PES Environmental, Inc.
Engineering & Environmental Services

DL001A

SITE SPECIFIC SAFETY AND HEALTH PLAN
DUBLIN ROCK AND READY MIX
DUBLIN, CALIFORNIA

By:

Jane H. Gill
Staff Geologist

Michael D. Thompson, P. E.
Senior Engineer

November 12, 1991

P.O. Box 1833 • 100 Medical Plaza • Novato, CA 94948 • (415) 898-3531 • FAX (415) 898-2780

INTRODUCTION

This Health and Safety Plan (HSP) describes the minimum health and safety requirements for the planned field activities at Dublin Rock and Ready Mix (the Site) located at 6393 Scarlett Court in Dublin, California. The work is being performed in response to a request by the Alameda County Health Agency (ACHA), Division of Environmental Health, and is being done to evaluate the presence of hydrocarbons in groundwater and to evaluate the direction of groundwater flow at the site. The field activities, which are described in detail in the workplan for this project, include drilling and installing four monitoring wells.

In addition to the procedures and requirements described in this HSP, all on-site PES and subcontractor personnel shall follow applicable Federal, State, and local health and safety regulations, orders, and the like. Any modifications made to this HSP because of encountered field conditions must be approved by the project manager.

A copy of this HSP will be available at the site during all on-site activities.

KEY PERSONNEL AND RESPONSIBILITIES

The PES project manager (PM) is Mr. Michael Thompson. The PES site geologist, Mr. Daniel Trumbly, will function as the site safety officer (SSO). The project field staff have completed 40 hours of comprehensive health and safety training, which meets the requirements of Title 29 CFR 1910.120. The SSO has the authority to monitor and correct health and safety problems as noticed on site.

The PM is responsible for generating, organizing, and compiling the site safety and health plan (SSHP), which describes all planned field activities and potential hazards that may be encountered at the site. The PM is also responsible for assuring that adequate training and safety briefing(s) for the project are provided to the project team. The PM will provide a copy of this SSHP to each member of the project field team and one copy to the subcontractor prior to field activities.

PES' Health and Safety Officer (HSO) is Ms. Jane Gill. The HSO is responsible for developing and coordinating the PES health and safety program. For specific projects, the HSO is responsible for reviewing and approving the draft SSHP for accuracy and incorporating new information or guidelines, which aid the PM and SSO in further definition and control of the potential health and safety hazards associated with the project.

The project geologist is responsible for ensuring that all data acquisition is performed in accordance with the work plan and SSHP, and that deviations from the plan are based upon field conditions encountered and are well documented in the field notes. The project geologist's health and safety responsibilities include:

Following the SSHP;
Reporting to the PM any unsafe conditions or practices;
Reporting to the PM all facts pertaining to incidents which result in injury or exposure to toxic materials; and
Reporting to the PM equipment malfunctions or deficiencies.

The SSO has on-site responsibility for ensuring that all team members, including subcontractors, comply with the SSHP. It is the SSO's responsibility to inform the subcontractors and other field personnel of chemical and physical hazards as he becomes aware of them. The SSO has the authority to monitor and correct health and safety problems as noticed on site. Additional SSO responsibilities include:

Providing site safety briefings for team members;
Updating equipment or procedures to be used on the site based on new information gathered during the site investigation;
Inspecting all personal protective equipment (PPE) prior to on-site use;
Assisting the PM in documenting compliance with the SSHP by completing the standard PES forms;
Assisting in and evaluating the effectiveness of decontamination procedures for personnel, protective equipment, sampling equipment and containers, and heavy equipment and vehicles;
Enforcing the "buddy" system as appropriate for site activities;
Posting phone numbers, location and route to the nearest medical facility, and arranging for emergency transportation if necessary;
Posting phone numbers of local public emergency services (police and fire departments);
Stopping operations that threaten the health and safety of the field team or surrounding populace;
Entering the exclusion area in emergencies after he or she has notified emergency services; and,
Observing field team members for signs of exposure, stress, or other conditions related to preexisting physical conditions or site work activities.

EMERGENCY PROCEDURES

A first aid kit will be available at the site for minor injuries. If an injury is sustained that is not minor, site personnel should (1) contact off-site medical help (see below) and (2) contact the PES project manager or any available PES Principal.

If off-site medical or other emergency assistance is required, the following telephone numbers can be used:

Dublin Fire Department	911
Dublin Police Department	911
Emergency Room	San Ramon Regional Medical Center (510) 275-9200 6001 Norris Canyon Road, San Ramon (Route to this hospital is attached as Plate 1)

Hazardous Materials Response:

National Response Center - (800) 424-8802

California Office of Emergency Response - (800) 852-7550

Project contacts:

PES Project Manager:	Mr. Michael Thompson (415) 898-3531
PES Site Safety Officer:	Mr. Daniel Trumbly (415) 898-3531

HAZARD EVALUATION

The potential hazards to personnel working at the Site have been identified as chemical contamination and the physical hazards of working around heavy equipment. Each potential hazard relative to the potential for exposure is described below.

Chemical Hazards

As described in the work plan, minor amounts of petroleum hydrocarbons have been detected at the site. Other substances identified include minor amounts of aromatic organic compounds, including benzene, toluene and xylene.

Pertinent properties of these substances are as follows:

Light Fraction Petroleum Hydrocarbons (gasoline)
TLV(TWA)/IDLH = 300/2,000 ppm
Exposure Routes = inhalation, skin absorption, and ingestion
Hazard Properties = ignitable, toxic, volatile

Benzene

LEL/UEL = 1.3/7.1 percent
TLV(TWA)/IDLH = 10/2,000 ppm (Potential carcinogen)
Hazard Properties = ignitable, toxic, volatile
Exposure Routes = inhalation, skin absorption, and ingestion

Toluene

LEL/UEL = 1.3/7.1 percent
TLV(TWA)/IDLH = 100/2,000 ppm
Hazard Properties = ignitable, toxic, volatile
Exposure Routes = inhalation, skin absorption, and ingestion

Xylenes

LEL/UEL = 1.0/7.0 percent
TLV(TWA)/IDLH = 100/10,000 ppm
Hazard Properties = ignitable, toxic, volatile
Exposure Routes = inhalation, skin absorption, and ingestion

Physical Hazards

On-site physical hazards include working around heavy equipment and traffic.

- Mechanical hazards will exist related to operating the drill rig, if utilized;
- Traffic hazards may exist due to the movement of equipment in the lumber yard;
- Tripping or falling hazards may exist at the site; and,
- Noise hazards may exist from operating or working near heavy equipment.

HAZARD MITIGATION

Chemical Hazards

The chemical hazards listed above will be mitigated by a combination of on-site air monitoring and having on-site personnel wear the appropriate personnel protective equipment. Air monitoring will be performed using a portable organic vapor meter (OVM). Initial OVM readings will be made prior to sampling in order to establish background concentrations. Subsequent to establishing background levels, sampling or drilling operations will commence and the following level of protection will be adhered to:

Level D

* Respiratory Protection - not required
* Dermal Protection - normal work clothes and disposable gloves
* Other Equipment - hard hat, eye and ear protection, steel-toed boots, high-visibility vests

If, using the OVM, concentrations exceed 300 ppm above background, the field activities will be immediately halted in that location. Finally, PES will be prepared to halt operations or control emissions, if any, if it appears that any nuisance emissions are evident.

Decontamination procedures for on-site personnel consist of being required to wash their hands after performing any on-site activities and/or prior to ingestion of food or liquids.

Physical Hazards

The potential mechanical hazards associated with the drilling equipment, if used, will be avoided by maintaining adequate clearance around operating equipment. To implement this, safety cones or barricades will be placed in a 10-foot radius around the work area. While working at the site, the field personnel must be aware of heavy equipment movement and general traffic, including drill rig operations. The location of the emergency shut-off switch for the rig will be noted by each field person.

The potential electrical hazards that may exist in underground utilities will be avoided by performing a utility survey on the Site before drilling.

All personnel must be aware of potential tripping or falling hazards and shall exert due caution when walking around the property.

All personnel will be required to wear ear protection when working near heavy equipment.

SITE CONTROL MEASURES

The PES Project geologist, Mr. Trumbly, will be in charge of on-site activities and will be responsible for site control. As the project includes drilling near walkways and in city streets, access to the site will be limited to ensure the safety of the general public. The active work area will be defined by safety tape, cones, barricades, or other suitable methods.

Communication between field team members will consist of verbal communications.

WORK PRACTICES

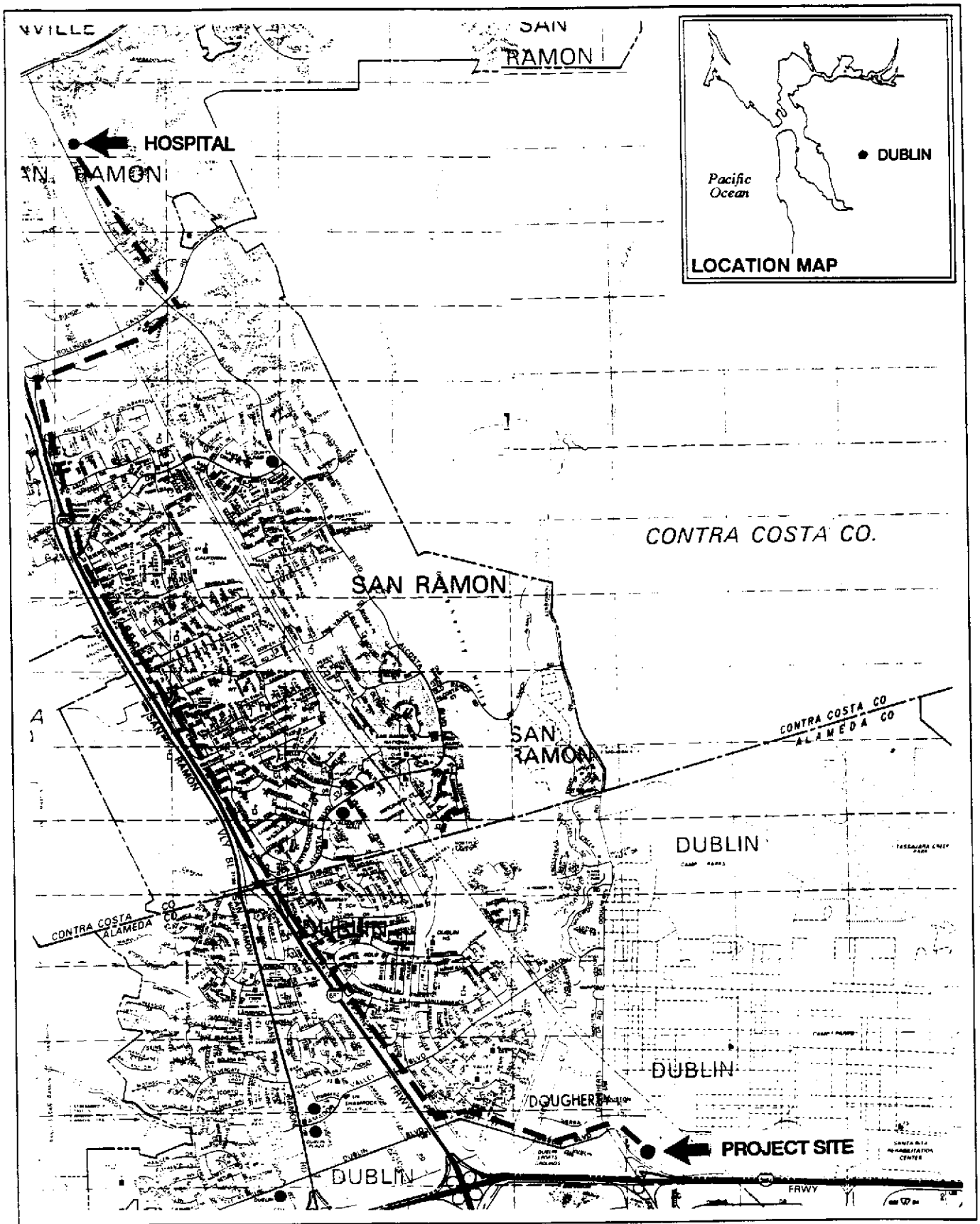
Safe work practices to be employed during the entire progress of field work are as follows:

- Set up, assemble and check out all equipment for integrity and proper function prior to starting work activities;
- Do not use faulty or suspect equipment;
- Use only new and intact protective clothing. Change the suit, gloves, or other protective clothing if torn; and
- Do not use hands to wipe sweat away from face. Use a clean towel or paper towels.

TRAINING AND MEDICAL MONITORING

All PES employees have fulfilled the applicable training and medical monitoring requirements described in 40 CFR 1910.120. All subcontractors to PES shall provide evidence of having met the same requirements prior to performing on-site work.

Also, immediately prior to initiating field activities, a tailgate training session shall be held to discuss this HSP and the procedures contained herein.



PES Environmental, Inc.
Engineering & Environmental Services

Site Location and Hospital Route Map
Dublin Rock and Ready Mix
Dublin, California

PLATE **1**

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE	REVISED DATE
DL001A		**11/91**		