



GETTLER-RYAN INC.

October 6, 1995

Ms. Eva Chu
Alameda County Dept of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502-6577

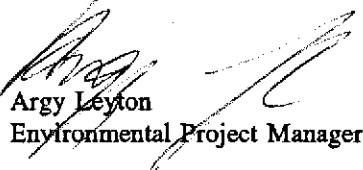
Re: Former Chevron Service Station #9-2582
7420 Dublin Boulevard

Dear Ms. Chu:

On behalf of Chevron USA Products Company, we are enclosing the workplan for the installation of two off-site groundwater monitoring wells. Upon your approval of the workplan, Gettler-Ryan is prepared to initiate field activities. As required, your office will be notified a minimum of 24 hours prior to well installation activities.

Please do not hesitate to call me at (510) 551-7555 if you have any questions or comments regarding the proposed work.

Sincerely,


Argy Leyton
Environmental Project Manager

/aml

cc: Mr. Brett Hunter, Chevron USA Products Company

① Do utility trench ^{+ drainage ditch} investigation
② move proposal MW-4 southwest
~bd

OCT 13 1995



GETTLER-RYAN INC.

WELL INSTALLATION WORKPLAN

for

Former Chevron Service Station #9-2582
7240 Dublin Boulevard
Dublin, California

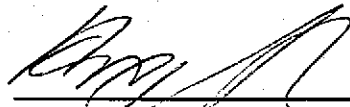
Gettler-Ryan Inc. Job # 5274.01


prepared for

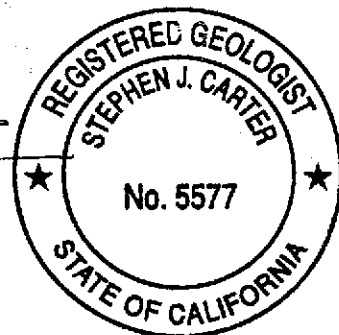
Chevron USA Products Company
P.O. Box 5004
San Ramon, California 94583

prepared by

Gettler Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568


Argy Leyton
Environmental Project Manager


Stephen J. Carter
Senior Geologist
RG #5577



11-12' mw-3; 12-13' mw-1
① Verify historic D well
will likely trench affect
migration of TAA.
② How deep is drainage
ditch

October 9, 1995

TABLE OF CONTENTS

INTRODUCTION.....	1
SITE HISTORY.....	1
GEOLOGIC DESCRIPTION.....	2
PROPOSED SCOPE OF WORK.....	3

FIGURES

FIGURE 1: SITE VICINITY MAP

FIGURE 2: GROUNDWATER MONITORING WELL LOCATION MAP

APPENDIX

SITE SAFETY PLAN

WELL INSTALLATION WORKPLAN
for
Former Chevron Service Station #9-2582
7420 Dublin Boulevard
Dublin, California

INTRODUCTION

Gettler-Ryan, Inc. (G-R) is pleased to present this workplan for the installation of two off-site groundwater monitoring wells at the above-referenced location (Figure 1). The groundwater monitoring wells will be installed to assess the absence or presence of dissolved hydrocarbons in groundwater and to verify the groundwater flow direction and gradient beneath the site. A file review will be performed to assess the possibility of underground utilities serving as pathways for contaminant off-site migration.

SITE HISTORY

The following site history was obtained from Chevron project files supplied to Gettler-Ryan, Inc.

In February 1989, three underground storage tanks (USTs) were removed from the site. Blaine Tech Services, Inc. (Blaine) of San Jose, California collected soil and groundwater samples during the UST removal. Analytical results indicated that hydrocarbons were present in soil and groundwater beneath the site.

In March 1989, Western Geologic Resources (WGR) supervised the excavation of approximately 180 cubic yards (cy) of pea gravel. Approximately 2,850 gallons of hydrocarbon-impacted groundwater were pumped out of the excavation. Soil and groundwater removed from the site were disposed of at appropriate disposal facilities. Details of this work were previously reported.¹

In May 1989, an additional excavation was performed by WGR. Approximately 100 cy of hydrocarbon-impacted soil was excavated from the site. Details of this work were previously reported.²

¹ Western Geologic Resources, 1989, Consultant's Report on Soil Excavation Activities, Former Chevron Service Station #9-2582, 7420 Dublin Boulevard, Dublin, California, April 12, 1989.

² Western Geologic Resources, 1989, Consultant's Report on Soil Excavation Activities, Former Chevron Service Station #9-2582, 7420 Dublin Boulevard, Dublin, California, August 1989.

On May 23, 1989, representatives from WGR and Chevron met with Gil Wistar, of the Alameda County Health Care Services Agency to discuss the implementation of a soil vapor extraction system in the vicinity of the pump islands. The installation of a soil-vapor system was approved, the excavation process was terminated, the 100 cy of soil previously removed by WGR was disposed of at an appropriate landfill and the excavated area was backfilled with pea gravel in June 1989. WGR staff coordinated the installation of underground piping for a future soil-vapor extraction system. The piping was installed near the pump islands and in the underground storage tank backfill.

In August 1989, after three on-site monitoring wells (EA-1, EA-2 and EA-3) had been installed at the site, groundwater samples were collected and analyzed from the site. Hydrocarbons as gasoline and aromatic hydrocarbons were not detected in any of the monitoring wells. However, groundwater samples collected and analyzed from the tank backfill well indicated that hydrocarbons as gasoline were present in groundwater in the tank backfill well at concentrations of 100,000 parts per billion (ppb). Details of the well installation activities are not available for inclusion in this workplan and were previously reported.³

In July 1990, WGR installed three vadose zone monitoring wells (VW-1, VW-2 and VW-3). A soil vapor extraction test was performed at the site. Details of this work were previously reported.⁴

GEOLOGIC SETTING

The site is located in Alameda County, in the City of Dublin. The site is located in the Amador Valley which is located between the Sunol Ridge to the west and the Dougherty Hills to the east. Elevation in the site vicinity is approximately 360 feet above sea level. The closest surface water is the Dublin Creek is located approximately 100 feet northwest of the site.⁵

The site is located within the Tassajara Formation in the Great Valley Sequence. The site vicinity is composed of lacustrine deposits of poorly consolidated claystones and interbedded with sandstone, conglomerates,

³ Western Geologic Resources, 1989, Consultant's Report on Well Installation Activities, Former Chevron Service Station #9-2582, 7420 Dublin Boulevard, Dublin, California, October 30, 1989.

⁴ Western Geologic Resources, 1990, Consultant's Report on Vadose Zone Characterization, Former Chevron Service Station #9-2582, 7420 Dublin Boulevard, Dublin, California, July 17, 1990.

⁵ United States Geological Survey, 1980, Map of the Dublin Quadrangle, 7.5 minute, 1:24,000.

dolomite and limestone. Expansive soils are common, leading to creep-related movements on adjacent slopes.⁶ The site is tectonically bounded by the Hayward Fault to the west and the Calaveras Fault to the east.

Based on previous subsurface investigations, the site is generally underlain by low-permeability clays and silts. Based on historical groundwater sampling events, groundwater is encountered 20 to 25 feet below existing grade and flows northwesterly.

PROPOSED WORK

To further evaluate the absence or presence of hydrocarbons at the subject site and verify groundwater flow direction and gradient, G-R proposes the following scope of work:

1. Prepare a site-specific health and safety plan for the proposed work.
2. Perform an agency file review to assess the possibility of underground utilities serving as pathways for off-site contaminant migration.
3. Drill two on-site soil borings to a depth of approximately 25 feet below ground surface. The soil samples from the borings will be surveyed in the field with an organic vapor meter (OVM) to determine whether volatile hydrocarbons are present in the samples. OVM readings and field observations will be used to select soil samples from the monitoring well borings for analysis. At a minimum, one soil sample for chemical analysis will be collected from above the capillary fringe. Selected sample(s) will be analyzed for total purgeable petroleum hydrocarbons as gasoline [TPPH(G)], and benzene, toluene, ethylbenzene, and xylenes (BTEX).
4. Install one 2-inch diameter monitoring well in each boring.
5. Develop the newly installed wells. Sample the new wells. Analyze the groundwater samples from the newly installed wells for TPPH(G) and BTEX.
6. Survey the top of casing elevation of the newly installed wells. Measure depth to groundwater and product thickness (if present) in all wells. The survey and water level data will be used to verify the groundwater flow direction and gradient beneath the site.
7. Arrange for disposal of the drill cuttings from the borings, the steam-cleaning rinseate and the monitoring well purge water.
8. Report the results.

⁶ California Department of Conservation, Division of Mines and Geology, 1986, DMG Open File Report 86-7, Landslide Hazards in Parts of the Diablo and Dublin 7.5 Minute Quadrangles, Contra Costa County, 1:24,000.

Each of these tasks is described below.

Task 1 - Site Safety Plan

Using available site history information, G-R has prepared a site-specific health and safety plan. The safety plan will identify potential site hazards and specify procedures to protect site workers and surrounding community. The safety plan will be on-site during field operations. The site safety plan is presented in the appendix.

Task 2 - Agency Review

Prior to well installation activities, G-R personnel will perform an agency file review to determine if any underground utilities are located in Dublin Boulevard adjacent to the site. The review will include but is not limited to the review of local sewer agencies and public works files. If utilities are present in Dublin Boulevard, the location, burial depth, diameter, and other pertinent construction details will be obtained. Results of the agency file review will be included in the final report.

Tasks 3 and 4 - Drilling and Monitoring Well Installation

Two off-site soil borings (MW-4 and MW-5) will be drilled at the locations shown on Figure 2 and a monitoring well will be installed in each of the borings.

The wells will be drilled by Bay Area Exploration, Inc. of Cordelia, California, C57 license #522125. Prior to drilling, Underground Service Alert (USA) will be notified and non-USA member utilities will be located by a private underground utility locator.

All drilling equipment will be steam-cleaned prior to use and all sampling equipment will be washed between samples using an EPA-approved detergent such as Alconox and rinsed with potable water.

The borings will be logged in accordance with Gettler-Ryan standard operating procedures.

Soil samples will be collected at 5 foot intervals, at a minimum, or at changes of soil type or if hydrocarbon staining is present. Soil samples will be collected in clean or new stainless steel or brass sleeves. A soil sample will be collected from the capillary fringe in the borings.

The soil samples will be screened in the field with an OVM. If hydrocarbons are detected with the OVM or product odor is noted by the field geologist in the soil sample from the bottom of the proposed well/borings, G-R personnel will attempt to collect sufficient samples to define the vertical extent of hydrocarbons in the boring.

Drill cuttings will be stored on-site on visqueen sheeting and covered with visqueen pending disposal by Integrated Waste Management of Milpitas, California.

The soil samples from the borings will be analyzed for TPPH(G) and BTEX by EPA Methods 5030/8015 and 8020, respectively. All quality assurance/quality control (QA/QC) data from the laboratory will be included in the well installation report.

Information from the previous subsurface work performed at the site indicate that the soils in the site vicinity are relatively fine-grained. The wells will be constructed with 0.020-inch machine-slotted well screen for the monitoring well and #2/12 sand for gravel pack around the well screen.

Task 5 - Well Development, Groundwater Sampling and Analysis

The monitoring wells will be developed no sooner than 72 hours after drilling with a vented surge block and bailing. Groundwater will be removed using steam-cleaned polyvinyl-chloride (PVC) bailers. Groundwater removed from the wells will be transported to the Chevron Refinery in Richmond, California.

Groundwater samples will be collected from all site wells no sooner than 24 hours after development of the newly installed wells. Groundwater samples will be collected according to G-R Standard Operating Procedure - Quarterly Groundwater Sampling. The evacuated water will be transported to the Chevron Refinery in Richmond, California.

The water samples will be collected using Chevron-approved disposable bailers. Sample containers will be provided by the analytic laboratory prior to sampling. After groundwater samples are collected, they will be labeled and maintained at 4°C prior to delivery to the analytical laboratory. Chain-of-custody records will be maintained for the samples. A trip blank will accompany the samples to the laboratory.

Groundwater samples from the wells and the trip blank will be analyzed for TPPH(G) and BTEX by EPA Methods 5030/8015 and 8020, respectively. All QA/QC data from the laboratory will be included in the well installation report.

Task 6 - Surveying and Groundwater Gradient

The top of casing elevation of the new wells will be surveyed by a licensed land-surveyor. The casing will be surveyed relative to mean sea level.

Water and product (if present) levels will be measured in all site wells using an MMC flexi-dip interface probe. Water and product (if present) levels will be reported to the nearest 1/100th of a foot. A potentiometric map will be prepared using survey and water level data.

Task 7 - Drill Cuttings, Steam-cleaning Rinseate and Monitoring Well Purge Water Disposal

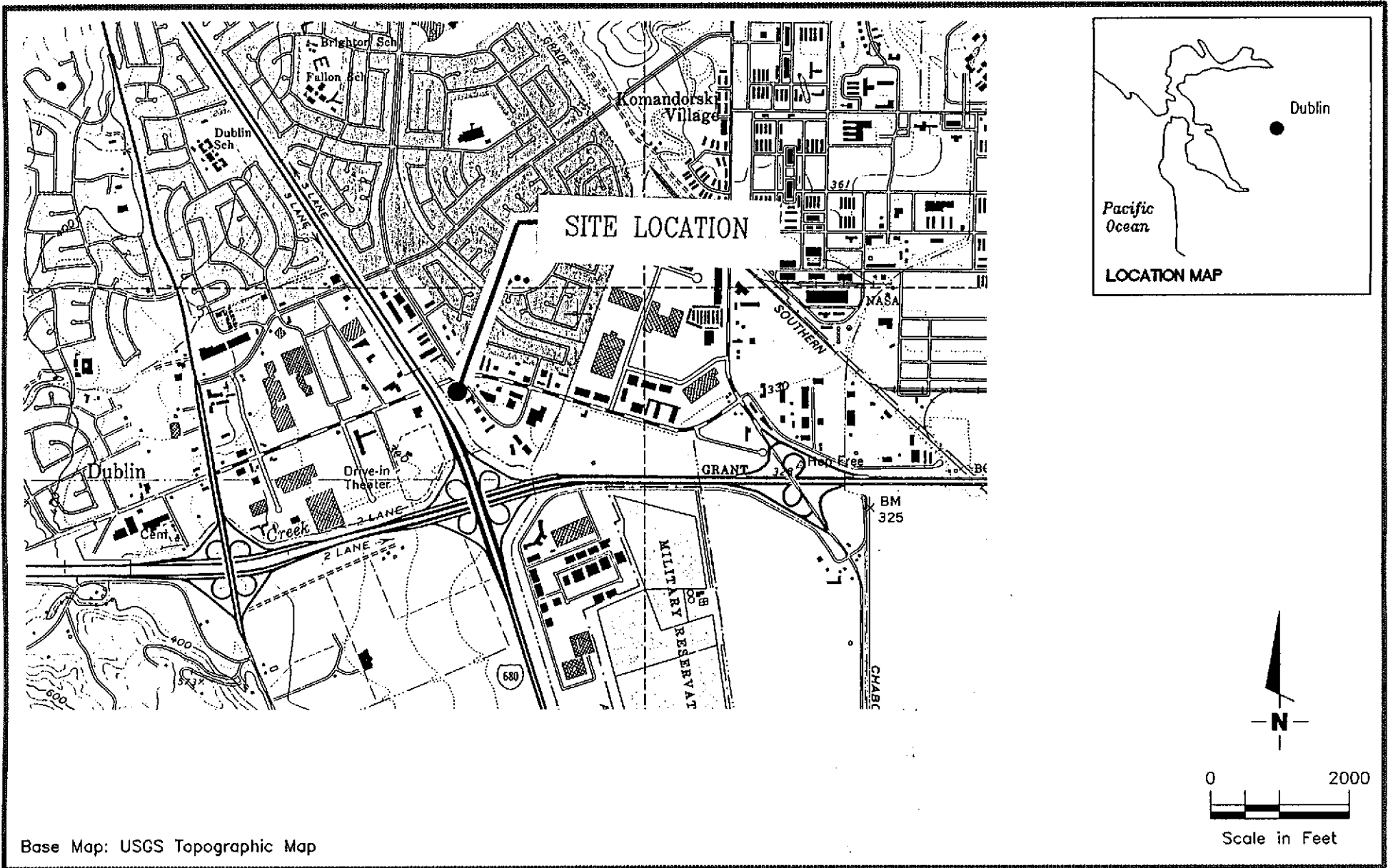
The soil cuttings will be stored on-site on visqueen sheeting and covered with visqueen pending disposal by Integrated Waste Management of Milpitas, California.

The steam-cleaning rinseate and well development and purge water will be transported to the Chevron Refinery in Richmond, California.

Task 8 - Report

The report will be prepared and the field work conducted under the supervision of Stephen J. Carter, a California Registered Geologist (R.G. #5577).

FIGURES



Base Map: USGS Topographic Map



Gettler - Ryan Inc.

6747 Sierra Ct., Suite J (510) 551-7555
 Dublin, CA 94568

VICINITY MAP
 Former Chevron Service Station No. 9-2582
 7240 Dublin Boulevard
 Dublin, California

FIGURE

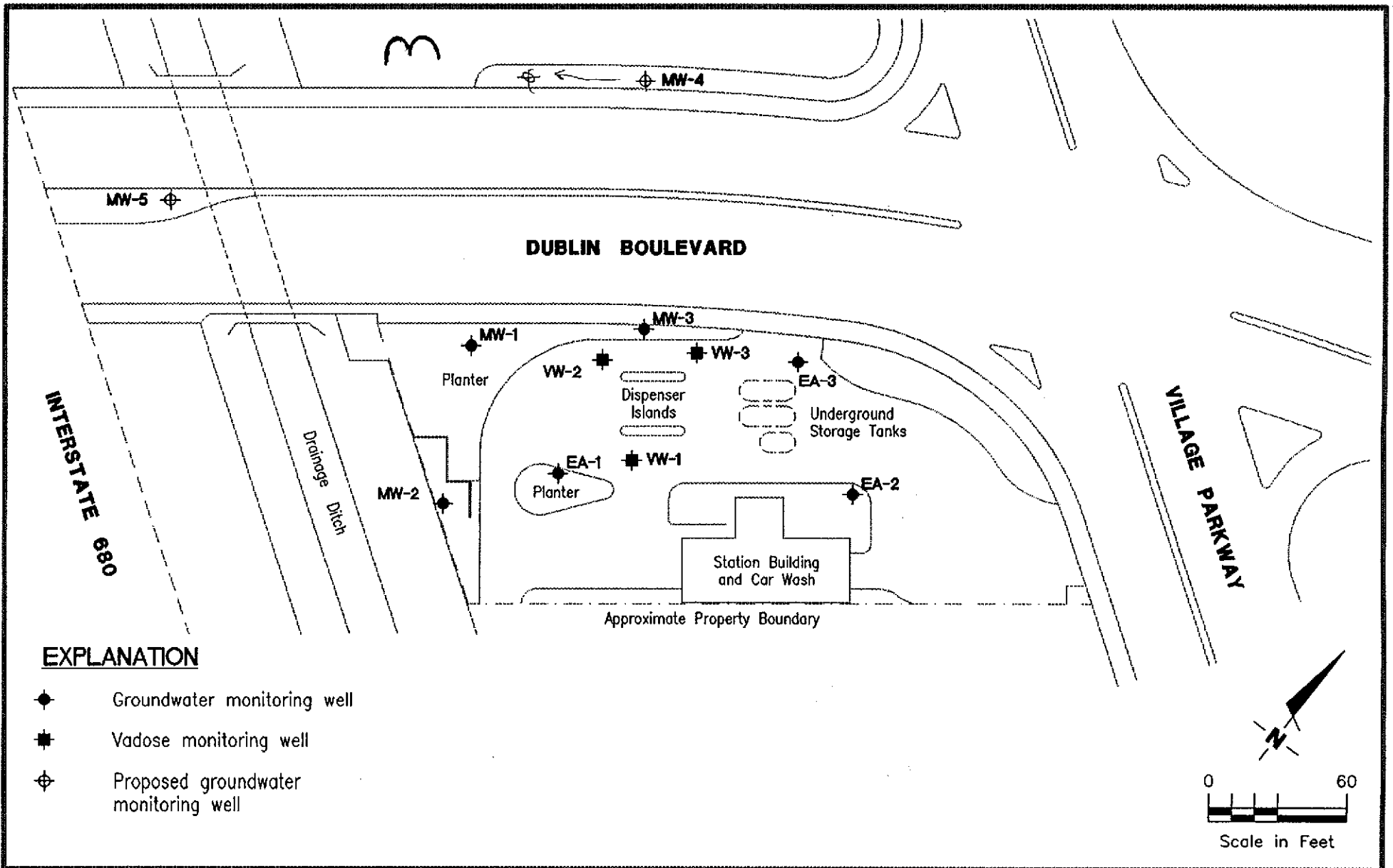
1

JOB NUMBER
 5274

REVIEWED BY

DATE
 October, 1995

REVISED DATE



EXPLANATION

- ◆ Groundwater monitoring well
- Vadose monitoring well
- ⊕ Proposed groundwater monitoring well



Gertler - Ryan Inc.

6747 Sierra Ct., Suite J (510) 551-7555
Dublin, CA 94568

EXISTING & PROPOSED MONITORING WELL LOCATION MAP

Former Chevron Service Station No. 9-2582
7240 Dublin Boulevard
Dublin, California

FIGURE

2

JOB NUMBER
5274.01

REVIEWED BY

DATE
October, 1995

REVISED DATE

APPENDIX

Site Safety Plan

Job #5274.01

1.0 GENERAL INFORMATION

Company: Chevron USA Products Company
Location: Former Service Station #9-2582, 7420 Dublin Boulevard, Dublin, CA

Client Contact: Brett Hunter 510-842-8695
Gettler-Ryan Contact: Argy Leyton 510-551-7555

Date Prepared: October 6, 1995

Proposed Work Date(s): October 1995

Work Objective: Install two off-site monitoring wells
Develop the new wells

Site History: Site was formerly used as a service station.

Current Status: Site is currently a vacant lot.

Underground utilities will located by: Private Locator USA

2.0 WASTE CHARACTERISTICS

Waste Types: Solid, Liquid, Vapor

Waste Characteristics: Volatile, Flammable, Toxic, Carcinogenic

Amount of Waste to be Generated: ~ 1 cy soil, ~ 55 gallons steam-cleaning rinseate

Waste Containment: Soil will be placed on visqueen sheeting and covered with visqueen, pending disposal by IWM. Steam-cleaning rinseate will be transported to the Chevron Refinery in Richmond

3.0 HAZARD EVALUATION

Physical:

Trip Fall Splash Below Grade Overhead Traffic Heavy Equipment
Other:

Anticipated Chemicals:

Gasoline, BTEX

Routes of Exposure: Inhalation, Ingestion, Absorption, Injection

Overall Hazard evaluation: Low Moderate High Unknown

Basis for hazard evaluation: Previous Analytic Data
Site conditions

Chemical parameters:

Element	PEL(ppm)	Action Level(ppm)
Gasoline	---	150
Benzene	1	.5
Toluene	100	50
Ethylbenzene	100	50
Xylenes	100	50

Work will be conducted in level D modified conditions (hard hats, red vests and gloves) unless site conditions necessitate upgrading to level C conditions. Level B protection is not considered at this site.

4.0 SITE SAFETY WORKPLAN

Site Perimeter: Work zones will be defined around each boring location and secured. Contamination (hot zones) will be identified and public access will be prohibited.

Personal Protection: Work will be conducted at level D modified conditions. If odor is present, air monitoring will be implemented.

If air monitoring indicates concentration levels at or above the action levels, site personnel will upgrade to level C conditions. Air monitoring will be performed at intervals no greater than once every hour. Air monitoring will be conducted using an organic vapor meter calibrated to 100 ppm isobutyl. If ovm readings exceed 300 ppm, benzene air monitoring will be implemented with draeger tubes. Should off-site air monitoring exceed 200 ppm ovm readings or 0.5 ppm benzene, site work will cease immediately and site personnel will re-assess work conditions.

Decontamination: Personnel
Wash thoroughly with detergent solution and water

Equipment
Steam-clean all drilling and sampling equipment and tools.

Investigation-derived material disposal:

Soil generated during site work will be placed on visqueen sheeting and covered with visqueen pending removal. Steam-cleaning rinseate will be transported to the Chevron Refinery in Richmond.

Field Personnel:

Work Limitations: To minimize impact to the public, work will be conducted during the hours of 7:30 a.m. to 7:30 p.m.

5.0 EMERGENCY INFORMATION

Client Contact: Brett Hunter, Chevron USA

Phone Number: 510-842-8695

Project Manager: Argy Leyton

Phone Number: 510-551-7555

Hospital: VALLEY CARE MEDICAL CENTER
5555 WEST LAS POSITAS BLVD.
PLEASANTON, CA 510-847-3000

Ambulance: 911

Police Department: 911

Fire Department: 911

Directions to Hospital: Take Dublin Blvd. (east) to Dougherty Road/Hopyard Blvd. Turn right (south) on Hopyard Blvd. Turn left (east) on West Las Positas Blvd., Valley Memorial Hospital is located on left side of street.

See Attached Map

SITE SAFETY MEETING

JOB #: _____ DATE: _____ TIME: _____

SITE LOCATION: _____

WORK DESCRIPTION: _____

PHYSICAL HAZARDS: _____

ANTICIPATED CONTAMINANTS: _____

PERSONAL PROTECTION LEVEL: _____

DECONTAMINATION PROCEDURES: _____

SPECIAL SITE CONDITIONS: _____

EQUIPMENT CALIBRATED THIS DAY _____ MAP POSTED _____

ALL MEMBERS FAMILIAR WITH EMERGENCY PROCEDURES _____

DIRECTIONS TO HOSPITAL _____

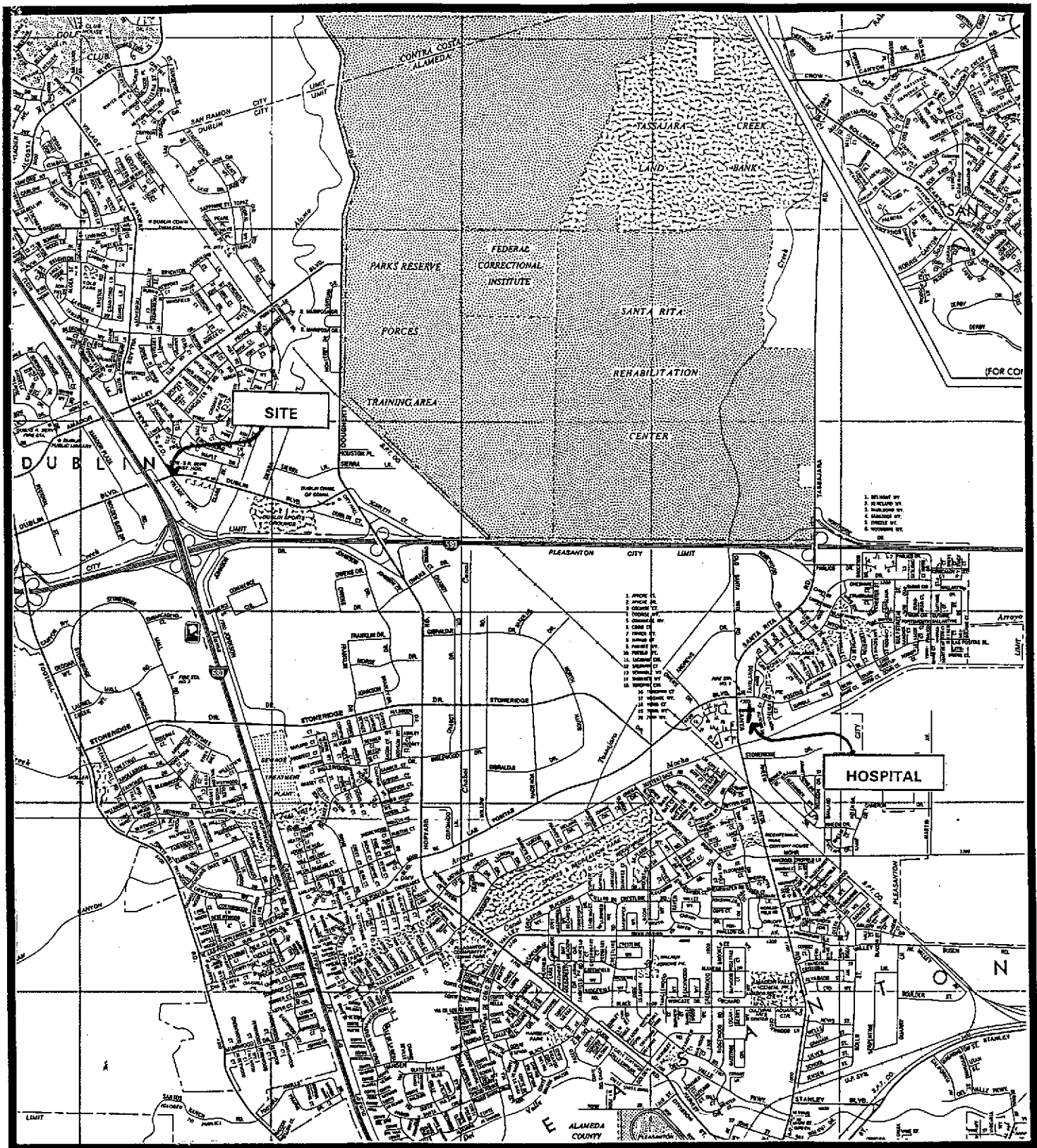
PERSONNEL PRESENT AT MEETING:

NAME

SIGNATURE

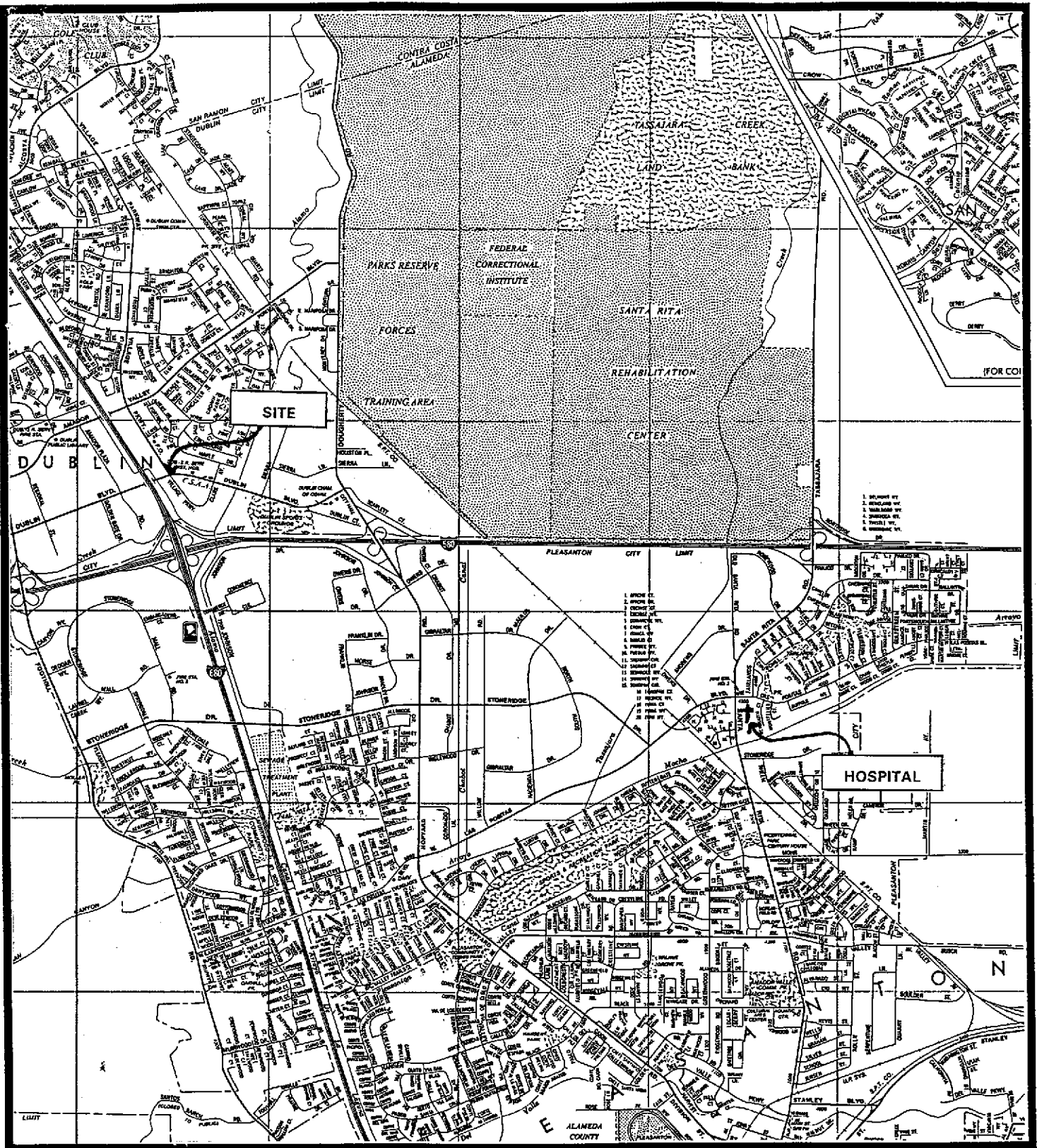
SITE SAFETY OFFICER: _____

MEETING CONDUCTED BY: _____



SITE: FORMER CHEVRON SS #9-2582
 7420 DUBLIN BOULEVARD
 DUBLIN, CA
 (G-R JOB #5274.01)

HOSPITAL: VALLEY CARE MEDICAL
 5555 W, LAS POSITAS
 PLEASANTON, CA
 (916) 847-3000



SITE: FORMER CHEVRON SS #9-2582
 7420 DUBLIN BOULEVARD
 DUBLIN, CA
 (G-R JOB #5274.01)

HOSPITAL: VALLEY CARE MEDICAL
 5555 W, LAS POSITAS
 PLEASANTON, CA
 (916) 847-3000