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May 5, 2006

Mr. Barney Chan Hazardous Materials Specialist Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

SUBJECT: SUMMARY OF SITE ENVIRONMENTAL CONDITION, SEARCH FOR UNDERGROUND STORAGE TANKS (USTs), CONCLUSIONS AND RECOMMENDATIONS

SITE: COMMERCIAL RETAIL CENTER 925-949 WEST GRAND AVENUE OAKLAND, CALIFORNIA

Dear Mr. Chan:

On behalf of Mr. Chong Kim, Golden Gate Tank Removal, Inc./ The Environmental Division is pleased to submit the attached report summarizing the site environmental condition, presenting the search results for underground storage tanks (USTs), and offering its conclusions and recommendations. The subject property is a commercial retail center, comprising the addresses 925–949 West Grand Avenue in Oakland, California.

Thank you for your cooperation. If you have any questions, please contact the undersigned at (415) 512-1555.

Sincerely, Golden Gate Tank Re 60888 Sami Malaeb, P.E Environmental Difector

cc: Mr. Don Kim, 1580 Taraval Street, San Francisco, California 94116 Mr. Chong Kim, 2601 Telegraph Avenue, Oakland, California 94612



REPORT ON THE SEARCH FOR UNDERGROUND STORAGE TANKS AND ENVIRONMENTAL SITE CONDITION

AT

THE COMMERCIAL RETAIL CENTER LOCATED AT 925-949 WEST GRAND AVENUE OAKLAND, CALIFORNIA

PREPARED FOR

MR. CHONG KIM AND ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY ENVIRONMENTAL HEALTH SERVICES

> BY GOLDEN GATE TANK REMOVAL, INC./ THE ENVIRONMENTAL DIVISION

> > MAY 5, 2006

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- A UTILITY LOCATION MAP
- B GEOPHYSICAL SURVEY REPORT

1.0 INTRODUCTION

On behalf of Mr. Chong Kim, Golden Gate Tank Removal, Inc./ The Environmental Division conducted a search for underground storage tanks (USTs) at the commercial retail center, located at 925-949 West Grand Avenue, Oakland, California. This report presents a summary of the site environmental condition, the results of the UST search, conclusions and recommendations.

2.0 SITE DESCRIPTION

The subject site consists of a commercial retail lot bound by West Grand Avenue on the north, Myrtle Street to the west, 21st Street to the south, and Market Street to the east. Figure 1 depicts the location of the site on a topographic map. Figure 2 is a site and vicinity map. A single story commercial building with multiple units, 925-949 West Grand Avenue, exists onsite. Grand Foods, a retail grocery store, occupies unit 925. AJ Grooming Hair Salon occupies unit 935. The other units are presently vacant. Past use of the site included a dry cleaning outlet in unit 941, auto and truck storage, oil storage, and other uses involving the handling and storage of paints, solvents, and other chemicals.

The subject site is located in a mixed commercial and residential area of Oakland. To the northeast and at 905 West Grand Avenue are a vacant lot and a building formerly occupied by an auto detailing and transportation company. To the north and across the street from West Grand Avenue, are a retail tire shop and a commercial building. To the east, beyond Market Street is a body shop and gasoline station. To the west and across the street from Myrtle Street are a food distribution company and residential houses. To the south and across the street from 21st Street residences occupy the area. Figure 2 depicts the site vicinity.

3.0 SITE GEOLOGY AND HYDROGEOLOGY

The site elevation is approximately 15 feet above mean sea level (msl) with a topographic slope towards the west to southwest. Sediments encountered in the borings drilled onsite generally consisted of silty clay or clayey silt of very low permeability from the ground surface to approximately 12 feet below surface grade (bsg). A more Permeable gravely sand or sandy gravel was encountered from 12 feet bsg to the total depth explored of 20 feet bgs. Groundwater was first encountered in the borings at approximately 12 feet bsg and stabilized in the monitoring wells between 8 and 11 feet bsg.

The nearest surface water is the Oakland Outer Harbor, located approximately 1.5 miles west to northwest of the site. The groundwater flow direction based on the local topography and three monitoring wells drilled onsite is to the southwest.

The subject site is located within the East Bay Plain Groundwater Basin. This groundwater is classified as a significant drinking water resource. However, further de-designation of the groundwater in the area of the site is possible based on several factors, such as low yield, brackish quality, or other surface contaminants and considerations.

4.0 ENVIRONMENTAL BACKGROUND

June 2000 –Phase I Environmental Site Assessment: In June 2000, Aqua Science Engineering, Inc. (AEI) of Danville, California completed a Phase I Environmental Site Assessment at the subject site. Among the findings of the assessment are the followings:

• A dry cleaner operated in unit 941 at the site for approximately 10 years and was issued a violation for improper disposal of waste in 1986.

- Auto and truck storage, auto repair, oil and paint operations were conducted at the site.
- The Phase I report noted that at 905 West Grand Avenue, adjacent and to the northeast of the site, three USTs had operated and were subsequently removed. A fuel leak release was reported from the 905 West Grand Avenue site. Although case closure has been granted by the Alameda County Health Services Agency (ACHSA) for this adjacent site, AEI suggested that the fuel release at this adjacent site had impacted the subject site based on the proximity of the adjacent site to the subject site and the groundwater flow direction.
- AEI recommended a soil and groundwater assessment for the subject site and a magnetometer survey to locate any potential USTs that may have existed onsite.

March 2002, Phase II Subsurface Investigation: In March 2002, AEI drilled five soil borings at the subject site. Three borings were drilled in the suspect locations of previous gas and oil storage areas (SB-1 through SB-3), and two borings were drilled in the former dry cleaning area (SB-4 and SB-5, Figure 2).

No significant petroleum hydrocarbon concentrations were detected in soil samples collected in the areas of suspected gas and oil storage. Groundwater samples collected from these borings contained a maximum of 460 parts per billion (ppb) of total petroleum hydrocarbons as gasoline (TPH-G) and 380 ppb total petroleum hydrocarbons as diesel (TPH-D). No benzene, toluene, or Methyl tertiary butyl ether (MTBE) was detected. Ethylbenzene and Xylenes were non-detected to non-significant (Figure 3).

The soil samples collected from the borings drilled in the former dry cleaning area contained nonsignificant concentrations of petroleum hydrocarbons and chlorinated solvents (Table 1). However, the groundwater samples collected from the same borings (SB-4 and SB-5) in the former dry cleaning area contained significant concentrations of petroleum hydrocarbons and chlorinated solvents. Groundwater collected from these borings contained a maximum of 140,000 ppb TPH-G, 810 ppb benzene, 550 ppb cis-1,2-dichloroethene, and 60 ppb vinyl chloride.

September 2002, Limited Groundwater Investigation: In September 2002, Eras Environmental Inc., (ERAS) drilled three borings and collected three groundwater samples (GW-1, GW-2, and GW-3). These samples were collected from the areas bordering the subject site with the adjacent former gasoline station located at 905 West Grand Avenue. The purpose of collecting these groundwater samples was to assess whether the fuel release at the adjacent site, located at 905 West Grand Avenue, has impacted the subject site. The analytical results from these samples are depicted in Figure 3 and tabulated in Table 4. All three groundwater samples, GW-1, GW-2, and GW-3 showed non-significant to non-detected concentrations of TPH-G, BTEX, and MTBE. Therefore, ERAS concluded that the former USTs at 905 West Grand Avenue do not appear to be the source of petroleum hydrocarbon contamination of the groundwater under unit 941 at he subject site.

May 2003, Soil and Groundwater Investigation: In order to assess the subsurface condition in the surrounding area of the former dry cleaner, in May 2003, ERAS drilled five soil borings (A through E) at the site (Figure 2). Borings A through D were located in the presumed downgradient of the dry cleaner. Boring E was located between the dry cleaner and the former gasoline station at 905 West Grand Avenue. The soil samples contained non-significant to non-detected concentrations of petroleum hydrocarbons and chlorinated solvents. Groundwater samples collected from boring E contained 4,300 ppb TPH-G. Groundwater in boring A contained 100 ppb TPH-G. No TPH-G was detected in groundwater samples collected from the remaining borings. Groundwater samples collected from borings A through D also contained up to 35 ppb MTBE, 1.6 ppb Trichloroethene (TCE), 5.0 ppb 1,2-DCE, and 1.6 ppb vinyl chloride.

August 2004, Soil and Groundwater Investigation: to further assess the extent of the soil and groundwater impact with petroleum hydrocarbons and solvents, in August 2004, ASE drilled soil borings SB-F, SB-G, and SB-H and installed three monitoring wells, MW-1 through MW-3 (Figure 2). The only soil that contained concentrations of any of the analyzed compounds was from the sample collected during drilling monitoring well MW-2 at 9.5 feet bgs. This sample contained 1,000 ppm TPH-G, 430 ppm TPH-D, and 0.71 ppm benzene. However, since groundwater fluctuated in this well between 8 and 9.8 feet, the soil results may not be representative of the actual soil condition and may represent a condition of wet soil and groundwater. Groundwater appeared to flow to the southwest at a gradient of 0.0043 ft/ft.

March 2005, Area Conduit Study and Review of Sanborn Maps: In March 2005, ASE conducted a conduit study. A Figure showing the subsurface utilities in the vicinity of the subject site is included in Attachment A. These utility lines are considered potential conduits for the preferential movement of groundwater in the vicinity of the subject site. Also in March 2005, ASE conducted a Sanborn Map review. The review did not reveal any underground storage tank near or on Unit 941 at the subject site, where the highest concentrations of petroleum hydrocarbons and solvents were encountered.

April 2005, Additional Soil and Groundwater Assessment: In April 2005, Aqua Science Engineers drilled borings SB-I through SB-Q. There was evidence of elevated hydrocarbons in soil only at the capillary zone in these borings (Table 2). Significant groundwater concentrations of petroleum hydrocarbons were detected in the upgradient area and near Unit 941 onsite (Table 3 and Figures 3 and 4). This suggested possible source of release near or under Unit 941 or possible migration of petroleum hydrocarbons from an upgradient source.

To summarize, the Phase I Environmental Assessment and the subsequent subsurface investigations conducted at the subject site did not reveal the existence of underground storage tanks onsite. However, these investigations revealed significant impact to groundwater with petroleum hydrocarbons and chlorinated solvents near and at Unit 941. Soil was only impacted at the capillary fringe, which may suggest migration of contaminants from offsite sources. These offsite sources may include former USTs at 905 West Grand Avenue, 914 West Grand Avenue, and other nearby sources. Another possibility is the existence of a subsurface source of release of petroleum hydrocarbons/ and or chlorinated solvents at or near Unit 941 (former dry cleaner facility).

To investigate the existence of any UST near and at Unit 941 at the subject site, Golden Gate Tank Removal, Inc. was contracted to conduct a search for USTs at the suspect areas of the subject site. The section below details the UST search efforts:

5.0 SEARCH FOR UNDERGROUND STORAGE TANKS (USTs)

Golden Gate Tank Removal, Inc. searched for underground storage tanks at the subject site by conducting a magnetometer search, a ground penetrating radar (GPR) survey, and by excavating and probing the suspect area inside Unit 941.

February 2006, Magnetometer Survey: In February 2006, Golden Gate Tank Removal, Inc. field technician conducted a magnetic survey at Unit 941 and adjacent areas within approximately 20 foot radius. Also, the suspect area of gas and oil storage and the loading dock area were surveyed by a magnetometer. No sign or indication of USTs was revealed.

March 2006, Geophysical Survey: On March 10, 2006, Mr. David Bissiri of Norcal Geophysical Consultants, Inc. conducted a geophysical survey at the site. Using combination of ground penetrating radar (GPR) and hand held metal-detection (MD) methods, Mr. Bissiri investigated

accessible portions of the interior floor and exterior sidewalks of the former dry cleaner (Unit 941). The reason for the survey was to determine if there is evidence of large buried objects suggestive of USTs or their associated piping. Based on the interpretation of the GPR data and the responses of the metal-detector, Norcal identified one circular anomalous zone located in the northwest corner of unit 941 in sub-area A (please see Attachment B and the associated field map). This anomaly appeared to be approximately 3-feet in diameter and is depicted on the field map as the shaded circle labeled "Anomalous GPR Zone (primary)". While the size and shape of this anomaly is somewhat suggestive of a vertical UST, the follow-up portion of the investigation for this anomaly using the hand held metal detector was inconclusive.

A secondary anomalous GPR zone was also detected in the same general area. This secondary anomaly appeared to be rectangular in shape and extended southward from the circular anomaly for a distance of approximately 15 feet (See field map in Attachment B). Based on its weaker GPR reflections and narrow rectangular shape, this secondary anomaly is interpreted as possibly being due to a zone of differing sub-grade material than surrounding areas.

March 2006, Excavation and probing for UST Search: In the week of March 20th 2006, Golden Gate Tank Removal, Inc. excavated the circular and rectangular areas delineated by the Norcal geophysical survey inside Unit 941 (former dry cleaner) at the site. The hand-dug excavation was to a depth of approximately 5 feet bsg and was further probed by a metal insert to a depth of 9 feet. No UST was encountered. During the excavation, an Organic Vapor Meter (OVM) was used to monitor the air for any volatile organics. The OVM did not detect any volatile organics in the air. No stain or odor of petroleum hydrocarbons or solvents was noticed during the soil excavation. No groundwater was encountered.

March 2006, Area Reconnaissance: In March 2006 during site vicinity reconnaissance, a UST fill pipe was noticed on the sidewalk, in front of Rel's Food, 955 West Grand Avenue (Figure 2). Subsequently, this fill pipe was opened by Golden Gate Tank Removal, Inc. Technician and lead to the discovery of fuel inside the tank (possibly gasoline UST). In addition, two other USTs reportedly existed at 955 West Grand Avenue site and were subsequently removed.

March 2006, File Review: To assess the petroleum hydrocarbon and solvent sources in the vicinity of the subject site, Golden Gate Tank Removal, Inc. conducted file search at the Alameda County Health Services Agency and the City of Oakland. The search was conducted mainly to obtain information regarding Rel's Food USTs (955 West Grand Avenue Site). No information was available in the searched records regarding the USTs at 955 West Grand Avenue Site.

6.0 <u>CONCLUSIONS</u>

Based on the Phase I Environmental Site assessment and the subsurface investigations conducted at this site, Golden Gate Tank Removal, Inc./ the Environmental Division presents the following conclusions:

- Records reviewed, magnetic and GPR surveys, and excavation onsite did not show evidence of any UST onsite. However, several USTs existed or still exist at the neighboring sites (Figure 2). Recently, a UST was noticed under the sidewalk, in front of Reel's Food (955 West Grand Avenue). The existing and removed USTs at 955 West Grand Avenue, and across the street, behind 902 West Grand Avenue, could be a source of contamination, impacting the subject site.
- The borings drilled onsite to date showed that the soil impacted with petroleum hydrocarbons and chlorinated solvents is at the capillary fringe or in the wet zone. This may suggest offsite source of petroleum hydrocarbons. The soil above the capillary fringe is not significantly impacted.

- The use of unit 941 as a dry cleaner in the past and the reported violation in the mismanagement of waste solvents at this location, suggests an onsite source of chlorinated solvents or a commingled effect of offsite and onsite sources. During the site reconnaissance, a dry cleaner was observed at 2134 22nd street (Figure 2). However, groundwater in boring SB-H (Figure 4), located between the existing dry cleaner and Unit 941 onsite did not detect any chlorinated hydrocarbons. This would suggest that it is unlikely the existing dry cleaner at 2134 22nd street has impacted the subject site.
- Groundwater impact with petroleum hydrocarbons and chlorinated solvents exists at and near the former dry cleaner (unit 941). Significant concentrations of TPH-G, up to 16,000 ppb, and benzene, up to 170 ppb were detected in monitoring well MW-2. MW-2 exists between the subject site and the newly discovered UST, under the sidewalk in front of 955 West Grand Avenue. There is possible impact from this UST or from previous USTs, used at 955 West Grand Avenue to the subject site.
- Figure 5 depicts the approximate extent of the plume where petroleum hydrocarbons/ and or chlorinated solvents exceeded the conservative and final environmental screening levels (ESLs) published by the Bay Area Regional Water Quality Control Board for the protection of groundwater and for a residential setting. As shown in Figure 5, the plume is still undefined to the north, northeast, and to the northwest of the site. Also, the plume is still undefined south of unit 937.

7.0 <u>RECOMMENDATIONS</u>

Based on the conclusions listed in the previous section, GGTR offers the following recommendations:

- To complete assessing the extent of petroleum hydrocarbons and chlorinated solvents by installing and sampling an additional seven monitoring wells (MW-4 through MW-10). Figure 5 depicts the proposed well locations. MW-4 through MW-8 will help define the plume offsite. MW-9 is suggested to be installed in the center of the plume for plume stability monitoring. MW-10 is proposed to complete the plume definition south to southwest of unit 941.
- To complete assessing the vertical extent of the petroleum hydrocarbons and chlorinated solvents at and near unit 941 (former dry cleaner) by advancing cone penetration-testing (CPT) borings and collecting discrete groundwater samples at different depths.
- Once the plume is defined, GGTR recommends completing a sensitive receptor survey and a conceptual site model for the site. A feasibility study for site remediation may be combined with the conceptual site model.
- Should you accept our recommendations for completing the site characterization as outlined above, GGTR would prepare a work plan for your approval.

8.0 LIMITATIONS

This report has been prepared in accordance with generally accepted environmental practices exercised by professional Geologists, Scientists, and Engineers. No warranty, either expressed or implied, is made as to the professional advice presented herein. The findings conclusions, and recommendations contained in this report are based upon information contained in previous reports of corrective action activities performed at the subject property and based upon site conditions, as they existed at the time of the investigation, and are subject to change.

The conclusions presented in this report are professional opinions based solely upon visual observations of the subject property and vicinity, and interpretation of available information as described in this report. The scope of services conducted in execution of this investigation may not be appropriate to satisfy the needs of other users and any use or reuse of this document and any of its information presented herein is at sole risk of said user.

Thank you for the opportunity to provide you with our services. If you have any questions, please call me at (415) 512-1555

Sincerely, Golden Gate Tank Remov

Sami Malaeb, PÉ, REA Environmental Director



TABLES

Well/	Sample	Date			Petrole	um Hydroc	arbons					Vo	latile Orgar	nics		
Boring	Depth	Sampled	TPHg	TPHd	Motor	В	Т	E	Х	MTBE	1,2-DCA	Cis-	Trans-	TCE	PCE	Vinyl
(Sample ID)	(fbg)				Oil							1,2-DCE	1,2-DCE			Chloride
								Concentr	ations in p	barts per m	illion (ppm))				
MW-1	14.0	8/9/2004	<1.0	<1.0	NA	<0.005	< 0.005	< 0.005	< 0.005	< 0.005	<0.005	< 0.005	<0.005	< 0.005	< 0.005	<0.005
MW-2	9.5	8/9/2004	1,000	430	NA	0.73	0.091	15	45	<0.025	<0.025	0.027	<0.025	<0.025	<0.025	<0.025
MW-3	14.5	8/9/2004	<1.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
l		I							l							I
SB-1	8.0	3/7/2002	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA	NA
SB-2	8.0	3/7/2002	<1.0	NA	NA	<0.005	0.01	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA	NA
SB-3	8.0	3/7/2002	<1.0	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.05	NA	NA	NA	NA	NA	NA
SB-4	8.0	3/7/2002	2.5	NA	NA	0.017	0.21	0.12	0.011	<0.05	<0.005	0.048	<0.005	0.0051	0.022	0.012
SB-5	8.0	3/7/2002	NA	NA	NA	NA	NA	NA	NA	NA	<0.005	0.14	<0.005	<0.005	0.0097	0.0099
l		I							l							I
A	11.0-11.5	5/5/2003	10	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
В	11.0-11.5	5/5/2003	<0.05	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
С	11.5-12.0	5/5/2003	<0.05	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
D	11.5-12.0	5/5/2003	<0.05	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
E	10.5-11.0	5/5/2003	0.2	NA	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
		I							l							
SB-F	9.5	8/9/2004	<1.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-G	9.5	8/9/2004	<1.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-H	14.5	8/9/2004	<1.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-I	11.0	4/25/2005	380	74.0	NA	0.097	<0.025	3.4	2	<0.025	<0.025	<0.025	<0.025	<0.08	<0.025	<0.025
SB-J	11.0	4/25/2005	140	26	NA	0.025	<0.025	0.06	0.16	<0.025	<0.025	<0.025	<0.025	<0.20	<0.025	<0.025
SB-K	11.0	4/25/2005	1,300	250	NA	0.82	0.39	26	89	<0.025	<0.2	0.076	<0.025	<0.025	<0.025	<0.025
SB-L	10.5	4/26/2005	10	4.6	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-M	10.5	4/26/2005	<1.0	<1.0	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-N	11.5	4/26/2005	<1.0	1	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-O	14.5	4/26/2005	5.0	3.2	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-P	3.5	4/26/2005	<1.0	<1.0	<10.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SB-Q	2.0	4/26/2005	<1.0	<1.0	<10.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	ESL*		100	100	500	0.044	2.9	3.3	2.3	0.023	0.0045	0.19	0.67	0.26	0.087	0.0067

TABLE 1- Summary of Soil Analytical Data - 925-949 West Grand Avenue, Oakland, California

Notes:

fbg = Depth in feet below grade

TPHg = Total petroleum hydrocarbons as gasoline

BTEX = Benzene, Toluene, Ethylbenzene, Xylenes

<X = Concentration less than laboratory reporting limits

NA = not available or not analyzed for the specific analyte

TPHd = Total petroleum hydrocarbons as diesel

MTBE = Methyl tertiary-butyl ether by EPA Method 8260

ND = not detected above laboratory detection limits

1,2-DCA = 1,2-Dichloroethane

Cis-1,2-DCE = Cis-1,2-Dichloroethene TCE = Trichloroethene Trans-1,2-DCE = Trans-1,2-Dichloroethene PCE = Perchloroethene or Tetrachloroethene

ESL* = Final Environmental Screening Level published by the California Regional Water Quality Control Board, February 2005, for shallow soil <3 m bgs, residential land use, and drinking water zone

WELL ID	Date	TOP OF CASING ELEVATION (MSL)*	DEPTH TO GROUNDWATER IN FT	GROUNDWATER ELEVATION IN FT (ABOVE msl)
MW-1	9/14/2004	15.12	10.79	4.33
	12/15/2004		9.77	5.35
	3/31/2005		8.62	6.5
	6/23/2005		10.17	4.95
MW-2	9/14/2004	14.42	9.76	4.66
	12/15/2004		8.67	5.75
	3/31/2005		7.55	6.87
	6/23/2005		9.06	5.36
MW-3	9/14/2004	15.2	10.11	5.09
	12/15/2004		8.80	6.40
	3/31/2005		7.38	7.82
	6/23/2005		9.25	5.95

TABLE 2: GROUNDWATER ELEVATION DATA, 925-949 West Grand Avenue, Oakland, CA

*MSL = Mean Sea Level

Well/	Date	Petroleum Hydrocarbons						Volatile Organics					
Boring	Sampled	TPHg	TPHd	В	Т	E	Х	MTBE	1,2-DCA	Cis-	Trans-	TCE	Vinyl
(Sample ID)										1,2-DCE	1,2-DCE		Chloride
						Concent	rations in	parts per b	oillion (ppb)				
MW-1	9/14/2004	<50	150	<0.5	<0.5	<0.5	<0.5	0.89	<0.5	<0.5	<0.5	<0.5	<0.5
	12/15/2004	<50	65	<0.5	<0.5	<0.5	<0.5	0.74	<0.5	<0.5	<0.5	<0.5	<0.5
	3/31/2005	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	6/23/2005	<50	250	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	9/14/2004	6,100	<1,000	56	2.6	87	190	15	<1.5	1.5	<1.5	<1.5	<1.5
	12/15/2004	22,000	<6,000	150	6.7	760	1,900	11	<1.5	7.2	<1.5	<1.5	1.5
	3/31/2005	14,000	<4,000	110	4	480	1,100	14	<3.0	<3.0	<3.0	<3.0	<3.0
	6/23/2005	16,000	<6,000	170	4.3	480	1,200	8.6	<3.0	3.9	<3.0	<3.0	<3.0
MW-3	9/14/2004	<50	100	<0.5	<0.5	<0.5	<0.5	5.8	0.77	<0.5	<0.5	<0.5	<0.5
	12/15/2004	<50	67	<0.5	<0.5	<0.5	<0.5	6	0.7	<0.5	<0.5	<0.5	<0.5
	3/31/2005	<50	84	<0.5	<0.5	<0.5	<0.5	2.2	0.6	<0.5	<0.5	<0.5	<0.5
	6/23/2005	<50	210	<0.5	<0.5	<0.5	<0.5	2.4	0.56	<0.5	<0.5	<0.5	<0.5
ES	L*	100	100	100	1	30	20	5.0	0.5	6.0	10	5.0	0.5

TABLE 3- Groundwater Analytical Data from the Monitoring Wells - 925-949 West Grand Avenue, Oakland, California

Notes:

TPHg = Total petroleum hydrocarbons as gasoline TPHd = Total petroleum hydrocarbons as diesel

BTEX = Benzene, Toluene, Ethylbenzene, Xylenes MTBE = Methyl tertiary-butyl ether by EPA Method 8260

<X = Concentration less than laboratory reporting lin ND = not detected above laboratory detection limits

NA = not available or not analyzed for the specific ar 1,2-DCA = 1,2-Dichloroethane

Cis-1,2-DCE = Cis-1,2-Dichloroethene TCE = Trichloroethene Trans-1,2-DCE = Trans-1,2-Dichloroethene

PCE = Perchloroethene or Tetrachloroethene

ESL* = Final Environmental Screening Level published by the California Regional Water Quality Control Board, February 2005, for residential land use, and drinking water zone

Well/	Date		Petroleum Hydrocarbons							Vol	atile Orgnar	nics		
Boring	Sampled	TPHg	TPHd	В	Т	E	Х	MTBE	1,2-DCA	Cis-	Trans-	TCE	PCE	Vinyl
(Sample ID)										1,2-DCE	1,2-DCE			Chloride
					C	oncentrati	ions in par	ts per billio	n (ppb)					
SB-1-W	3/7/2002	390	380.0	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA
SB-2-W	3/7/2002	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA
SB-3-W	3/7/2002	460	310.0	<0.5	<0.5	0.73	1.3	<0.5	NA	NA	NA	NA	NA	NA
SB-4-W	3/7/2002	140,000	NA	810	1,900	470	14,000	<1,200	<5.0	470.0	<5.0	<5.0	<5.0	60
SB-5-W	3/7/2002	NA	NA	NA	NA	NA	NA	NA	<5.0	550.0	<5.0	<5.0	<5.0	36
1	I	1					l							1
GW-1	9/13/2002	<50	NA	<0.5	<0.5	<0.5	<1.0	<5.0	NA	NA	NA	NA	NA	NA
GW-2	9/13/2002	<50	NA	<0.5	<0.5	<0.5	<1.0	<5.0	NA	NA	NA	NA	NA	NA
GW-3	9/13/2002	210	NA	<0.5	1.1	2.3	3.5	<5.0	NA	NA	NA	NA	NA	NA
	· · · · · · · · · · · · · · · · · · ·	1												
А	5/5/2003	100	NA	<0.5	<1.0	<1.0	<1.0	23	<0.5	5.0	<1.0	<1.0	<0.5	1.6
В	5/5/2003	<50	NA	<0.5	<1.0	<1.0	<1.0	32	<0.5	<1.0	<1.0	<1.0	<0.5	0.54
С	5/5/2003	<50	NA	<0.5	<1.0	<1.0	<1.0	35	<0.5	2.5	<1.0	<1.0	<0.5	1.6
D	5/5/2003	<50	NA	<0.5	<1.0	<1.0	<1.0	17	<0.5	<1.0	<1.0	<1.0	<0.5	<0.5
E	5/5/2003	4,300	NA	<5.0	<10	<10	<10	<10	<5.0	<10	<10	<10	<5.0	<5.0
	I	1												ļ
SB-F	8/9/2004	5,000	<1,000	2.1	2.0	1.4	3.6	16	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0
SB-G	8/9/2004	1,200	4,900	<0.5	<0.5	<0.5	0.72	32	0.95	60	5.8	6.2	<0.5	4.6
SB-H	8/9/2004	<50	390	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SB-I	4/25/2005	48,000	<300,000	1,000	54.0	3,600	3,100	19	<5.0	48	<5.0	<5.0	<5.0	20
SB-J	4/25/2005	57,000	<80,000	170	40.0	2,800	7,900	18	<1.5	<25	<1.5	<5.0	<1.5	<1.5
SB-K	4/25/2005	86,000	<80,000	1,600	330.0	4,000	14,000	<25	<25	510	<25	<25	<25	<25
SB-L	4/26/2005	4,700	<3,000	0.82	0.9	3.7	1.7	7.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
SB-M	4/26/2005	1,500	<400	9.8	1.2	2.1	1.5	22	<0.5	7.9	0.55	<1.0	<0.5	0.72
SB-N	4/26/2005	8,800	<18,000	<0.5	0.9	16	3.8	23	0.82	15	1	<5.0	<0.5	1.5
SB-O	4/26/2005	140.0	310	0.72	<0.5	0.57	0.63	24	0.78	37	3.1	2.9	<0.5	1.4
ES	[*	100	100	100	1	30	20	5.0	0.5	6.0	10	5	5	0.5

TABLE 4- Grab Groundwater Sample Analytical Data - 925-949 West Grand Avenue, Oakland, California

Notes:

TPHg = Total petroleum hydrocarbons as gasoline

BTEX = Benzene, Toluene, Ethylbenzene, Xylenes

<X = Concentration less than laboratory reporting limits

NA = not available or not analyzed for the specific analyte

TPHd = Total petroleum hydrocarbons as diesel

MTBE = Methyl tertiary-butyl ether by EPA Method 8260

ND = not detected above laboratory detection limits

1,2-DCA = 1,2-Dichloroethane

Cis-1,2-DCE = Cis-1,2-Dichloroethene TCE = Trichloroethene Trans-1,2-DCE = Trans-1,2-Dichloroethene PCE = Perchloroethene or Tetrachloroethene

ESL* = Final Environmental Screening Level published by the California Regional Water Quality Control Board, February 2005, for groundwater in a drinking water zone

FIGURES





				RESIDENTIAL				
Key: ● Borings drilled ir ■ Borings drilled in ● Borings drilled i	 Key: Borings drilled in March 2002 (SB-1 through SB-5) Borings drilled in April 2005 (SB-I through SB-Q) Borings drilled in September 2002 (GW-1 through GW-3) Borings drilled in Max 2003 (A through E) 							
^O Borings drilled in	August 2004 (SB-F, SB-G, and	SB-H) UST	= UNDERGROUND) STORAGE TANK				
GOLDEN GATE 255 San Fra Ph (415) 512-1	TANK REMOVAL, INC. Shipley Street ncisco, CA 94107 555 Fx (415) 512-0964	925-949 Oał	Site Drawing West Grand Aver (land, California	nue				
GGTR Project No. 8741	March 2006	Drawing By: SM Figure 2						



				RESIDENTIAL					
 Key: Borings drilled in Borings drilled in O Borings drilled in ○ Borings drilled in O Borings drilled in O Monitoring wells 	 Key: Borings drilled in March 2002 (SB-1 through SB-5) Borings drilled in September 2002 (GW-1 through GW-3) Borings drilled in May 2003 (A through E) Borings drilled in August 2004 (SB-F, SB-G, and SB-H) Monitoring wells installed in August 2004 (MW-1 through MW-3) 								
GOLDEN GATE 255 San Fra Ph (415) 512-1	TANK REMOVAL, INC. Shipley Street ncisco, CA 94107 555 Fx (415) 512-0964	Petroleum H 925-949 Oak	Hydrocarbons In N West Grand Avenu Iand, California	Water Je					
GGTR Project No. 8741	March 2006	Drawing By: SM Figure 3							



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GOLDEN GATE 255 San Fra Ph (415) 512-1	TANK REMOVAL, INC. Shipley Street ncisco, CA 94107 555 Fx (415) 512-0964	Chlorinated 925-949 Oak	Hydrocarbons Ir West Grand Ave (land, California	n Water nue				
GGTR Project No. 8741	March 2006	Drawing By: SM Figure 4						



	B = Benzene concentration TPH-G = Total Petroleum TPH-D = Total Petroleum MTBE = Methyl Tertiary B	n in parts per billion (ppb) Hydrocarbons as Gasoline in ppb Hydrocarbons as Diesel in ppb utyl Ether concentration in ppb	RESIDENTIAL					
 Key: Borings drilled in Borings drilled in O Borings drilled in O Borings drilled in O Borings drilled in O Borings drilled in 	 Key: Borings drilled in March 2002 (SB-1 through SB-5) Borings drilled in September 2002 (GW-1 through GW-3) Borings drilled in May 2003 (A through E) Borings drilled in August 2004 (SB-F, SB-G, and SB-H) Monitoring wells installed in August 2004 (MW-1 through MW-3) 							
GOLDEN GATE 255 San Fra Ph (415) 512-1	E TANK REMOVAL, INC. Shipley Street ncisco, CA 94107 555 Fx (415) 512-0964	APPROXIMA AND PROPOSED A 925-94 C	TE EXTENT OF THE PLUME ADDTIONAL MONITORING WELLS 49 West Grand Avenue wakland, California					
GGTR Project No. 8741	March 2006	Drawing By: SM	Figure 5					

ATTACHMENT A

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Utility Location Map

(Generated by Aqua Science Engineers, Inc)



ATTACHMENT B

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Geophysical Survey Report



March 31, 2006

Sami Malaeb Golden Gate Tank Removal, Inc. 255 Shipley Street San Francisco, CA 94107

NORCAL Project No. 06-838.01

Subject : Geophysical Survey Former Dry Cleaners 941 W. Grand Ave. Oakland, California

Dear Mr. Malaeb,

The purpose of this letter report is to document the geophysical investigation conducted by NORCAL Geophysical Consultants, Inc. at the subject property on March 10, 2006. Using a combination of ground penetrating radar (GPR) and hand-held metal-detection (MD) methods, NORCAL geophysicist David Bissiri investigated accessible portions of the interior floor and exterior sidewalks of the closed restaurant that currently occupies the property. According to information provided to NORCAL, the past use of the property was that of a dry cleaning facility but it is not known if the underground storage tank(s) associated with this past facility are still present. Therefore, the reason for this survey was to determine if there is evidence of large buried objects suggestive of underground storage tanks (UST) or their associated piping. A summary of our field activities and findings is presented below.

The fist task undertaken by NORCAL was to sub-divide the accessible areas of the facility into five areas labeled A through E, as depicted on the accompanying hand-drawn field map. We then established a survey grid within each sub-area in order to provide horizontal control for the acquisition of GPR data. The survey grids consisted of a series of parallel lines spaced 2-feet apart that were oriented parallel to the long dimension of each area. GPR data were then collected by pushing a cart-mounted Geophysical Surveys Systems 3000 radar unit equipped with a 400 Mhz antenna along the lines . The data was uploaded to a field computer contained within the GPR instrument and processed to produce a series of 2-dimensional "time-slice" maps of the subsurface. These maps were then evaluated for GPR reflections suggestive of USTs and associated piping. Areas identified on the time-slice maps as having anomalous GPR reflections were then delineated with spray paint. Following the collection of GPR data, a Fischer TW-6 M-scope (a type of specialized metal-detector) was used to scan the areas for the presence of buried metal objects suggestive of USTs.

Based on our interpretation of the GPR data and the responses of the metal-detector, we identified one circular anomalous zone located in the northwest corner of sub-area A (see field map). This anomaly appears to be approximately 3-feet in diameter and is depicted on the field map as the



Golden Gate Tank Removal, Inc. March 31, 2006 Page 2

shaded circle labeled "Anomalous GPR Zone (primary)". While the size and shape of this anomaly is somewhat suggestive of a vertical UST, the follow-up portion of the investigation of this anomaly using the hand-held metal detector was inconclusive. It appears that the interior floor areas of the property are reinforced with steel rebars, which effectively prevented the collection of meaningful metal-detector results. A secondary anomalous GPR zone was also detected in the same general area. This secondary anomaly appears to be rectangular in shape and extends southward from the circular anomaly for a distance of approximately 15 feet (see field map). Based on its weaker GPR reflections and rectangular shape, this secondary anomaly is interpreted as possibly being due to a zone of differing sub-grade material than the surrounding areas.

STANDARD CARE and WARRANTY

The scope of NORCAL's services for this project consisted of using geophysical methods to assess the area of investigation for buried metal objects. The accuracy of our findings is subject to specific site conditions and limitations inherent to the techniques used. The services were performed in a manner consistent with the standard of care ordinarily exercised by members of the profession currently employing similar methods. No warranty, with respect to the services or products delivered under this agreement, expressed or implied, is made by NORCAL.

We appreciate having the opportunity to provide you with this information.

Respectfully,

NORCAL Geophysical Consultants, Inc.

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David Bissiri Geophysicist GP - 1009

DJB/KGB/tt

