



August 4, 2010

Alameda County Department of  
Environmental Health  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, CA 94502

Attention: Paresh Khatri

Subject: Report of Soil Gas Sampling Activities  
Dublin Toyota UST Site, 6450 Dublin Court, Dublin, California  
Alameda County Fuel Leak Case No. RO000333

Ladies and Gentlemen:

Attached please find a copy of the *Report of Soil Gas Sampling Activities, Dublin Toyota UST Site, 6450 Dublin Court, Dublin, California*, prepared by Gribi Associates. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Very truly yours,

A handwritten signature in black ink that reads "Scott F. Anderson".

Scott F. Anderson  
Chief Financial Officer  
Dublin Toyota

**RECEIVED**

9:38 am, Aug 05, 2010

Alameda County  
Environmental Health



6450 DUBLIN COURT • DUBLIN • CA 94568 • 925 829-7700 • FAX 925 829-9025

[www.dublintoysota.com](http://www.dublintoysota.com)

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**REPORT OF SOIL GAS SAMPLING ACTIVITIES**

**Dublin Toyota UST Site  
6450 Dublin Court  
Dublin, California**

**ACEH RO# 0000333**

Prepared for:

Dublin Toyota  
4321 Toyota Drive  
Dublin, CA 94568

August 4, 2010



**GEOLOGIC & ENVIRONMENTAL CONSULTING SERVICES**

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Ladies and Gentlemen:

Gribi Associates is pleased to submit this *Report of Soil Gas Sampling Activities* on behalf of Dublin Toyota for the underground storage tank (UST) site located at 6450 Dublin Court in Dublin, California. This report describes and documents the collection and analysis of four soil gas samples in the former underground storage tank (UST) area on the site. The activities were conducted to further characterize potential risks associated with residual subsurface hydrocarbon impacts.

We appreciate the opportunity to present this report for your review. Please call if you have any questions or require additional information.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'MAR', is placed over a light blue rectangular background.

Matthew A. Rosman  
Project Engineer

A handwritten signature in black ink, appearing to read 'James E. Gribi', is written in a cursive style.

James E. Gribi  
Professional Geologist  
California No. 5843



MAR:JEG/ct

cc: Mr. Scott Anderson, Dublin Toyota  
Mr. Wyman Hong, Zone 7 Water Agency

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## EXECUTIVE SUMMARY

Gribi Associates is pleased to submit this *Report of Soil Gas Sampling Activities* on behalf of Dublin Toyota for the underground storage tank (UST) site located at 6450 Dublin Court in Dublin, California. This report describes and documents the collection and analysis of four soil gas samples in the former underground storage tank (UST) area on the site. The activities were conducted to further characterize potential risks associated with residual subsurface hydrocarbon impacts.

Four soil gas samples, SG-1 through SG-4, were collected and analyzed in the former UST area. Soil gas sampling activities were conducted in accordance with the approved workplan and with applicable guidelines and statutes. In addition, leak detection monitoring results indicate that leaks in the sample train were insignificant.

Soil gas sampling results indicate a possible risk relative to indoor air exposure in the former detail shop, which directly overlies the former Site UST excavation cavity. Soil gas hydrocarbon concentrations were highest in sample SG-1, collected in the former Site UST excavation cavity area. TPH-G and Benzene concentrations in the SG-1 sample were 1,400,000 micrograms per cubic meter ( $\text{ug}/\text{m}^3$ ) and  $810 \text{ ug}/\text{m}^3$ , respectively. These TPH-G and Benzene concentrations are significantly higher than their respective residential land use environmental screening levels (ESLs) of  $10,000 \text{ ug}/\text{m}^3$  and  $84 \text{ ug}/\text{m}^3$ , and are also elevated relative to the respective commercial land use TPH-G and Benzene ESLs of  $29,000 \text{ ug}/\text{m}^3$  and  $290 \text{ ug}/\text{m}^3$ . The soil gas TPH-G concentration in SG-2, also located within the former UST excavation cavity, was also elevated relative to both residential and commercial land use ESLs; however, the Benzene concentration at SG-2 was at or below both residential and commercial land use ESLs.

Soil gas hydrocarbon concentrations at sample locations SG-3 and SG-4, located downgradient from the former UST cavity within the adjoining main vehicle maintenance building, exceeded residential land use ESLs, but did not exceed commercial land use ESLs. Thus, these sampling results do not indicate significant risk relative to occupational (commercial land use) indoor air exposure.

Based on the results of this and previous investigations which have generally shown elevated hydrocarbon impacts in the former UST source area and in downgradient shallow groundwater, we recommend the preparation of a Corrective Action Plan (CAP) for the Site to address mitigation of these impacts.

## 1.0 INTRODUCTION

Gribi Associates is pleased to submit this *Report of Soil Gas Sampling Activities* on behalf of Dublin Toyota for the underground storage tank (UST) site located at 6450 Dublin Court in Dublin, California (Site) (see Figure 1 and Figure 2). This letter report describes and documents the collection and analysis of four soil gas samples in the former underground storage tank (UST) area on the site. The activities were conducted to further characterize potential risks associated with residual subsurface hydrocarbon impacts.

### 1.1 Scope of Work

Gribi Associates was contracted by the Dublin Toyota to conduct the following scope of work.

- **Task 1 Conduct prefield activities.**
- **Task 2 Conduct collection of four soil gas samples.**
- **Task 3 Conduct laboratory analyses.**
- **Task 4 Prepare report of findings.**

These tasks were conducted in accordance with the approved workplan and with generally accepted sampling guidelines and protocols.

### 1.2 Limitations

The services provided under this contract as described in this report include professional opinions and judgments based on data collected. These services have been provided according to generally accepted environmental protocol. The opinions and conclusions contained in this report are typically based on information obtained from:

1. Observations and measurements made by our field staff.
2. Contacts and discussions with regulatory agencies and others.
3. Review of available hydrogeologic data.

## 2.0 SITE BACKGROUND

### 2.1 General Site Description

The Site is located in a primarily commercial area of Dublin, California and is formerly the location of the Dublin Toyota/Scion automobile dealership (Figures 1 and 2). The site comprises an irregularly shaped land parcel of nearly 3.5 acres. An irregularly shaped building is located in the center of the site parcel that formerly housed the business activities of the dealership. The west portion of the site building was primarily a show room and sales area, and the east portion of the site building was primarily used as an automotive service area. The outside areas of the site are entirely asphalt-paved. The site is presently occupied La Mesa RV, an RV dealership, which uses the site in a similar capacity to the former automobile dealership.

The Site is bounded to the south by Interstate 580 freeway, to the west by Dublin Sports Grounds Park, to the north by Dublin Court followed by a retail plaza, and to the east by an office-supply warehouse store.

## 2.2 Site Environmental Conditions

### 2.2.1 Past Environmental Investigation and Remediation Activities

The Dublin Toyota UST site consisted of three USTs located in a common tank farm located adjacent to the northeast corner of the maintenance garage (see Figure 2). The tank farm was composed of two 2,000-gallon steel gasoline tanks and one 1,000-gallon steel waste oil tank. The three USTs were removed from a common excavation by Scott Company on June 10, 1998. Based on soil and grab groundwater sampling results, which showed elevated levels of gasoline- and diesel-range hydrocarbons, the UST excavation cavity was over-excavated, and approximately 500 gallons of groundwater was pumped from the excavation cavity. Approximately 92 tons of hydrocarbon-impacted soil were disposed of offsite.

In December 1998, Gribi Associates drilled and sampled four investigative soil borings (IB-1 through IB-4), and drilled, installed, and sampled two groundwater monitoring wells (MW-1 and MW-2) at the site. Soil and groundwater samples collected from the borings and wells contained no significant levels of hydrocarbons, except for the groundwater sample from well MW-1, located about 15 feet southwest from the former UST cavity. Groundwater samples from this well contained elevated levels of methyl tert-butyl ether (MTBE).

In August 2000, Gribi Associates drilled and sampled one soil boring (IB-5) sited inside the Dublin Toyota service building west from the former USTs, and drilled, installed, and sampled one groundwater monitoring well (MW-3) sited south-southwest from the former USTs. Soil analytical results from these borings showed no detectable concentrations of gasoline-range hydrocarbons. Groundwater samples from these borings showed concentrations of MTBE that were significantly lower than MTBE concentrations in MW-1, indicating lateral attenuation of MTBE impacts in groundwater southwest from the former USTs. Subsequent groundwater monitoring of the three site groundwater monitoring wells in May 2002, November 2002, and April 2003 showed decreasing concentrations of MTBE in MW-1.

In May 2005, a soil and water investigation (SWI) was conducted that consisted of drilling and sampling twelve soil boring (B-1 through B-12) at the site (*SWI Summary of Findings*, Gribi Associates, June 2005). Results of the investigation indicated groundwater MTBE impacts in a shallow "A" zone immediately downgradient from the source (former location of site USTs) and in a deeper "B" zone further downgradient from the source. The SWI summary report included a brief workplan proposing the installation of ten groundwater monitoring wells, to include four shallow "A" zone wells and six deeper "B" zone wells.

In July 2005, two 2-inch diameter extraction wells (EW-1 and EW-2) were installed in a carwash bay of the Dublin Toyota facility to a depth of approximately 15 feet below surface grade. The extraction wells were constructed within the gravel backfill of the former UST excavation.

Between February and April 2006, Gribi Associates conducted seven aggressive fluid vapor recovery (AFVR) events (*Report or Interim Remedial Measures*, Gribi Associates, April 2006).



Each event consisted of approximately four hours of extraction of soil vapor and groundwater at wells EW-1 and EW-2 using a vacuum truck. During the AFVR events, groundwater and vapor samples were collected to monitor remedial progress. The combined total estimated volume of removed groundwater (approximately 3,200 gallons) and the combined total estimated mass of removed gasoline-range hydrocarbons (four pounds) during the seven AFVR events were relatively small. These results indicated that AFVR had only limited applicability as a source area remedial option for the project site. Given the results and conclusions, implementation of additional AFVR activities at the site was not recommended.

In April 2006, Gribi Associates drilled and installed ten 3/4-inch diameter groundwater monitoring wells (MW-4S, MW-4D, MW-5S, MW-5D, MW-6S, MW-6D, MW-7, MW-8, MW-9, and MW-10) at the site. The locations of the monitoring wells closely mirrored the locations of the soil borings conducted during the 2005 investigation. Results of groundwater monitoring and sampling were very similar to results from the soil and water investigation conducted in May 2005. Groundwater results show elevated MTBE concentrations in Zone A (shallow aquifer, above 20 feet in depth) immediately downgradient from the former UST excavation and elevated MTBE levels in Zone B (deeper aquifer, between 30 and 40 feet bgs) further downgradient from the former UST excavation.

### 2.2.2 *Recent Site Environmental Investigation Activities*

Recent site investigations included: (1) A downgradient CPT investigation, described and reported in *Report of CPT Groundwater Investigation, Dublin Toyota UST Site, 6450 Dublin Court, Dublin, California*, (Gribi Associates, June 19, 2009); and (2) A source area direct-push soil boring investigation, described and reported in *Source Area Soil Boring Investigation Report, Dublin Toyota UST Site, 6450 Dublin Court, Dublin, California*, (Gribi Associates, October 6, 2009).

In April 2009, Gribi Associates conducted a cone penetrometer (CPT) investigation that comprised the drilling of four onsite borings (CPT-1 through CPT-4) and three offsite borings (CPT-5, CPT-6, and CPT-7). Results of this investigation showed a fairly pervasive permeable thin sand zone, previously identified as the “B” Zone, between approximately 30 and 35 feet bgs. This zone was present in all borings except downgradient borings CPT-6 and CPT-7, the respective middle and westerly CPT borings on Johnson Drive. Groundwater analytical results from this investigation and from onsite “B” Zone wells MW-4D, MW-5D, MW-6D, MW-8, MW-9, and MW-10 define a groundwater MTBE plume in the “B” Zone that appears to extend southwest from the UST source area and then, apparently due to lithologic variability, turns to the south beneath US Interstate 580. This “B” Zone MTBE plume appears to extend at least as far south as CPT-5, in Johnson Drive approximately 500 feet south from the Dublin Toyota UST source area.

The CPT investigation identified two deeper unnamed sand zones, one between 50 and 60 feet bgs and the other between 70 and 80 feet bgs. Grab groundwater samples from these deeper water-bearing zones showed no detectable groundwater MTBE impacts. Thus, it appears that MTBE from the project site has migrated laterally in the “B” Zone, but has not migrated vertically deeper than the “B” Zone in significant quantities.

In order to provide additional long-term groundwater MTBE data, Gribi Associates recommended installing four “B” Zone groundwater monitoring wells. Three of these wells would be located near CPT boring locations CPT-3 (onsite, southwest corner), CPT-5 (Johnson Drive, east boring), and CPT-6 (Johnson Drive, middle boring). The fourth well would be located approximately 150 east of CPT-5.

On December 3, 2009, ACEH issued a letter requesting: (1) Justification that the oxygenate contaminants in the former UST source area do not pose a significant risk to human health or the environment or a scope of work to address the apparent risk posed by these contaminants; and (2) A workplan for additional wells to monitor downgradient “B” Zone groundwater oxygenate impacts. On January 5, 2010, Gribi Associates submitted the *Soil and Water Investigation Workplan* on January 5, 2010. This workplan proposed: (1) The installation and sampling of three shallow source area groundwater monitoring wells (MW-11, MW-12, and MW-13) and four downgradient “B” Zone groundwater monitoring wells (MW-14 through MW-17); and (2) The collection and analysis of four shallow soil gas samples (SG-1 through SG-4) in the former UST source area. The workplan was approved by ACEH in a letter dated February 10, 2010. The monitoring wells were previously installed between April 13 and April 15, 2010, and well installation activities were reported in *Report of Well Installation Activities* (Gribi Associates, May 14, 2010).

### **3.0 DESCRIPTION OF FIELD ACTIVITIES**

Soil gas sampling and analysis activities were conducted at the Site on Wednesday, July 14, 2010. All activities were conducted in accordance with the approved workplan and with applicable local, State, and Federal guidelines and statutes.

#### **3.1 Prefield Activities**

Prior to beginning field activities, written approval was obtained from ACEH. Also, a drilling permit (Permit No. 2010064) was obtained from Alameda County Zone 7 Water Agency and 72-hour notification was given prior to implementing field activities. A copy of the permit is included in Appendix A.

Prior to implementing field activities, proposed drilling locations were be marked with white paint, and Underground Services Alert (USA) was notified at least 48 hours prior to drilling. Also, a private underground utility locator was retained to conducted an independent clearance of the proposed well locations.

Prior to initiating drilling activities, a Site Safety Plan was prepared, and a tailgate safety meeting will be conducted with all site workers.

#### **3.2 Location of Soil Gas Samples**

Soil gas sample locations are shown on Figure 3. Soil gas samples SG-1 and SG-2 were collected inside the present vehicle detail area, directly above the former UST locations. Soil gas samples SG-3 and SG-4 were located inside the vehicle service building, immediately southwest from the former UST area.

### 3.3 Collection and Analysis of Soil Gas Samples

Soil gas sampling and analysis activities were conducted by Transglobal Environmental Group (TEG) using a direct push coring rig to collect samples and an onsite mobile analytical laboratory to provide laboratory analyses of the soil gas samples.

#### 3.3.1 Collection of Soil Gas Samples

After first coring through the concrete slab, a disposable soil gas sampling probe with teflon tubing leading to the surface was advanced to approximately 5 feet below grade. Sand was then placed around the probe from approximately 4 to 5 feet below grade. Granular bentonite was then placed in the remainder of the boring to the surface. The bentonite was then hydrated to provide a seal between the surface and subsurface soils.

A waiting period of approximately 30 minutes was given to allow time for formational equilibrium. The soil gas sample system was then purged of approximately three times the volume of soil gas sample train prior to sample collection. Soil gas samples were then collected in a glass syringe for direct injection and analysis using TEG's California DHS certified mobile laboratory.

In order to assess possible purge volume effects, TEG analyzed samples from SG-1 at varying sample train volumes of 1 volume, 3 volumes, and 7 sample train volumes. Also, during sampling, a shroud containing an atmosphere of concentrated isopropyl alcohol (IPA) was placed over the soil gas sample location and a concentrated IPA atmosphere was maintained over all fittings and connection points during sampling. Additionally, a syringe blank and sample from the shroud atmosphere were collected for analysis.

#### 3.3.2 Laboratory Analysis of Soil Gas Samples

Soil gas samples were analyzed onsite using TEG's DHS certified mobile laboratory. Soil gas samples were analyzed for the following parameters.

- USEPA 8260B Total Petroleum Hydrocarbons as Gasoline (TPH-G)
- USEPA 8260B Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)
- USEPA 8260B Oxygenates (TAME, TBA, DIPE, ETBE, and MTBE)

All analyses were conducted by TEG, a California-certified laboratory, with lab results provided in approximately one hour after sampling.

## 4.0 RESULTS OF SOIL GAS SAMPLING

Soil gas analytical results from the from the four soil gas locations are summarized in Table 1 and on Figure 3. The laboratory data report and chain of custody record are contained in Appendix B. Soil gas TPH-G concentrations in the four samples ranged from 16,000 micrograms per cubic meter ( $\text{ug}/\text{m}^3$ ) in SG-4 to 1,400,000  $\text{ug}/\text{m}^3$  in SG-1. Benzene soil gas concentrations in the four samples ranged from 85  $\text{ug}/\text{m}^3$  in SG-2 to 810  $\text{ug}/\text{m}^3$  in SG-1. Concentrations of other BTEX constituents and Oxygenates were relatively low.

Two duplicate soil gas samples collected at SG-2 showed 16,000 ug/m<sup>3</sup> and 14,000 ug/m<sup>3</sup> of the leak check compound Isopropyl Alcohol (IPA) (laboratory reporting limit of 10,000 ug/m<sup>3</sup>). However, these IPA concentrations are 0.06 percent (%) and 0.10 % of the calculated shroud IPA concentrations, as specified in the TEG lab report. These IPA detections are very low as compared to shroud IPA concentrations and do not indicate a significant leak<sup>1</sup>

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

Four soil gas samples, SG-1 through SG-4, were collected and analyzed in the former UST area. Soil gas sampling activities were conducted in accordance with the approved workplan and with applicable guidelines and statutes. In addition, leak detection monitoring results indicate that leaks in the sample train were insignificant.

Soil gas sampling results indicate a possible risk relative to indoor air exposure in the former detail shop, which directly overlies the former Site UST excavation cavity. Soil gas hydrocarbon concentrations were highest in sample SG-1, collected in the former Site UST excavation cavity area. TPH-G and Benzene concentrations in the SG-1 sample were 1,400,000 micrograms per cubic meter (ug/m<sup>3</sup>) and 810 ug/m<sup>3</sup>, respectively. These TPH-G and Benzene concentrations are significantly higher than their respective residential land use environmental screening levels (ESLs)<sup>2</sup> of 10,000 ug/m<sup>3</sup> and 84 ug/m<sup>3</sup>, and are also elevated relative to the respective commercial land use TPH-G and Benzene ESLs of 29,000 ug/m<sup>3</sup> and 290 ug/m<sup>3</sup>. The soil gas TPH-G concentration in SG-2, also located within the former UST excavation cavity, was also elevated relative to both residential and commercial land use ESLs; however, the Benzene concentration at SG-2 was at or below both residential and commercial land use ESLs.

Soil gas hydrocarbon concentrations at sample locations SG-3 and SG-4, located downgradient from the former UST cavity within the adjoining main vehicle maintenance building, exceeded residential land use ESLs, but did not exceed commercial land use ESLs. Thus, these sampling results do not indicate significant risk relative to occupational (commercial land use) indoor air exposure.

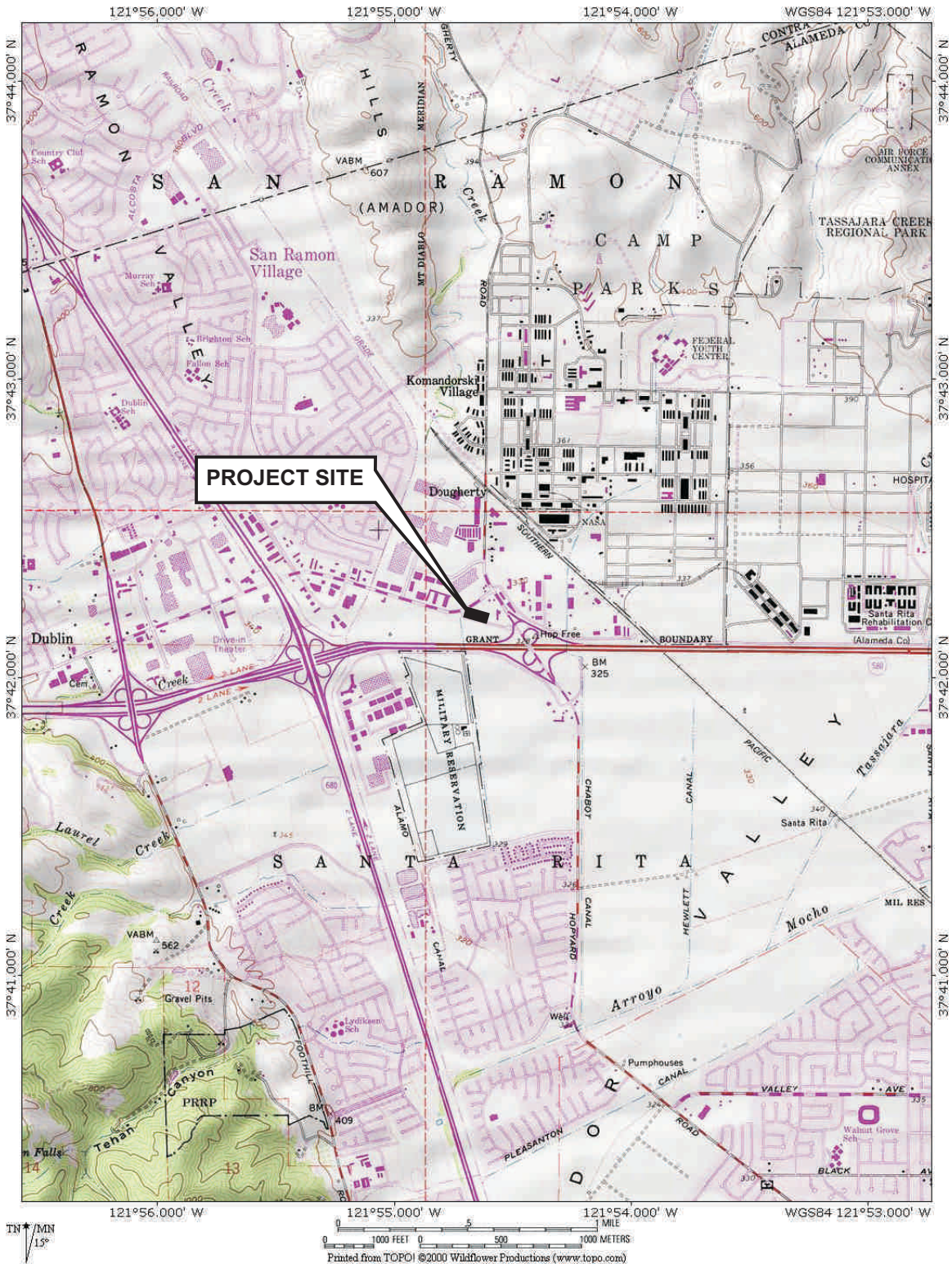
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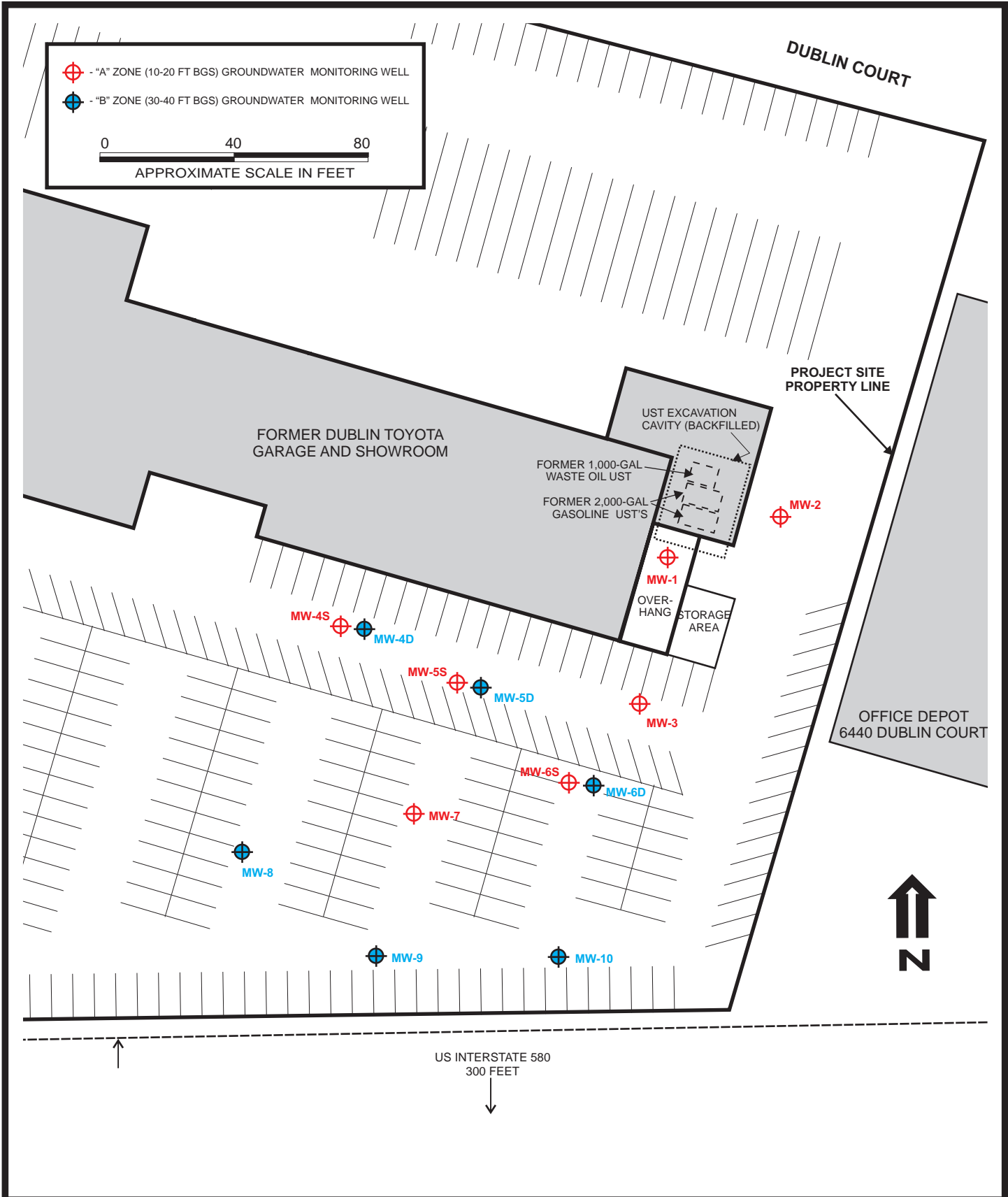
<sup>1</sup>See *Detailed Field Investigation of Vapor Intrusion Processes (ESTCP Project ER-0423*, prepared for the Environmental Security Technology Certification Program by GSI Environmental, Inc., September 2008 ([www.estcp.org/Technology/ER-0423-VFS.cfm](http://www.estcp.org/Technology/ER-0423-VFS.cfm)), page 74.

<sup>2</sup>Environmental Screening Levels, Indoor Air and Soil Gas, Vapor Intrusion Concerns, Table E, as contained in *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, San Francisco Bay Regional Water Quality Control Board, Interim Final, May 2008

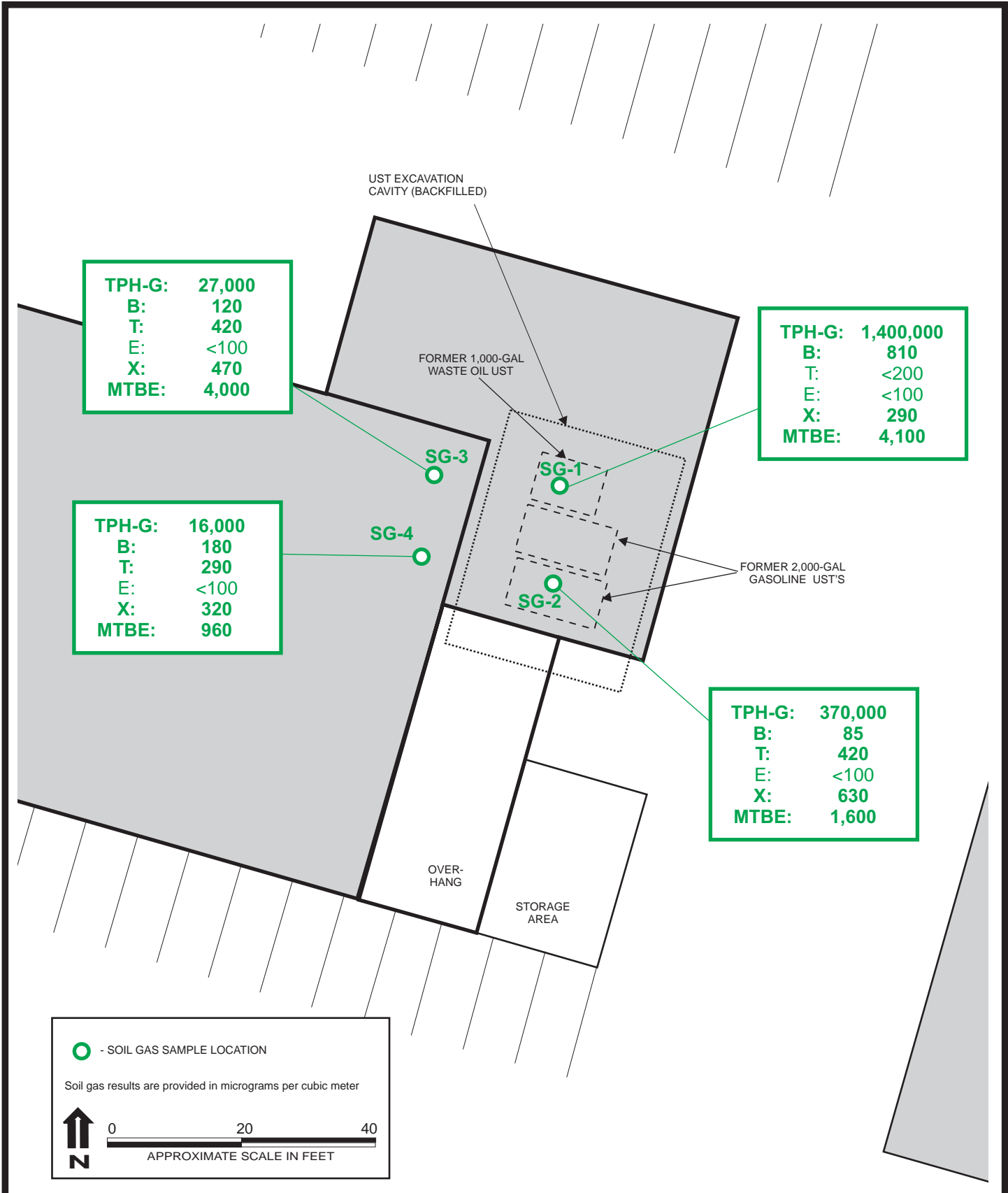
## **FIGURES**



DESIGNED BY:	CHECKED BY:	<b>SITE VICINITY MAP</b>  DUBLIN TOYOTA UST SITE 6450 DUBLIN COURT DUBLIN, CALIFORNIA	DATE: 08/04/2010	FIGURE: 1
DRAWN BY: MAR	SCALE:			
PROJECT NO:				



DESIGNED BY:	CHECKED BY:	<b>SITE PLAN</b>  DUBLIN TOYOTA UST SITE 6450 DUBLIN COURT DUBLIN, CALIFORNIA	DATE: 08/04/2010	FIGURE: 2
DRAWN BY: MAR	SCALE:			
PROJECT NO:				



DESIGNED BY:	CHECKED BY:	<b>RESULTS OF SHALLOW SOIL GAS SAMPLING</b>  DUBLIN TOYOTA UST SITE 6450 DUBLIN COURT DUBLIN, CALIFORNIA	DATE: 08/04/2010	FIGURE: 3
DRAWN BY: MAR	SCALE:			
PROJECT NO:				



## **TABLE**

**Table 1**  
**SUMMARY OF SOIL GAS LABORATORY ANALYTICAL RESULTS**  
Dublin Toyota UST Site

Sample ID	Sample Depth	Purge Volume	Vapor Concentration: micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )							
			TPH-G	B	T	E	X	MTBE	OXY	IPA
SG-1	4-5 feet	1	1,300,000	780	300	<100	510	4,100	<100	<10,000
SG-1	4-5 feet	3	1,400,000	810	<200	<100	290	4,100	<100	<10,000
SG-1	4-5 feet	7	1,300,000	790	<200	<100	<200	4,100	<100	<10,000
SG-2	4-5 feet	3	370,000	85	420	<100	630	1,600	<100	16,000
SG-2 Dup	4-5 feet	3	40,000	<80	340	<100	560	1,600	<100	14,000
SG-3	4-5 feet	3	27,000	120	420	<100	470	3,900	<100	<10,000
SG-4	4-5 feet	3	16,000	180	290	<100	320	960	<100	<10,000
Shallow Soil Gas ESL, Residential Land Use			10,000	84	63,000	980	21,000	9,400	Various	--
Shallow Soil Gas ESL, Commercial Land Use			29,000	280	180,000	3,300	58,000	31,000	Various	--

Table Notes:

Sample Depth = Vapor probe screened interval, in feet below ground surface.

Purge Volume = Number of sample train purge volumes

TPH-G = total petroleum hydrocarbons as gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tert-butyl ether

OXY = Oxygenates (besides MTBE), includes TBA, DIPE, ETBE, and TAME)

IPA = IsopropylAlcohol, used as a leak detection compound.

<100 Not detected above the expressed value.

ESL = Environmental Screening Levels, as contained in Table E of , *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*, San Francisco Bay Regional Water Quality Control Board, Interim Final, May 2008.

**APPENDIX A**  
**DRILLING PERMIT**



# ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 454-5728

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT  
6450 DUBLIN COURT, DUBLIN, CALIFORNIA 94568

California Coordinates Source \_\_\_\_\_ ft Accuracy \_\_\_\_\_ ft  
CCN \_\_\_\_\_ ft CCE \_\_\_\_\_ ft  
APN \_\_\_\_\_

CLIENT  
Name DUBLIN TOYOTA  
Address 4321 TOYOTA DRIVE Phone 925-241-7335  
City DUBLIN, CALIFORNIA Zip 94568

APPLICANT  
Name GRIBI ASSOCIATES  
Address 1090 ADAMS STREET, #K Phone 707-748-7743  
City BENICIA, CALIFORNIA Zip 94510

TYPE OF PROJECT  
Well Construction  Geotechnical Investigation  
Cathodic Protection  General   
Water Supply  Contamination   
Monitoring  Well Destruction

PROPOSED WELL USE  
New Domestic  Irrigation   
Municipal  Remediation   
Industrial  Groundwater Monitoring   
Dewatering  Other \_\_\_\_\_

DRILLING METHOD  
Mud Rotary  Air Rotary  Hollow Stem Auger   
Cable Tool  Direct Push  Other \_\_\_\_\_

DRILLING COMPANY TEG  
DRILLER'S LICENSE NO 706568

WELL PROJECTS  
Drill Hole Diameter \_\_\_\_\_ in Maximum  
Casing Diameter \_\_\_\_\_ in Depth \_\_\_\_\_ ft  
Surface Seal Depth 28.0 ft Number \_\_\_\_\_

SOIL BORINGS  
Number of Borings 4 Maximum  
Hole Diameter 1.5 in Depth 5 ft

ESTIMATED STARTING DATE JULY 14, 2010  
ESTIMATED COMPLETION DATE JULY 14, 2010

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No 73-68

APPLICANT'S SIGNATURE [Signature] Date 7/09/2010

PERMIT NUMBER 2010064  
WELL NUMBER \_\_\_\_\_  
APN 941-1400-007-00

### PERMIT CONDITIONS

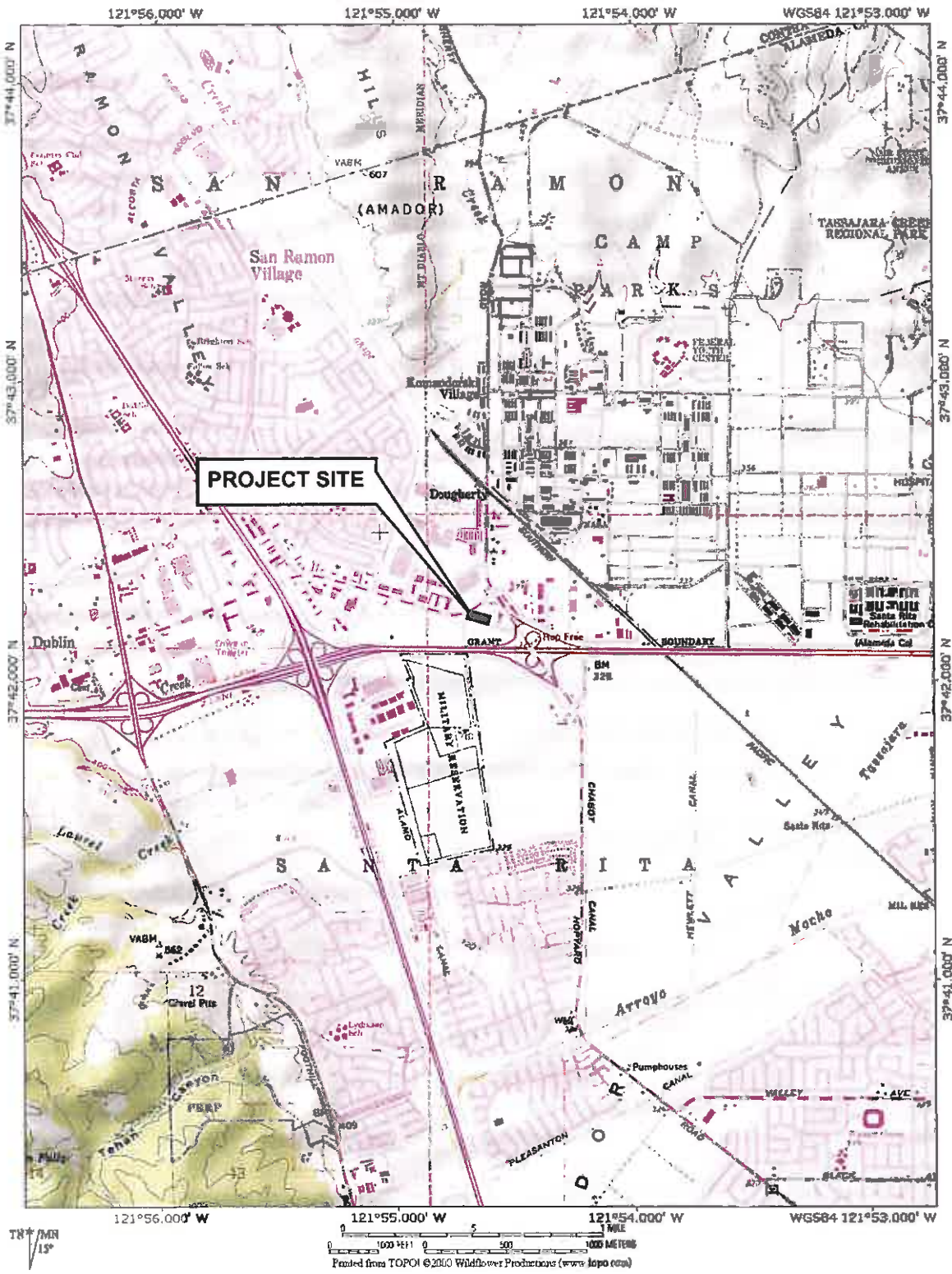
(Circled Permit Requirements Apply)

- A. GENERAL
  1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date
  2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects or drilling logs and location sketch for geotechnical projects
  3. Permit is void if project not begun within 90 days of approval date.
- B. WATER SUPPLY WELLS
  1. Minimum surface seal thickness is two inches of cement grout placed by tremie
  2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
  3. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements
  4. A sample port is required on the discharge pipe near the wellhead.
- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
  1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
  2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet
- D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings
- E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.
- F. WELL DESTRUCTION See attached.
- G. SPECIAL CONDITIONS Submit to Zone 7 within 60 days after the completion of permitted work the well installation report including all soil and water laboratory analysis results



Approved [Signature] Date 7/12/10  
Wyman Hong

ATTACH SITE PLAN OR SKETCH

Revised April 27, 2005



DESIGNED BY:	CHECKED BY:	<b>SITE VICINITY MAP</b>  DUBLIN TOYOTA UST SITE 6450 DUBLIN COURT DUBLIN, CALIFORNIA	DATE: 01/05/2010	FIGURE: 1
DRAWN BY: MAR	SCALE:			
PROJECT NO:				

 - "A" ZONE (10-20 FT BGS) GROUNDWATER MONITORING WELL  
 - "B" ZONE (30-40 FT BGS) GROUNDWATER MONITORING WELL

0                      40                      80  
 ───────────────────┬──────────────────┬──────────────────  
 APPROXIMATE SCALE IN FEET

DUBLIN COURT

PROJECT SITE PROPERTY LINE

FORMER DUBLIN TOYOTA GARAGE AND SHOWROOM

UST EXCAVATION CAVITY (BACKFILLED)

FORMER 1,000-GAL WASTE OIL UST  
 FORMER 2,000-GAL GASOLINE UST'S

OVER-HANG STORAGE AREA

OFFICE DEPOT 6440 DUBLIN COURT

MW-4S

MW-4D

MW-5S

MW-5D

MW-3

MW-6S

MW-6D

MW-7

MW-8

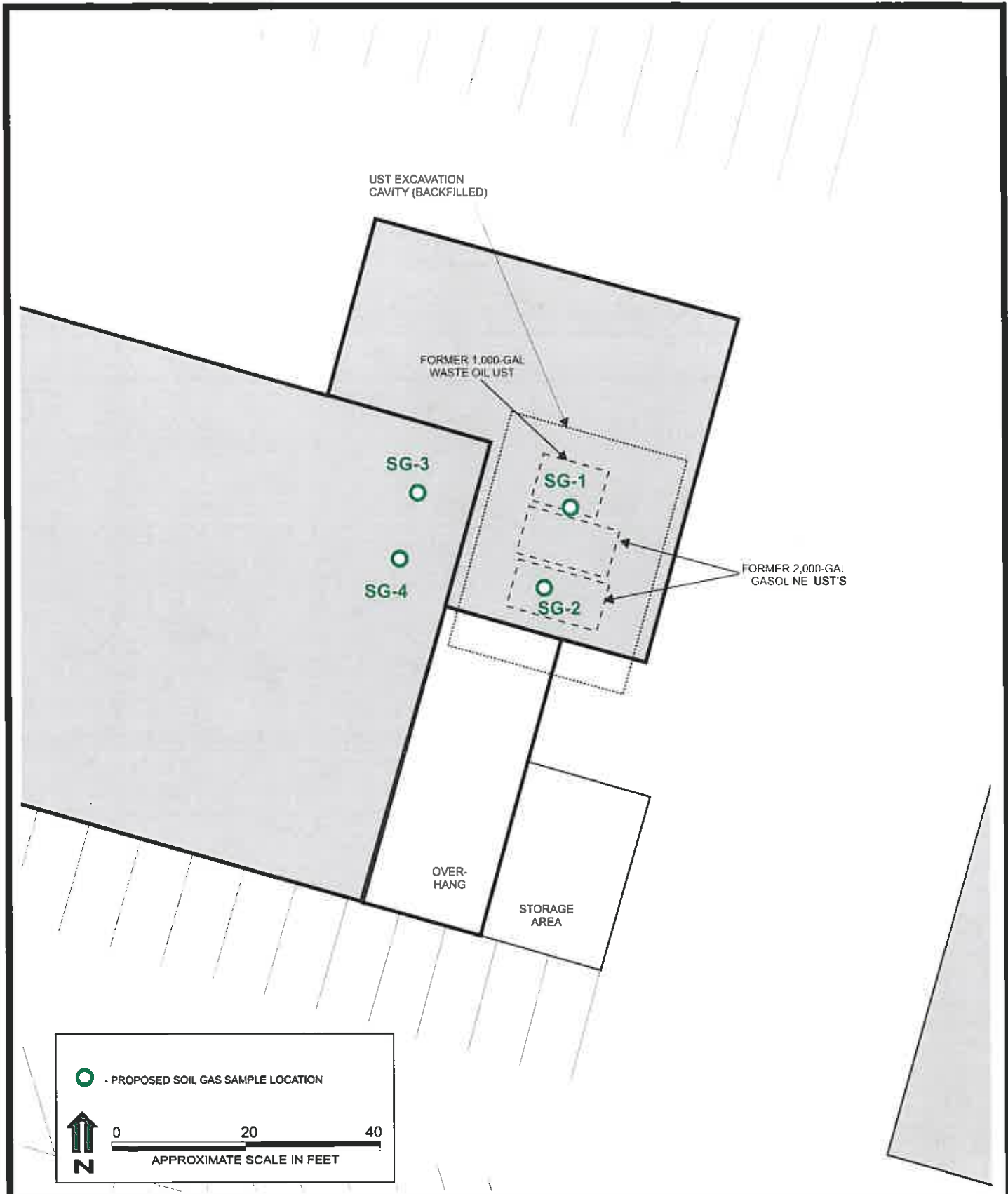
MW-9

MW-10



US INTERSTATE 580  
300 FEET

DESIGNED BY:	CHECKED BY:	<b>SITE PLAN</b>  DUBLIN TOYOTA UST SITE 6450 DUBLIN COURT DUBLIN, CALIFORNIA	DATE: 01/05/2010	FIGURE: 2
DRAWN BY: MAR	SCALE:			
PROJECT NO:				



DESIGNED BY:	CHECKED BY:	<b>PROPOSED SOIL GAS SAMPLE LOCATIONS</b>  DUBLIN TOYOTA UST SITE 6450 DUBLIN COURT DUBLIN, CALIFORNIA	DATE: 01/05/2010	FIGURE: 5
DRAWN BY: MAR	SCALE:			
PROJECT NO:				

**APPENDIX B**

**TEG LABORATORY DATA REPORT**





28 July 2010

Mr. Jim Gribi  
Gribi Associates  
1090 Adams Street, Suite K  
Benicia, CA 94510

**SUBJECT: DATA REPORT - Gribi Associates Project: Dublin Toyota  
6450 Dublin Court, Dublin, California**

**TEG Project # 00714F**

Mr. Gribi:

Please find enclosed a data report for the samples analyzed from the above referenced project for Gribi Associates. The samples were analyzed on site in TEG's mobile laboratory. TEG conducted a total of 7 analyses on 7 soil vapor samples.

-- 7 analyses on soil vapors for aromatic volatile hydrocarbons (BTEX), fuel oxygenates, and total petroleum hydrocarbons-gasoline by EPA method 8260B.

The results of the analyses are summarized in the enclosed tables. Applicable detection limits and calibration data are included in the tables.

TEG appreciates the opportunity to have provided analytical services to Gribi Associates on this project. If you have any further questions relating to these data or report, please do not hesitate to contact us.

Sincerely,

Mark Jerpbak  
Director, TEG-Northern California



GRIBI Associates Project: Dublin Toyota  
6450 Dublin Court, Dublin, California

TEG Project #00714F

Analyses of SOIL VAPOR in micrograms per cubic meter of Vapor  
BTEX, Oxygenates, & TPH-gasoline (EPA method 8260B)

SAMPLE NUMBER:		Syringe Blank	SG-1	SG-1	SG-1	SG-2
SAMPLE DEPTH (feet):			5.0	5.0	5.0	5.0
PURGE VOLUME:			1	3	7	3
COLLECTION DATE:		7/14/10	7/14/10	7/14/10	7/14/10	7/14/10
COLLECTION TIME:		10:23	11:17	11:54	12:20	12:56
DILUTION FACTOR (VOCs):		1	1	1	1	1
	RL					
<b>Benzene</b>	80	nd	780	810	790	85
<b>Toluene</b>	200	nd	300	nd	nd	420
Ethylbenzene	100	nd	nd	nd	nd	nd
<b>m,p-Xylene</b>	200	nd	390	290	nd	480
<b>o-Xylene</b>	100	nd	120	nd	nd	150
tert-Butanol (TBA)	100	nd	nd	nd	nd	nd
<b>Methyl-t-butyl ether (MtBE)</b>	100	nd	4100	4100	4100	1600
Diisopropyl ether (DIPE)	100	nd	nd	nd	nd	nd
Ethyl-t-butyl ether (EtBE)	100	nd	nd	nd	nd	nd
Tert-amyl methyl ether (TAME)	100	nd	nd	nd	nd	nd
<b>TPH (gasoline range)</b>	10000	nd	1300000	1400000	1300000	370000
Isopropyl Alcohol (leak check)	10000	nd	nd	nd	nd	16000
Surrogate Recovery (DBFM)		92%	86%	79%	86%	82%
Surrogate Recovery (1,4-BFB)		100%	102%	102%	102%	102%

'RL' Indicates reporting limit at a dilution factor of 1  
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab  
Analyses performed by: Mr. Leif Jonsson

page 1



GRIBI Associates Project: Dublin Toyota  
6450 Dublin Court, Dublin, California

TEG Project #00714F

Analyses of SOIL VAPOR in micrograms per cubic meter of Vapor  
BTEX, Oxygenates, & TPH-gasoline (EPA method 8260B)

SAMPLE NUMBER:		SG-2	SG-3	SG-4
		dup		
SAMPLE DEPTH (feet):		5.0	5.0	5.0
PURGE VOLUME:		3	3	3
COLLECTION DATE:		7/14/10	7/14/10	7/14/10
COLLECTION TIME:		13:21	13:49	14:20
DILUTION FACTOR (VOCs):		1	1	1
	RL			
<b>Benzene</b>	80	nd	120	180
<b>Toluene</b>	200	340	420	290
Ethylbenzene	100	nd	nd	nd
<b>m,p-Xylene</b>	200	440	360	320
<b>o-Xylene</b>	100	120	110	nd
tert-Butanol (TBA)	100	nd	nd	nd
<b>Methyl-t-butyl ether (MtBE)</b>	100	1600	3900	960
Diisopropyl ether (DIPE)	100	nd	nd	nd
Ethyl-t-butyl ether (EtBE)	100	nd	nd	nd
Tert-amyl methyl ether (TAME)	100	nd	nd	nd
<b>TPH (gasoline range)</b>	10000	40000	27000	16000
Isopropyl Alcohol (leak check)	10000	14000	nd	nd
Surrogate Recovery (DBFM)		80%	86%	84%
Surrogate Recovery (1,4-BFB)		102%	105%	103%

'RL' Indicates reporting limit at a dilution factor of 1  
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab  
Analyses performed by: Mr. Leif Jonsson

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GRIBI Associates Project: Dublin Toyota  
6450 Dublin Court, Dublin, California

TEG Project #00714F

CALIBRATION STANDARDS - Initial Calibration / LCS

Instrument: Agilent 5973N MSD

COMPOUND	INITIAL CALIBRATION		LCS	
	RF	%RSD	RF	%DIFF
Benzene	1.177	4.9%	1.221	3.7%
Toluene	0.689	4.0%	0.744	8.0%
Ethylbenzene	0.582	7.9%	0.593	1.9%
m,p-Xylene	0.712	7.1%	0.749	5.2%
o-Xylene	0.673	13.4%	0.728	8.2%
tert-Butanol (TBA)*	0.020	12.5%	0.017	15.0%
Methyl-t-butyl ether (MtBE)	0.671	3.0%	0.670	0.1%
Diisopropyl ether (DIPE)	1.001	4.2%	1.127	12.6%
Ethyl-t-butyl ether (EtBE)	0.799	2.5%	0.845	5.8%
Tert-amyl methyl ether (TAME)	0.686	4.1%	0.700	2.0%
TPH-Gasoline	1.129	11.7%	1.205	6.7%
Acceptable Limits		20.0%		15.0%

\*\*\* Indicates RSD not to exceed 30% & LCS not to exceed 25%



GRIBI Associates Project: Dublin Toyota  
6450 Dublin Court, Dublin, California

TEG Project #00714F

### Leak Check Values

Sample Number	Analyzed Value Under Shroud (ug/m3)	PID Reading Under Shroud	Calculated Value Under Shroud (ug/m3)	Leak Check in Sample (ug/m3)	% Difference
Shroud	5.6E+07	312			
Sample					
SG-1	PV 1	80	1.4E+07	nd	0.00%
SG-1	PV3	110	2.0E+07	nd	0.00%
SG-1	PV7	80	1.4E+07	nd	0.00%
SG-2		150	2.7E+07	16000	0.06%
SG-2	dup	80	1.4E+07	14000	0.10%
SG-3		120	2.2E+07	nd	0.00%
SG-4		70	1.3E+07	nd	0.00%

Leak Check Compound = Isopropyl Alcohol (IPA) / RL=10000

% Difference Acceptable Limit = 5.0%