

**SOIL VAPOR SAMPLING WORKPLAN
HOLLAND OIL PROPERTY
16301 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA 94580**

PREPARED FOR:

Hayward Area Recreation and Park District
1099 E Street
Hayward, California 94541

PREPARED BY:

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
1956 Webster Street
Oakland, California 94612

April 9, 2009
Project No. 401314004

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Mr. Lawrence R. Lepore
Park Superintendent
Hayward Area Recreation and Park District
1099 E Street
Hayward, California 94541

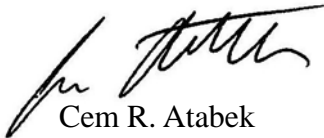
Subject: Soil Vapor Sampling Workplan for the Holland Oil Property
16301 East 14th Street
San Leandro, California 94580

Dear Mr. Lepore:

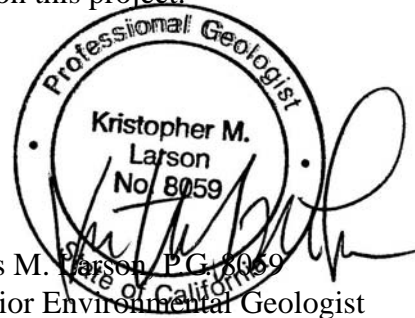
On behalf of the Hayward Area Recreation and Parks District (HARD), Ninyo & Moore has prepared this Soil Vapor Sampling Workplan for the Holland Oil Property located at 16301 East 14th Street, San Leandro, California (site).

We appreciate the opportunity to be of service to HARD on this project.

Sincerely,
NINYO & MOORE



Cem R. Atabek
Staff Environmental Engineer



Kris M. Larson, P.G. 8059
Senior Environmental Geologist

CRA/KML/csj

Distribution: (1) Addressee
(1) Mr. Jerry Wickham, P.G.,
Hazardous Materials Specialist, Alameda County Environmental Health,
1131 Harbor Bay Parkway, Suite 250, Alameda, California 94502
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580 Second Street, Suite 260, Oakland, California 9460

1. INTRODUCTION

On Behalf of Hayward Area Recreation Department (HARD), Ninyo & Moore has prepared this Soil Vapor Sampling Workplan (workplan) for the former Holland Oil property located at 16301 East 14th Street in unincorporated Alameda County near San Leandro, California.

1.1. Purpose

The purpose of the workplan is to provide additional data needed to evaluate subsurface vapor characteristics in the area of a proposed gymnasium on the Edendale Middle School property, located adjacent to the west side of the former Holland operation. Soil vapor samples will be collected and analyzed for compounds relevant to the historic Holland bulk fuel storage facility.

2. SCOPE OF WORK

The scope of work will consist of soil vapor sampling. Our proposed pre-field preparations and field activities are discussed in the sections below.

2.1. Pre-field Preparations

2.1.1. Permitting

Prior to the start of field activities, Ninyo & Moore will obtain a Drilling Permit, as appropriate, from Alameda County Public Works Agency (ACPWA).

2.1.2. Site Specific Health and Safety Plan (SSHSP)

Prior to field work, a SSHSP will be prepared and will be implemented during field activities. The SSHSP will discuss the potential hazards associated with the site and project activities and the measures to be taken to protect site workers from the potential hazards. A tailgate health and safety meeting will be conducted with site personnel prior to field work each day to discuss the SSHSP. All on-site personnel will sign the SSHSP

at the end of each tailgate meeting to acknowledge their understanding of the information contained within the SSHSP.

2.1.3. Utility Clearance

The proposed borings locations will be marked with white paint and Underground Services Alert (USA) will be contacted in order to obtain a utility clearance ticket. USA will contact local utility companies to locate underground utilities in the proposed work areas. If appropriate, site personnel will be contacted to provide additional information regarding underground utilities around proposed drilling locations. A private utility locating company will be contracted to confirm the USA markings and identify potential underground utilities that may have been missed by USA. Where underground utilities or structures are present beneath proposed work areas, the drilling locations will be moved to unobstructed areas.

2.2. Soil Vapor Sampling

Ninyo & Moore will advance 3 borings for the purpose of soil vapor sampling using direct push drilling and sampling methods. Borings ESSV-1 through ESSV-3 will be advanced on the Edendale Middle School property in the footprint of the proposed gymnasium adjacent to the west side of the site (Figure 1). The vapor samples will be collected in accordance with the Department of Toxic Substances Control (DTSC) and Los Angeles Regional Water Quality Control Board (LA RWQCB) *Advisory – Active Soil Gas Investigations* guidance document dated January 28, 2003 (DTSC, 2003).

The soil vapor sampling procedures will follow the methods described in detail in Ninyo & Moore's Site Assessment Workplan, dated August 20, 2008. Soil vapor samples will be analyzed for total petroleum hydrocarbons as gasoline (TPH-g) and Volatile Organic Compounds (VOCs) using EPA Method TO-15.

2.3. Letter Report Preparation







A letter report will be prepared following completion of the described activities. The report will include a description of soil vapor sampling activities and analytical results, complete with tables, figures, and certified analytical laboratory report.

3. REFERENCES

Department of Toxic Substances Control & Los Angeles Regional Water Quality Control Board, 2003, *Advisory – Active Soil Gas Investigations*, dated January 28.

Ninyo & Moore, 2008, Site Assessment Workplan, 16301 East 14th Street, San Leandro, California, dated August 20.

LEGEND

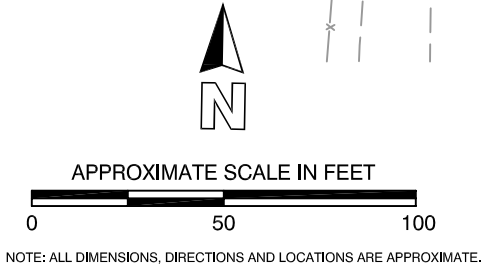
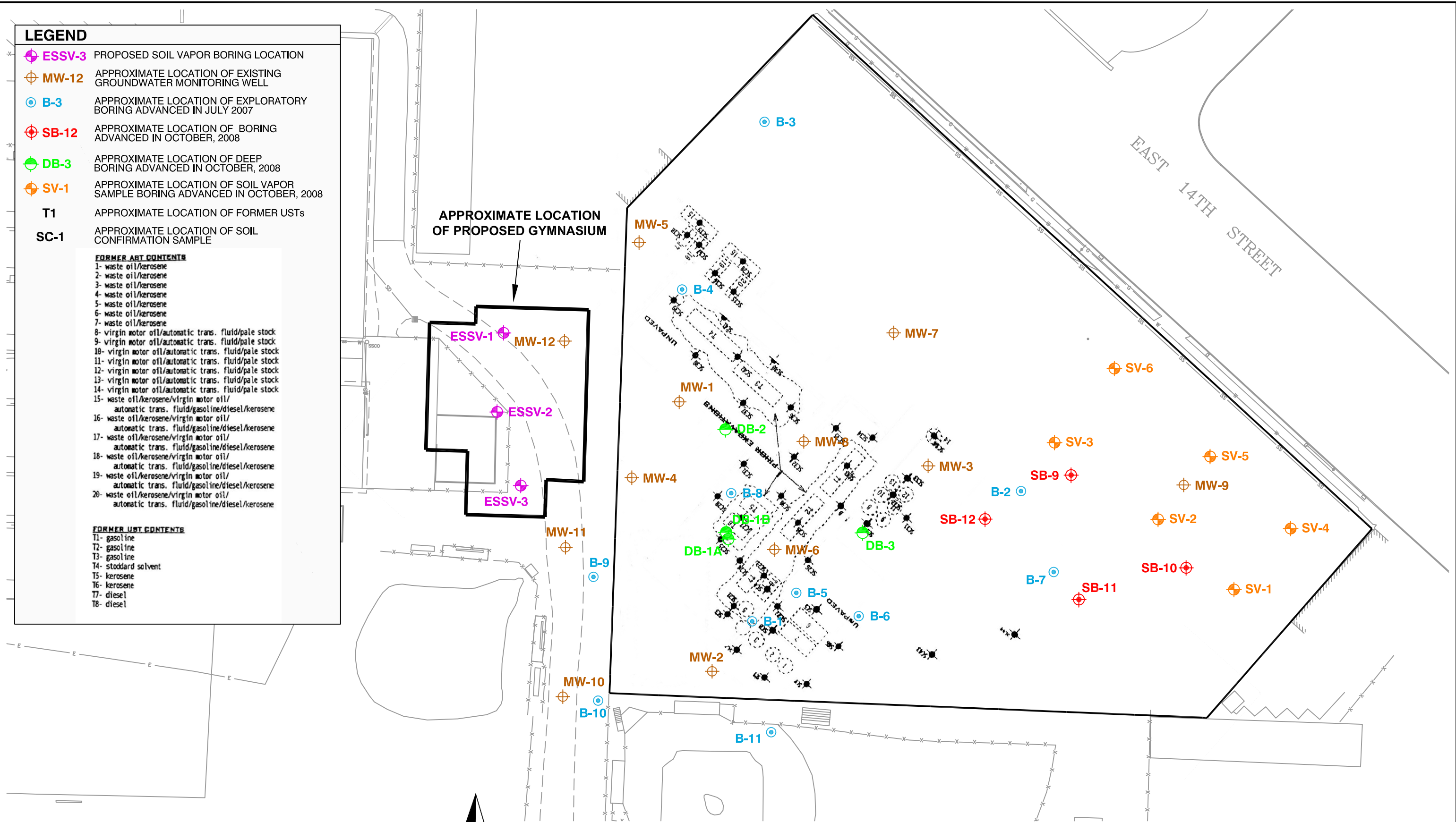
-  **ESSV-3** PROPOSED SOIL VAPOR BORING LOCATION
-  **MW-12** APPROXIMATE LOCATION OF EXISTING GROUNDWATER MONITORING WELL
-  **B-3** APPROXIMATE LOCATION OF EXPLORATORY BORING ADVANCED IN JULY 2007
-  **SB-12** APPROXIMATE LOCATION OF BORING ADVANCED IN OCTOBER, 2008
-  **DB-3** APPROXIMATE LOCATION OF DEEP BORING ADVANCED IN OCTOBER, 2008
-  **SV-1** APPROXIMATE LOCATION OF SOIL VAPOR SAMPLE BORING ADVANCED IN OCTOBER, 2008
- T1** APPROXIMATE LOCATION OF FORMER USTs
- SC-1** APPROXIMATE LOCATION OF SOIL CONFIRMATION SAMPLE

FORMER ABT CONTENTS

- 1- waste oil/kerosene
- 2- waste oil/kerosene
- 3- waste oil/kerosene
- 4- waste oil/kerosene
- 5- waste oil/kerosene
- 6- waste oil/kerosene
- 7- waste oil/kerosene
- 8- virgin motor oil/automatic trans. fluid/pale stock
- 9- virgin motor oil/automatic trans. fluid/pale stock
- 10- virgin motor oil/automatic trans. fluid/pale stock
- 11- virgin motor oil/automatic trans. fluid/pale stock
- 12- virgin motor oil/automatic trans. fluid/pale stock
- 13- virgin motor oil/automatic trans. fluid/pale stock
- 14- virgin motor oil/automatic trans. fluid/pale stock
- 15- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 16- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 17- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 18- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 19- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 20- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene

FORMER UST CONTENTS

- T1- gasoline
- T2- gasoline
- T3- gasoline
- T4- stoddard solvent
- T5- kerosene
- T6- kerosene
- T7- diesel
- T8- diesel



REFERENCE: VIRGIL CHAVEZ LAND SURVEYING 2008, ENVIRONMENTAL BIO-SYSTEM, INC 2003.

Ninyo & Moore		PROPOSED SOIL VAPOR BORING LOCATION MAP	FIGURE 1
PROJECT NO. 401314004	DATE 409		