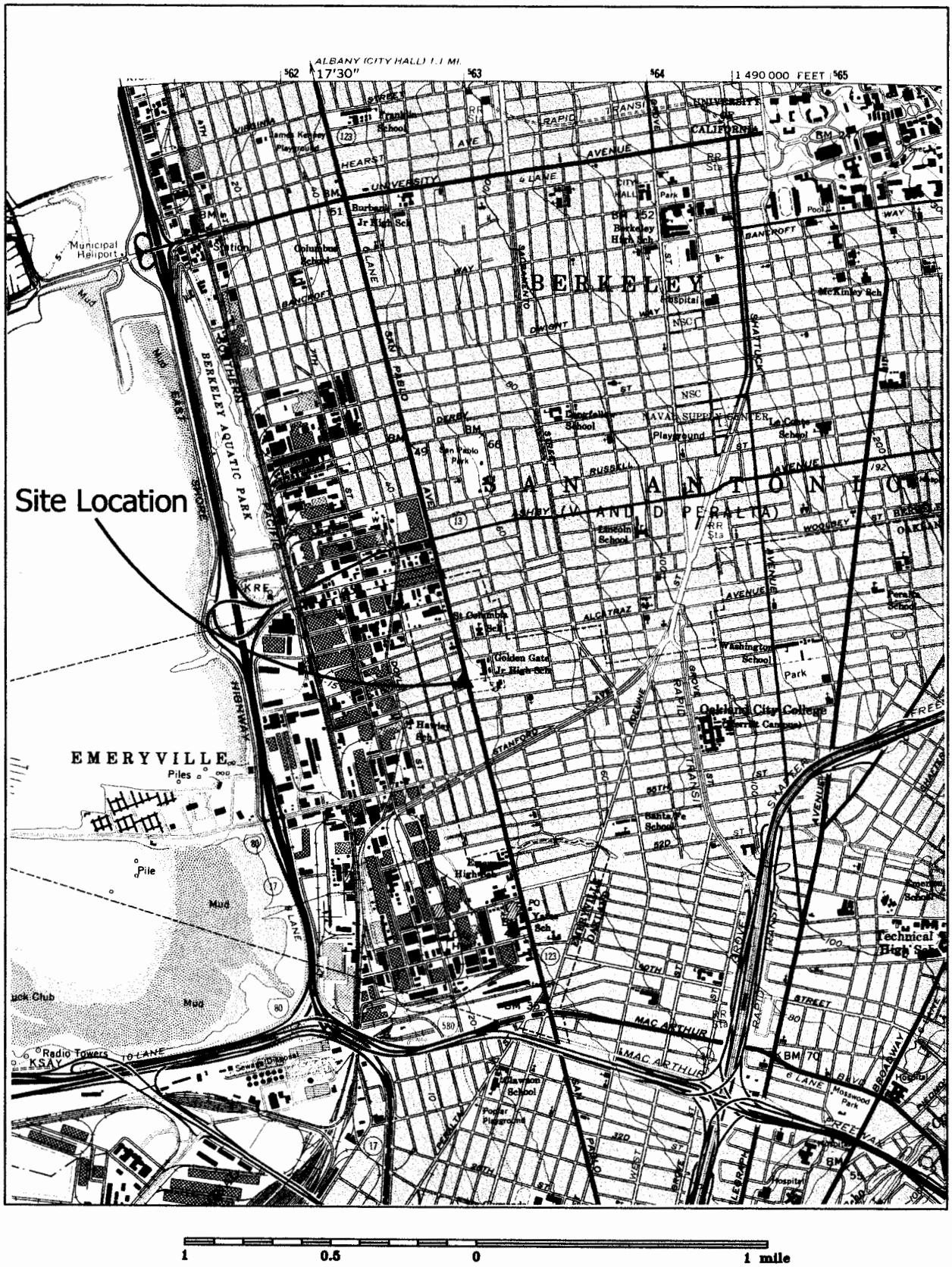
Upon approval from your office, HerSchy Environmental, Inc. will begin the permitting and drilling scheduling processes. HerSchy will evaluate the options of installation of these borings in private property, or in the city right-of-way (inside of sidewalks), and determine the most expedient and appropriate option.

If you have any questions, or require additional information, please contact the undersigned at (559) 641-7320.

With best regards,
HerSchy Environmental, Inc.

Scott Jackson
Professional Geologist #7948

cc: Mr. Pritpaul Sappal
Mr. Hernan Gomez, Oakland Fire Services Agency
Mrs. Susan M. Torrence, Deputy District Attorney



HerSchy Environmental, Inc.

Environmental Consulting and Remediation

P. O. Box 229
Bass Lake, California 93604-0229
Tel. (559) 641-7320, Fax (559) 641-7340

SITE LOCATION MAP

ALASKA GASOLINE COMPANY

6211 San Pablo Avenue, Oakland, California

DATE:	August 2005
FILE NO.:	A51.01
DRAWN BY:	WEA

FIGURE 1

PROPOSED DIRECT-PUSH BORING LOCATIONS

SCALE: 1" = 50'	APPROVED BY:	DRAWN BY: SAJ
DATE: November 2006		REVISED:

ALASKA GAS
Oakland, California

HerSchy Environmental, Inc.

DRAWING NUMBER: FIGURE 2