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February 2, 2009

Ms. Donna Drogos
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

SUBJECT: SUBSURFACE INVESTIGATION REPORT CERTIFICATION
Brandywine Realty Trust Facility
2100 Franklin Street
Oakland, CA

Dear Ms. Drogos:

RGA Environmental, Inc. has prepared the following document:

- Subsurface Investigation (B23 Through B33) dated February 2, 2009 (document 0387.R6).

I declare under penalty of perjury that the contents and conclusions in the document are true and correct to the best of my knowledge.

Should you have any questions, please do not hesitate to contact me at (510) 457-9770.

Sincerely,

Brandywine Realty Trust

Donald Rogers
General Manager

Attachment



February 2, 2009
Report 0387.R6
BRT20266

Mr. Donald Rogers
Brandywine Realty Trust
2101 Webster Street, Suite 1600
Oakland, CA 94612

SUBJECT: SUBSURFACE INVESTIGATION (B23 THROUGH B33)
Brandywine Realty Trust
2100-2150 Franklin Street
Oakland, CA

Dear Mr. Rogers:

RGA Environmental, Inc. (RGA) is pleased to present this report documenting the results of samples from boreholes B23 through B33 for the offsite subsurface investigation of the horizontal extent of petroleum hydrocarbons in the vicinity of the subject site. The investigation was performed in an effort to complete the determination of the extent of petroleum hydrocarbons in groundwater associated with the former heating oil underground storage tank (UST) for the subject site. Field activities were performed as follows. Boreholes B23 through B26 were drilled on July 23 and July 29, 2008, boreholes B27 and B30 were drilled on August 28, 2008, and boreholes B31 through B33 were drilled on November 15, 2008.

A Site Location Map is attached as Figure 1, a Site Location Map Detail is attached as Figure 2. Site Vicinity Map Details showing the locations of the former UST, the area of UST pit over-excavation, onsite boreholes and wells, and boreholes in the immediate site vicinity are attached as Figures 3 and 4, respectively. Site Vicinity maps showing borehole locations associated with the current investigation and also showing TPH-BO concentrations in shallow groundwater are attached as Figures 5 and 6. Site Vicinity Map dimensions (Figures 3 through 6) were not surveyed and are approximate only. The maps were created using aerial photographs, selected measurements, and site blueprints where available.

All work was performed under the direct supervision of an appropriately registered professional. This investigation was performed in accordance with guidelines set forth in the document "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991.

EXECUTIVE SUMMARY

- Fuel oil from the former UST at 2100 Franklin Street appears to be moving in groundwater in a buried paleo channel. Based on topography, heating oil concentrations, and petroleum hydrocarbon composition, the paleo channel initially flows to the southwest from the site and then flows towards the southeast in the vicinity of 20th Street towards Lake Merritt.
- Based on petroleum hydrocarbon composition and the location of detected petroleum hydrocarbons, at least three additional plumes unrelated to the subject site were identified during the investigation at locations B26, B30 and B32. Additionally, during the previous subsurface investigation for the subject site the distal end of a very old gasoline plume was identified as encroaching on the subject site from an upgradient location.
- The horizontal extent of the fuel oil plume has been defined with maximum perimeter petroleum concentrations of 420 and 480 ug/L, and the vertical extent of the plume has been defined with a maximum petroleum concentration of 530 ug/L at location B19 at a depth of 59 feet bgs.
- RGA recommends that the site be considered for low risk case closure.

BACKGROUND

In the first half of 2006, the subject site was excavated to a depth of approximately 12 feet below the Franklin Street sidewalk for construction of a high-rise office building. During excavation at the site, the top of a heating oil UST was discovered on May 12, 2006 at a depth of approximately 8 feet below the Franklin Street sidewalk (see Figure 3). Inspection of the UST showed that the UST had been previously filled with concrete. The UST was measured as approximately four feet four inches in diameter and approximately 12 feet in length. The UST was removed from the UST pit and demolished and stored on site on May 23, 2006. All UST removal and demolition activities were performed following notification to, permitting with, and inspection of the UST by the City of Oakland Fire Department.

At the time of UST removal, soil samples (designated as T1-0.0 and T2-0.0) were collected from directly beneath the UST following excavation of approximately a one foot thick layer of loose, oily soil. The depth of collection for these two samples was equivalent to a depth of approximately 13 feet below the adjacent Franklin Street sidewalk. Sample T1 was collected at the north end of the UST, and sample T2 was collected at the south end of the UST. Two additional soil samples (designated as T1-2.0 and T2-2.0), were collected at a depth of two feet below the first two samples, which was equivalent to a depth of approximately 15 feet below the adjacent Franklin Street sidewalk. In addition, one groundwater grab sample was collected from borehole B1 at a depth of five feet beneath the bottom of the UST (approximately 17 feet below the adjacent Franklin Street sidewalk). Petroleum sheen was observed on the water collected from the borehole. Borehole B1 was hand augered directly beneath the UST. Mr. Jesse Kupers of the Oakland Fire Department was onsite to observe sample collection. The B1 borehole location is shown on Figure 3.

The soil sample results showed that MTBE and benzene, toluene, ethylbenzene, and xylenes (BTEX) were not detected in any of the samples. However, Total Petroleum Hydrocarbons as Diesel (TPH-D) was detected in the shallower T1 and T2 soils samples at concentrations of 7,300 and 170 milligrams per kilogram (mg/kg) respectively, and in the deeper T1 and T2 soil samples at 990 and 780 mg/Kg respectively. Total Petroleum Hydrocarbons as Motor Oil (TPH-MO) was detected in the shallower T1 and T2 samples at concentrations of 5,700 and 150 mg/Kg respectively, and in the deeper T1 and T2 soil samples at 880 and 690 mg/kg respectively (see Table 1). The T1 and T2 soil samples were not analyzed for Total Petroleum Hydrocarbons as Bunker Oil (TPH-BO). The laboratory identified the TPH-D results as fuel oil-range compounds. The groundwater grab sample from borehole B1 (designated as B1-Water) showed that MTBE and BTEX were not detected, and that TPH-D, TPH-MO, and TPH-BO were detected at concentrations of 64,000, 57,000, and 96,000 micrograms per liter (ug/L), respectively (see Table 1).

Borehole B2 was hand augered near the UST pit to first encountered groundwater which was encountered at a depth similar to the depth at which groundwater was encountered in borehole B1 (see Figure 3). Although discolored soil and petroleum hydrocarbon odors were encountered at a depth equivalent to approximately three feet below the bottom of the UST, the discoloration was interpreted to be related to horizontal movement of petroleum hydrocarbons in groundwater and associated capillary fringe wicking of petroleum hydrocarbons. No petroleum sheen was observed on the water in borehole B2. The subsurface materials encountered in boreholes B1 and B2 consisted of interlayered silty clay, fine-grained sand, silt, and clay.

Documentation of the UST demolition and associated sample results are presented in RGA's May 25, 2006 Underground Storage Tank Removal Report (document 0387.R1). The UST and concrete that was inside the UST were removed from the site on May 31, 2006.

Documentation of the UST and concrete disposal and associated petroleum-impacted soil disposal was provided in RGA's June 19, 2006 Underground Storage Tank Removal Report Addendum (document 0387.L3) addressed to Inspector Kupers.

At the time of UST removal, the entire site had been excavated to a depth of approximately 10 feet below the Franklin Street sidewalk. After the UST was demolished, soil at the site was removed to a depth of approximately 12 feet below the Franklin Street sidewalk. This depth was approximately the same depth as the depth of the bottom of the UST.

As part of the site construction, in July 2006 a grade beam was partially installed at the base of the west wall of the mass excavation, adjacent to Franklin Street. The grade beam trench measured approximately four feet wide and three feet deep. Soil removed from below the former UST and for a distance of approximately 10 feet from each end of the former UST in the grade beam trench was stockpiled on plastic and subsequently disposed of at the Richmond landfill.

As part of the construction activities at the site, a total of five dewatering wells were installed at the south end of the site in June, 2006. It is RGA's understanding that the pump intakes for the dewatering wells were set at a depth of approximately 15 feet below the bottom of the mass excavation (approximately 27 feet below the Franklin Street sidewalk).

Groundwater at the site was encountered during UST removal at a depth of approximately five feet below the bottom of the UST prior to site dewatering.

At the time of initial subsurface investigation the groundwater flow direction at the site was unknown. Although Lake Merritt is located to the east and southeast of the site, review of the topographic contours shown in Figures 1 and 2 suggested that the groundwater flow direction at the site could be to the west or southwest. Based on the site vicinity topography, offsite boreholes were proposed in the presumed downgradient direction to the west and southwest of the subject site.

Hand augering onsite boreholes B7 through B12 and soil boring offsite boreholes B13 through B22 was performed between June 5, 2006 and March 20, 2007. Excavation of petroleum-impacted soil was performed on August 11, 2006. Excavation of petroleum-impacted soil from the immediate vicinity of the former UST and hand augering boreholes C1 through C3 was performed in accordance with RGA's Soil Excavation Work Plan dated August 8, 2006 (document 0387.W2) addressed to the City of Oakland Fire Department. Groundwater monitoring well installation for onsite wells MW1 and MW2 to a depth of 13.0 feet below the bottom of the mass excavation was performed on August 15, 2006. Well installation was performed in accordance with RGA's Well Installation Work Plan dated August 14, 2006 (document 0387.W3) addressed to the City of Oakland Fire Department.

Both onsite and offsite subsurface investigation was performed in accordance with RGA's Subsurface Investigation Work Plan (B3 Through B17) dated June 1, 2006 (document 0387.W1) addressed to the City of Oakland Fire Department. Based on contaminant concentrations detected in offsite drilling locations B13, B16 and B17 and telephone conversations with Inspector Jesse Kupers of the City of Oakland Fire Department, offsite drilling locations B14 and B15 were moved from the originally proposed locations identified in the work plan and drilling location B18 was added to the scope of work. Additional offsite boreholes B19 through B22 were drilled to delineate the extent of groundwater contamination downgradient of the site following discussions with Inspector Kupers. Offsite borehole drilling included logging of soil conductivity logs to a depth of approximately 60 feet and collection of depth-discrete groundwater samples below first encountered water using a Hydropunch for vertical delineation of the extent of petroleum in groundwater. The groundwater sample results associated with the investigation are summarized in Table 1. Documentation of the onsite and offsite subsurface investigation is provided in RGA's Subsurface Investigation (B3-B22 And C1-C3) and Well Installation Report (MW1 and MW2) dated July 7, 2008 (document 0387.R3).

FIELD ACTIVITIES

Prior to performing field work, Alameda County Public Works Agency (ACPWA) permit 2008-0442 for four soil borings, designated B23 through B26, permit 2008-0540 for two soil borings, designated B27 and B30, and permit 2008-0835 for three soil borings, designated B31 through B33 were obtained, notification was provided to the ACPWA of the scheduled drilling dates, the drilling locations were marked with white paint, Underground Safety Alert was notified for buried utility location, and a health and safety plan was prepared.

Drilling was not performed at proposed locations B28 and B29 because sample results from other boreholes showed that drilling at these proposed locations was not necessary.

In addition, encroachment and excavation permits were obtained from the City of Oakland for boreholes B23 through B30, offsite property owner permission for site access was obtained for boreholes B31 through B33, the drilling locations were marked with white paint, Underground Service Alert was notified for underground utility location, a private utility locator identified the presence of underground utilities in the vicinity of boreholes B31 through B33, and traffic control plans were prepared for boreholes B23 through B30. All borehole drilling was performed during the regulatory transition period when the file was transferred from the City of Oakland to Alameda County Department of Environmental Health, and notification of the scheduled drilling dates was therefore not provided to either of these oversight agencies.

On July 23, 2008 RGA personnel oversaw the drilling of boreholes B23, B25, and B26; on July 29, 2008 RGA personnel oversaw the drilling of borehole B24; on August 28, 2008 RGA personnel oversaw the drilling a total of boreholes B27 and B30; and on November 15, 2008 RGA personnel oversaw the drilling of boreholes B31 through B33 at locations shown on Figures 5. Drilling was performed by Vironex, Inc. of Pacheco, California using GeoProbe direct push technology. Each of the borings was hand augered to depths ranging from 2.5 to 8.0 feet below the ground surface (bgs) using a 3.5-inch O.D. hand auger for underground utility clearance, and then drilled to depths ranging from 8.0 to 30 feet bgs.

Boreholes B31 through B33 were drilled in a parking garage using a limited access drill rig. Drilling refusal was encountered in borehole B23 at a depth of 8.0 feet bgs, and in boreholes B31, B32 and B33 at depths of 13.5, 16.0, and 14.0 feet bgs, respectively. All the borings were continuously cored using Geoprobe Macrocore barrel samplers lined with transparent PVC sleeves.

The soil from the boreholes was logged in the field in accordance with standard geologic field techniques and the Unified Soil Classification System. The soil from the boreholes was evaluated with a Photoionization Detector (PID) equipped with a 10.6 eV bulb and calibrated with a 100 ppm isobutylene standard. The soil was also evaluated for other evidence of petroleum hydrocarbon contamination such as odors, staining, and discoloration. Elevated PID values, odors, staining, or discoloration were detected only in borehole B32, and a slight oily odor was encountered in borehole B24 between the depths of 14.0 and 20.0 feet bgs. Copies of the boring logs are attached with this report.

Soil samples were retained for laboratory analysis at 3.0 ft. intervals in borehole B32 only. The convention used for sample designation was to identify the sample collection depth based on the depth at the top of the sample collection interval. Soil samples were collected and retained for laboratory analysis in the following manner. A six-inch long soil sample from the continuous core was retained in the transparent PVC tube by cutting the core barrel sample liner at the depth corresponding to the desired sample collection interval. The ends of the selected portion of tube were sequentially covered with aluminum foil and plastic endcaps, and the tube was then labeled and stored in a cooler with ice pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling.

One groundwater grab sample was collected from each borehole except for B23 where drilling refusal was encountered at a depth of 8.0 feet and no groundwater was encountered in the borehole. The groundwater grab samples were collected from boreholes B25, B27 and B30 through B33

using a temporary 1-inch diameter slotted PVC pipe and a polyethylene tube with a stainless steel check valve. In boreholes B24 and B26 the boreholes collapsed when the drilling rods were removed from the boreholes after the boreholes had been drilled to 30.0 and 25.0 feet bgs, respectively. In borehole B24 the Hydropunch was pushed to 30.0 feet bgs and the outer rod retracted to 26.0 feet bgs for groundwater sample collection. In borehole B26 the Hydropunch was pushed to 27.0 feet bgs and the outer rod retracted to 22.0 feet bgs for groundwater sample collection. Following removal of the Hydropunch rod from borehole B24 the borehole collapsed again, preventing measurement of the depth to groundwater in the borehole. Following removal of the Hydropunch rod from borehole B26, the borehole did not collapse and the measured depth to groundwater in the borehole was 17.4 feet bgs.

The groundwater samples were placed into 40-milliliter VOAs and 1-liter amber glass bottles preserved with hydrochloric acid and capped with Teflon-lined screw caps. Because of slow recharge and heavy silt concentrations in boreholes B32 and B33, samples were collected into 40-millimeter VOAs, only. All sample containers were clean and provided by the laboratory. The VOAs were overturned and tapped to ensure that no air bubbles were present. The samples were then stored in a cooler with ice, pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling.

All drilling and sampling equipment was cleaned with an Alconox solution followed by a clean water rinse prior to use in each borehole. Following completion of sample collection activities, the boreholes were filled with neat cement grout using a tremie pipe. No inspector from ACPWA was assigned to observe grouting procedures on July 23, 2008 and July 29, 2008.

Ms. Vicky Hamlin of the ACPWA was on site to observe grouting procedures on August 28, 2008, and no inspector from ACPWA was present on site to observe grouting procedures on November 15, 2008. An e-mail confirmation for work completion was sent to Ms. Vicky Hamlin on November 18, 2008.

Soil generated during drilling was stored in drums at the subject site pending characterization and disposal.

A total of two drums of soil were removed from the subject site on November 18, 2009 as non-hazardous waste. The soil was removed by Clearwater Environmental, Inc. of Union City, California, and was transported to the Alviso Independent Oil facility in Alviso, California using non-hazardous waste manifest number 6195. A copy of the manifest is attached with this report.

GEOLOGY AND HYDROGEOLOGY

Based on review of regional geologic maps from U.S. Geological Survey (USGS) Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E.J. Helley and K.R. Lajoie, 1979 the subject site is underlain by Late Pleistocene alluvium (Qpa). The alluvium is described as typically consisting of weakly consolidated slightly weathered poorly sorted irregularly interbedded clay, silt, sand and gravel.

Review of Figures 1 and 2 shows that the topography at the site slopes to the west, and that a southerly-trending stream channel was at one time located immediately to the west of the subject site. The historic channel became an easterly-trending channel approximately 500 feet to the south of the subject site. Lake Merritt is located approximately 1,000 feet to the east of the site at a surface elevation that is approximately 15 feet lower than the subject site. The historic stream channel located to the east and south of the subject site drained to the present-day location of Lake Merritt.

The subsurface materials encountered in the UST pit walls at the subject site consisted of gray sandy silt and clay. Beneath the UST and the bottom of the adjacent mass excavation, the subsurface materials encountered in onsite boreholes B1 through B12 consisted of interlayered gravel, sand, silt and clay layers to the total depths explored. Review of the boring logs and soil conductivity logs for offsite boreholes B13 through B22 shows that the subsurface materials in the site vicinity consist of irregularly interbedded gravel, sand, silt and clay layers. The layers are discontinuous, preventing correlation of the layers between boreholes. Geologic cross sections and a discussion of the geologic cross sections are provided in in RGA's Subsurface Investigation (B3-B22 And C1-C3) and Well Installation Report (MW1 and MW2) dated July 7, 2008 (document 0387.R3).

In the onsite boreholes, groundwater was not encountered while hand augering in boreholes B3 through B6. Groundwater was first encountered during hand augering in onsite boreholes B7 through B12 at depths ranging from approximately 5 to 7 feet below the bottom of the mass excavation, which corresponds with depths of approximately 17 to 19 feet below the adjacent sidewalk surface.

In boreholes C1 through C3, groundwater was first encountered during hand augering at depths of 12.0, 10.2 and 12.3 feet below the bottom of the mass excavation, which corresponds with depths of approximately 24.0, 22.2, and 24.3 feet below the adjacent sidewalk surface. The differences in water levels between the B-Series and C-Series borehole water levels can be attributed to dewatering activities at the site.

Boreholes B7 through B12 were hand augered before dewatering began at the site, and that boreholes C1 through C3 were hand augered approximately two months after dewatering had begun at the site.

Groundwater was encountered while drilling in offsite boreholes B13 through B22. The depths of first encountered groundwater in boreholes B13 through B22 were 27.0, 24.1, 23.0, 13.5, 28.0, 25.0, 15.0, 18.0, 16.0, and 17.4 feet bgs, respectively. No information was available from the offsite boreholes for water levels in the boreholes after groundwater was initially encountered.

For the current investigation, boreholes B25, B27, and B30 were drilled to a depth of 20.0 feet, B26 was drilled to 25.0 feet, B24 to 30.0 feet, and B23 encountered drilling refusal at 8.0 feet bgs. Boreholes B31, B32, and B33 were drilled to depths of 13.5, 16.0, and 14.0 feet bgs, respectively, where in each case drilling refusal was encountered.

In boreholes B23 through B26, fill materials were encountered to depths of between 6 and 15 feet bgs. The fill materials consisted of loose brown or gray sand, and sandy and silty clay, which included concrete, rubber, glass, rubble, wood debris, brick fragments, and tree roots. In borehole B26, however, scattered brick and cement fragments identified in sand intervals present between 6.0 to 12.0 feet and 15.0 to 19.5 feet bgs were attributed to slough originating from fill materials in the interval from 3.0 to 6.0 feet, and those deeper sand intervals are considered native material and not fill.

Other than fill materials, the subsurface materials encountered in boreholes B23 through B33 consisted mainly of interlayered sand, silty sand, clayey sand, and clay layers to the total depths explored. Gravel was commonly present in the sandy layers. As with the subsurface materials encountered in previously drilled boreholes B12 through B22, the various sand, silt, and clay layers appear to be irregularly interbedded and discontinuous, preventing detailed correlation of the layers between boreholes. Relatively coarse-grained materials (sand, silty sand, or clayey sand) were encountered beneath fill material to the total depths explored in boreholes B24 through B30 as follows. In boreholes B24 and B26, clay (and silt) layers were interbedded within the layers of coarser materials; in borehole B25 a clay layer was present between fill and underlying coarser materials; and in boreholes B27 and B30 no clay layers were encountered in the boreholes. In boreholes B31 through B33, coarse-grained materials were also encountered beneath surface cover materials of concrete and baserock as follows. In B31 and B32, finer grained materials (mainly silty clay and clayey silt) were present immediately beneath the surface cover materials to depths of 3.0 to 4.0 feet bgs, and were underlain, as in boreholes B24 through B30, by coarser-grained materials with interbedded clays and silts to the total depths explored. In borehole B33, unlike the other boreholes drilled during the current investigation, silty clay was encountered, with the exception of coarser materials between 0.5 to 1.5 feet, and 3.0 to 3.5 feet bgs.

In boreholes B23 through B33, groundwater was encountered during drilling only in borehole B30, at 14.0 feet bgs. The measured depth to groundwater subsequent to drilling in boreholes B25, B27, B30, B32, and B33 ranged from 11.9 to 14.4 feet bgs, and 8.1 feet bgs in borehole B31. In borehole B26, the groundwater level subsequent to drilling was 17.4 feet bgs, but was measured following partial borehole collapse and groundwater sample collection from the borehole using a Hydropunch.

Groundwater was not encountered in borehole B23, and no groundwater level measurements subsequent to groundwater sample collection were taken in borehole B24, where water level measurements could not be taken due to borehole collapse both prior to and after groundwater sample collection using a Hydropunch.

As discussed above, based on site vicinity topography buried paleo stream channels appear to be present to the east and south of the subject site. Groundwater flow in the vicinity of the subject site is suspected to be primarily controlled by the buried paleo stream channel deposits. However, based on the highly variable coarse-grained nature of subsurface materials in the vicinity of the subject site, groundwater flow in the vicinity of the site is not considered to be exclusively confined to the paleo channel deposits.

Groundwater flow at the subject site is considered to generally follow the paleo channel deposits, initially moving southwestward from the subject site and eventually moving eastward towards Lake Merritt as the paleo channel deposits assume an easterly trend approximately 500 feet south of the subject site.

LABORATORY ANALYSIS

All of the groundwater samples collected from boreholes B24 through B27 and B30 through B33 were analyzed for Total Petroleum Hydrocarbons as Diesel (TPH-D), Total Petroleum Hydrocarbons as Bunker Oil (TPH-BO), and Total Petroleum Hydrocarbons as Motor Oil (TPH-MO) using EPA Methods 3510C in conjunction with modified EPA Method 8015C; and for Total Petroleum Hydrocarbons as Gasoline (TPH-G) and methyl tertiary-butyl ether (MTBE), benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 5030B in conjunction with EPA Methods 8021B and modified EPA Method 8015C. The borehole groundwater sample results are summarized in Table 2. Copies of the laboratory analytical reports and chain of custody documentation are attached with this report.

Although the soil samples collected at borehole B32 were delivered to the laboratory, the chain of custody for the soil samples was subsequently transferred to Treadwell & Rollo (consultant to the property owner where borehole B32 was drilled). Copies of the laboratory reports with the soil sample results had not been provided by Treadwell & Rollo by the time this report was prepared, and are therefore not included in this report.

Review of the groundwater analytical results collected from all of the boreholes shows that none of the analytes were detected in borehole B27. For the remaining groundwater samples, MTBE was not detected in any of the samples, TPH-G was only detected in the groundwater samples collected from boreholes B26, B32, and B33 at concentrations of 190, 130,000, and 230 µg/L, respectively, and BTEX compounds were only detected in samples collected from boreholes B26, B31, B32 and B33.

Review of the laboratory analytical reports shows that the TPH-G results for the sample from borehole B26 are identified by the laboratory as consisting of heavier gasoline compounds which are characteristic of aged gasoline, and that the TPH-G in the remaining samples is not identified as aged gasoline.

TPH-D was detected in all of the groundwater samples (with the exception of the sample collected from borehole B27) at concentrations as follows: 110 to 780 ug/L in samples from boreholes B24, B30, B31 and B33; 1,900 ug/L in the sample from borehole B25; 37,000 ug/L in the sample from borehole B26; and 170,000 ug/L in the sample from borehole B32. Review of the laboratory analytical reports shows that the B32 results are identified as gasoline-range compounds; the B33 results are identified as gasoline-range and oil-range compounds; the results from B24, B30 and B31 are identified as both diesel-range compounds with no recognizable pattern and oil-range compounds; and the B25 and B26 results are identified as fuel oil.

TPH-BO was detected in all of the groundwater samples (with the exception of the sample collected from borehole B27) at concentrations as follows: 420 and 480 ug/L in samples from boreholes B24 and B31, respectively; 1,700 to 3,700 ug/L in the samples from boreholes B25, B30 and B33; 15,000 ug/L in the sample from borehole B26; and 160,000 ug/L in the sample from borehole B32.

Similarly, TPH-MO was detected in all of the groundwater samples (with the exception of the sample collected from boreholes B27 and B32) at concentrations as follows: 270 and 620 ug/L in samples from boreholes B24, B25 and B31; 1,300 and 2,900 ug/L in the samples from boreholes B33 and B30, respectively; and 15,000 ug/L in the sample from borehole B26.

Review of the results for the detected BTEX compounds shows that the concentrations range from 0.98 to 14 and 0.93 to 7.6 ug/L in the samples from boreholes B26 and B31, respectively; from 3.0 to 51 ug/L in the sample from borehole B33; and from 2,700 to 23,000 ug/L in the sample from borehole B32.

Comparison of the sample results with their respective San Francisco Bay Regional Water Quality Board's (SF-RWQCB) Environmental Screening Level (ESL) values (see Table 2), shows that all detected TPH-G, TPH-D, TPH-BO, and TPH-MO concentrations exceeded their respective ESL values. Similarly, comparison of the detected BTEX compound results with their respective ESL values shows that ESL values were only exceeded for benzene and xylenes in the sample from borehole B33, and for all BTEX compounds in the sample from borehole B32.

DISCUSSION AND RECOMMENDATIONS

Review of the groundwater sample results from the previous subsurface investigation shows that the petroleum hydrocarbons associated with the former heating oil UST do not contain BTEX compounds (with a few minor exceptions at near-detection limit concentrations), and that the Bunker Oil range hydrocarbons best characterize the petroleum chromatograms. The absence of BTEX is consistent with heating oil petroleum hydrocarbons. The presence of low concentrations of BTEX compounds in upgradient locations B8 and B9 is interpreted to be the distal end of a very old gasoline plume that was encroaching on the subject site from upgradient of the subject site.

As discussed in the geology section above, Figures 1, 2 and 4 show that the topography at the site slopes to the west, and that a southerly-trending stream channel was at one time located immediately to the west of the subject site.

The historic channel became an easterly-trending channel approximately 500 feet to the south of the subject site (approximately coincident with 20th Street). Lake Merritt is located approximately 1,000 feet to the east of the site at a surface elevation that is approximately 15 feet lower than the subject site. The historic stream channel located to the east and south of the subject site drained to the present-day location of Lake Merritt.

Review of Figure 4 shows that all of the groundwater sample results collected to the north of 21st Street support a southwesterly groundwater flow direction at the site, as evidenced by TPH-BO concentrations exceeding 1,000 ug/L in groundwater samples collected from boreholes B1, B13, B17 and B18, and TPH-BO concentrations of less than 1,000 ug/L in all surrounding groundwater samples. To the south of 21st Street, the TPH-BO groundwater concentration exceeding 1,000 ug/L at B22 and the associated TPH-BO concentration of less than 1,000 ug/L at B21 support the continued southwesterly groundwater flow direction. However, the presence of TPH-BO concentrations exceeding 1,000 ug/L at boreholes B19 and B25 conforms to the easterly trend of the surface topography in the vicinity of 20th Street and supports the interpretation that groundwater flow direction is similar to changes in surface topography to the south of the site. Easterly groundwater flow direction in the vicinity of 20th Street is further supported by the reduced concentration of TPH-BO in the sample collected from borehole B24 and the absence of detected petroleum hydrocarbons in the groundwater sample collected from borehole B27.

Review of Table 1 also shows that all of the TPH-D results for the shallow groundwater samples collected during the previous subsurface investigation (B13 through B22) were identified by the laboratory as fuel oil-range compounds. Similarly, review of Table 2 shows that the TPH-D results for the groundwater samples collected during the current investigation that are identified as located inside the TPH-BO plume on Figure 4 (B24, B25 and B31) are also identified by the laboratory as consisting of fuel oil or oil-range compounds.

Review of Table 2 and Figure 5 shows that petroleum in groundwater with sources other than the subject site heating oil UST were identified at drilling locations B26, B30 and B32. The rationale for each of these locations having a petroleum source other than the subject site heating oil UST is provided below.

- The B26 TPH-G results in Table 2 are described by the laboratory as consisting of heavier gasoline compounds or aged gasoline, and the TPH-D results are described by the laboratory as consisting of fuel oil. The relative concentrations of TPH-G and TPH-BO suggest that the majority of the sample consists of fuel oil-range compounds. Although the petroleum detected at B26 is identified as consisting primarily of fuel oil, the presence of elevated concentrations of BTEX compounds relative to the concentrations of BTEX compounds detected in samples associated with the subject site heating oil UST suggests that the petroleum detected at B26 is a different petroleum than the petroleum detected at the subject site. Additionally, review of Figures 4 and 6 shows that TPH-BO concentrations in samples collected from boreholes B10, B11, B12, B14 and B15 (located between the subject site former UST and B26) all have TPH-BO concentrations of less than 1,000 (substantially lower than the TPH-BO concentration of 40,000 at B26).

- The B30 TPH-G results in Table 2 show that no gasoline-range compounds were detected, and that also no BTEX compounds were detected. The TPH-D results are described by the laboratory as consisting of diesel-range compounds with no recognizable pattern and of oil-range compounds. Additionally, review of the different petroleum ranges detected shows that the highest concentration of petroleum was described as TPH-BO (3,700 ug/L). All of the analytical results strongly identify the petroleum as a heating oil release. However, review of Figure 4 shows that borehole B30 was located topographically approximately 10 feet above B27 where no petroleum was detected, and approximately 10 feet above B24 where 420 ug/L of TPH-BO was detected. Both locations B27 and B24 are located between B30 and the TPH-BO plume associated with the subject site former heating oil UST. Based on the ground surface slope and the interpreted easterly flow of groundwater towards Lake Merritt in a paleo channel located in the vicinity of 20th Street, the TPH-BO detected at B30 is most likely moving in a northeasterly direction parallel to Webster Street and has not yet reached 20th Street.
- The B32 TPH-D results in Table 2 are described as consisting of gasoline-range compounds. Additionally, the elevated concentrations of BTEX (see Table 2 and Figure 6) are characteristic of gasoline releases. Figure 7 is a portion of the 1960 parking garage floor plan blueprint that shows plumbing connecting gasoline USTs located outside the building and a structure inside the parking garage that appears to be a former dispenser island adjacent to borehole B32. A concrete patch in the parking garage floor is located approximately where the rectangle with the large X is located (immediately north of B32) on Figure 7. A brass plate is located in the middle of the concrete patch, and when the brass plate was removed the ends of electrical wires fitted with electrical nuts were identified in a void beneath the brass plate. At the time that the private utility locator scanned the parking garage for underground utilities using ground penetrating radar and a magnetometer (immediately prior to drilling), no metal objects were identified beneath the concrete slab. The equipment operator described the area beneath the slab as consisting of a sand-filled void extending several feet below the ground surface.

The fuel oil groundwater plume associated with the subject site former heating oil UST has been defined horizontally during the current investigation to the east by borehole B31, and to the south by boreholes B27 and B24. During the previous subsurface investigation the fuel oil groundwater plume associated with the former heating oil UST was defined horizontally to the west by boreholes B21, B20, B16, to the north of the former heating oil UST by B7, and to the east of the former heating oil UST by boreholes B8, B9, and B12.

Petroleum hydrocarbons were detected in groundwater below first encountered groundwater at locations B13 and B14 immediately downgradient of the former UST pit (at a depth of 41 feet bgs in each borehole), however vertical attenuation of petroleum concentrations was observed at each location to concentrations of 150 and 340 ug/L, respectively (see Table 1 and Figure 4). Similarly, vertical attenuation was observed at locations further downgradient in the plume (B14, B15, B18 and B19) at a depth of approximately 60 feet bgs. Based on the detected presence of petroleum in Hydropunch samples from depths of approximately 60 feet, it appears that the discontinuous nature

of the interbedded coarse-grained layers encountered during drilling and the permeable nature of many of the layers results in the vertical movement of groundwater and petroleum between shallow and deeper groundwater. Although not all locations within the plume have been evaluated for vertical attenuation, it appears that the evaluation of the vertical extent of petroleum in groundwater has consistently shown the vertical attenuation of petroleum concentrations, with the highest concentration detected at depth in groundwater at location B19 at a depth of 59 feet bgs of 530 ug/L. Based on the near-complete absence of BTEX in the plume and the rates of vertical attenuation identified in boreholes where the vertical extent of petroleum in groundwater was evaluated, RGA recommends that no further vertical delineation of the plume be performed.

Based on the near-complete absence of BTEX in the plume, and the delineation of the horizontal and vertical extent of the plume, RGA recommends that the site be considered for low-risk case closure.

DISTRIBUTION

A copy of this report will be uploaded to the Alameda County ftp website and to GeoTracker.

LIMITATIONS

This report was prepared solely for the use of Brandywine Realty Trust. The content and conclusions provided by RGA Environmental, Inc. in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgement based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

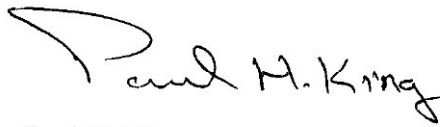
This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. RGA Environmental, Inc. is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgement based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

February 2, 2009
Report 0387.R6

Should you have any questions, please do not hesitate to contact us at (510) 547-7771.

Sincerely,
RGA Environmental, Inc.



Paul H. King
Professional Geologist #5901
Expires: 12/31/09



Kenneth Pilgrim
Project Manager

Attachments:

- Table 1 – Summary of Laboratory Analytical Results, Historic Groundwater Grab Samples
- Table 2 – Summary of Laboratory Analytical Results, Current Investigation Groundwater Grab Samples
- Figure 1 - Site Location Map
- Figure 2 - Site Location Map Detail
- Figure 3 - Site Location Map Showing Borehole Locations
- Figure 4 - Site Vicinity Map Detail Showing TPH-Bunker Oil in Shallow Groundwater
- Figure 5 - Site Vicinity Map Showing TPH-Bunker Oil in Shallow Groundwater
- Figure 6 - Site Vicinity Map Showing Detected MBTEX Compounds in Shallow Groundwater
- Figure 7 – Blueprint Detail of First Level of Parking Garage
- Soil Boring Logs
- Non-Hazardous Waste Manifest
- Laboratory Reports and Chain of Custody Documentation

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0387.R6

TABLES

TABLE 1
SUMMARY OF LABORATORY ANALYTICAL RESULTS
HISTORIC ONSITE GROUNDWATER SAMPLES
(Samples Collected on May 23, June 5-6, and August 11, 2006)

Sample No.	Depth (feet)**	TPH-G	TPH-D	TPH-BO	TPH-MO	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes
B1-Water	5.0	54,a,c	64,000,d,c	96,000	57,000	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B7-Water	5.2	ND<50	ND<50	53,f	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B8-Water	5.9	54,b	78,e	120	ND<250	ND<5.0	ND<0.5	ND<0.5	2.4	14
B9-Water	6.3	ND<50	ND<50	82,f	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	0.70
B10-Water	7.3	ND<50	ND<50	99	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B11-Water	6.6	ND<50	200,d	400	320	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B12-Water	6.2	ND<50	60	170	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
C1-Water	13.5	ND<50	ND<50	63,f	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
C2-Water	11.0	ND<50	5,700,d	9,000	6,400	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
C3-Water	14.0	ND<50	200,d	350	300	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ESL ₁		100	100	100	100	5.0	1.0	40	30	20

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-BO = Total Petroleum Hydrocarbons as Bunker Oil.

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil

MTBE = Methyl Tertiary-Butyl Ether

ND = Not Detected.

a = Laboratory Reporting Note: strongly aged gasoline or diesel range compounds are significant.

b = Laboratory Reporting Note: heavier gasoline range compounds are significant (aged gasoline).

c = Laboratory analytical report note: lighter than water immiscible sheen/product is present.

d = Laboratory analytical report note: oil range compounds are significant.

e = Laboratory Reporting Note: one to a few isolated peaks present.

f = Laboratory Reporting Note: value is an estimate.

** Depth is measured from bottom of mass excavation, which is approximately 12 feet below ground surface.

ESL₁ = Environmental Screening Level, developed by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A - Groundwater is a current or potential source of drinking water.

Results in bold exceed their respective ESL value.

No groundwater samples were collected from boreholes B2 through B6.

Results are in micrograms per Liter (ug/L), unless otherwise noted.

TABLE 1 (Continued)
SUMMARY OF LABORATORY ANALYTICAL RESULTS
HISTORIC OFFSITE GROUNDWATER SAMPLES

(Samples Collected on November 8, 14, 16, 2006, January 30, February 1, and March 19 and 20, 2007)

Sample No.	Depth (feet)	TPH-G	TPH-D	TPH-BO	TPH-MO	MTBE	Benzene	Toluene	Ethylbenzene	Total Xylenes
B13a-28W	28.0	ND<50	150 , d	1,300	890	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B13-41W	41.0	ND<50	ND<50	150	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B14-27W	27.0	ND<50	86, d,e	650	560	ND<5.0	ND<0.5	0.61	ND<0.5	ND<0.5
B14a-56W	56.0	ND<50	ND<50	230	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B15-30W	30.0	ND<50	68, d	680	630	ND<5.0	ND<0.5	0.90	ND<0.5	1.9
B15a-60W	60.0	ND<50	63	290	ND<250	ND<5.0	ND<0.5	0.65	ND<0.5	1.0
B16-25W	25.0	ND<50	ND<50	380	250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B17a-34W	34.0	ND<50	530 , d	1,400	1,000	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B17b-41W	41.0	ND<50	ND<50	340	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B18-25W	25.0	ND<50	340 , d	2,700	2,400	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B18a-59W	59.0	ND<50	69	240	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B19-20W	20.0	ND<50	560 , d	2,100	1,700	ND<5.0	ND<0.5	0.80	ND<0.5	ND<0.5
B19a-52W	52.0	ND<50	140 , d	530	560	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B20-20W	20.0	ND<50	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B21-20W	20.0	ND<50	ND<50	ND<50	ND<250	ND<5.0	ND<0.5	ND<0.5	ND<0.5	1.2
B22-20W	20.0	ND<50	220 , d	1,500	1,200	ND<5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ESL ₁		100	100	100	100	5.0	1.0	40	30	20

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil

TPH-BO = Total Petroleum Hydrocarbons as Bunker Oil.

MTBE = Methyl Tertiary-Butyl Ether

ND = Not detected above laboratory reporting limit.

a = Laboratory Reporting Note: strongly aged gasoline or diesel range compounds are significant.

b = Laboratory Reporting Note: heavier gasoline range compounds are significant (aged gasoline).

c = Laboratory analytical report note: lighter than water immiscible sheen/product is present.

d = Laboratory analytical report note: oil range compounds are significant.

e = Laboratory Reporting Note: one to a few isolated peaks present.

f = Laboratory Reporting Note: value is an estimate.

ESL₁ = Environmental Screening Level, developed by San Francisco Bay – Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A - Groundwater is a current or potential source of drinking water.

Results in bold exceed their respective ESL value.

No groundwater samples were collected from boreholes B2 through B6.

Results are in micrograms per Liter (ug/L), unless otherwise noted.

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
CURRENT INVESTIGATION GROUNDWATER GRAB SAMPLES
(Samples collected July 23 through November 15, 2008)

Sample No.	TPH-G	TPH-D	TPH-BO	TPH-MO	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
B24W	ND<50	130, d,h	420	350	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B25W	ND<50	1,900, g	1,900	620	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B26W	190, b, c	37,000, c, g	40,000	15,000	ND< 5.0	ND<0.5	14	0.98	3.6
B27W	ND<50	ND<50	ND< 100	ND< 250	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
B30W	ND<50	780, d, h	3,700	2,900	ND< 5.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ESL ₁	100	100	100	100	5.0	1.0	40	30	20

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-BO = Total Petroleum Hydrocarbons as Bunker Oil.

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil

MTBE = Methyl Tertiary-Butyl Ether

ND = Not Detected.

a = Laboratory Reporting Note: strongly aged gasoline or diesel range compounds are significant.

b = Laboratory analytical report note: heavier gasoline compounds are significant (aged gasoline?).

c = Laboratory analytical report note: lighter than water immiscible sheen/product is present.

d = Laboratory analytical report note: oil range compounds are significant.

e = Laboratory Reporting Note: one to a few isolated peaks present.

f = Laboratory Reporting Note: value is an estimate.

g = Laboratory analytical report note: fuel oil.

h = Laboratory analytical report note: diesel range compounds are significant; no recognizable pattern.

i = Laboratory analytical report note: gasoline range compounds are significant.

ESL=Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A – Shallow Soil Screening Levels, Groundwater is a current or potential source of drinking water

BOLD = Concentration in excess of applicable ESL.

Results in µg/L, unless otherwise indicated.

TABLE 2 (Continued)
 SUMMARY OF LABORATORY ANALYTICAL RESULTS
 CURRENT INVESTIGATION GROUNDWATER GRAB SAMPLES
 (Samples collected July 23 through November 15, 2008)

Sample No.	TPH-G	TPH-D	TPH-BO	TPH-MO	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
B31W	ND<50	110, d,h	480	270	ND< 5.0	ND<0.5	4.0	0.93	7.6
B32W	130,000	170,000, i	160,000	ND< 12,000	ND< 5.0	2,700	15,000	4,300	23,000
B33W	230	440, d,i	1,700	1,300	ND< 5.0	3.0	21	9.0	51
ESL ₁	100	100	100	100	5.0	1.0	40	30	20

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH-D = Total Petroleum Hydrocarbons as Diesel.

TPH-BO = Total Petroleum Hydrocarbons as Bunker Oil.

TPH-MO = Total Petroleum Hydrocarbons as Motor Oil

MTBE = Methyl Tertiary-Butyl Ether

ND = Not Detected.

a = Laboratory Reporting Note: strongly aged gasoline or diesel range compounds are significant.

b = Laboratory analytical report note: heavier gasoline compounds are significant (aged gasoline?).

c = Laboratory analytical report note: lighter than water immiscible sheen/product is present.

d = Laboratory analytical report note: oil range compounds are significant.

e = Laboratory Reporting Note: one to a few isolated peaks present.

f = Laboratory Reporting Note: value is an estimate.

g = Laboratory analytical report note: fuel oil.

h = Laboratory analytical report note: diesel range compounds are significant; no recognizable pattern.

i = Laboratory analytical report note: gasoline range compounds are significant.

ESL=Environmental Screening Level, developed by San Francisco Bay - Regional Water Quality Control Board (SF-RWQCB) updated May 2008, from Table A – Shallow Soil Screening Levels, Groundwater is a current or potential source of drinking water

BOLD = Concentration in excess of applicable ESL.

Results in µg/L, unless otherwise indicated.

FIGURES

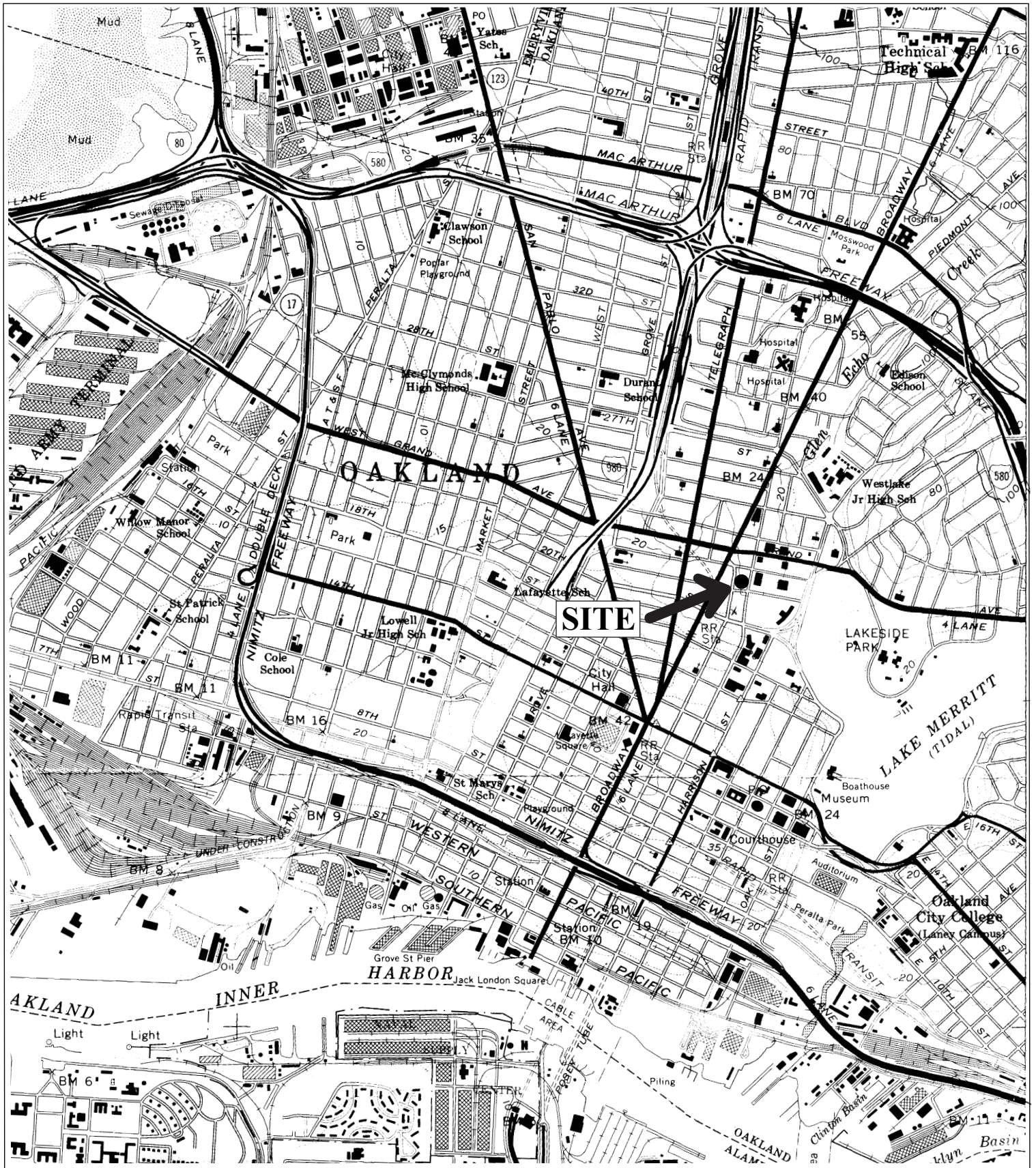
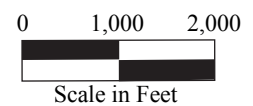


Figure 1
 Site Location Map
 2100 Franklin Street
 Oakland, California



Base Map from:
 U.S. Geological Survey
 Oakland West, Calif.
 7.5 Minute Quadrangle
 Photorevised 1980

RGA Environmental, Inc.
 1466 66th Street
 Emeryville, CA 94608



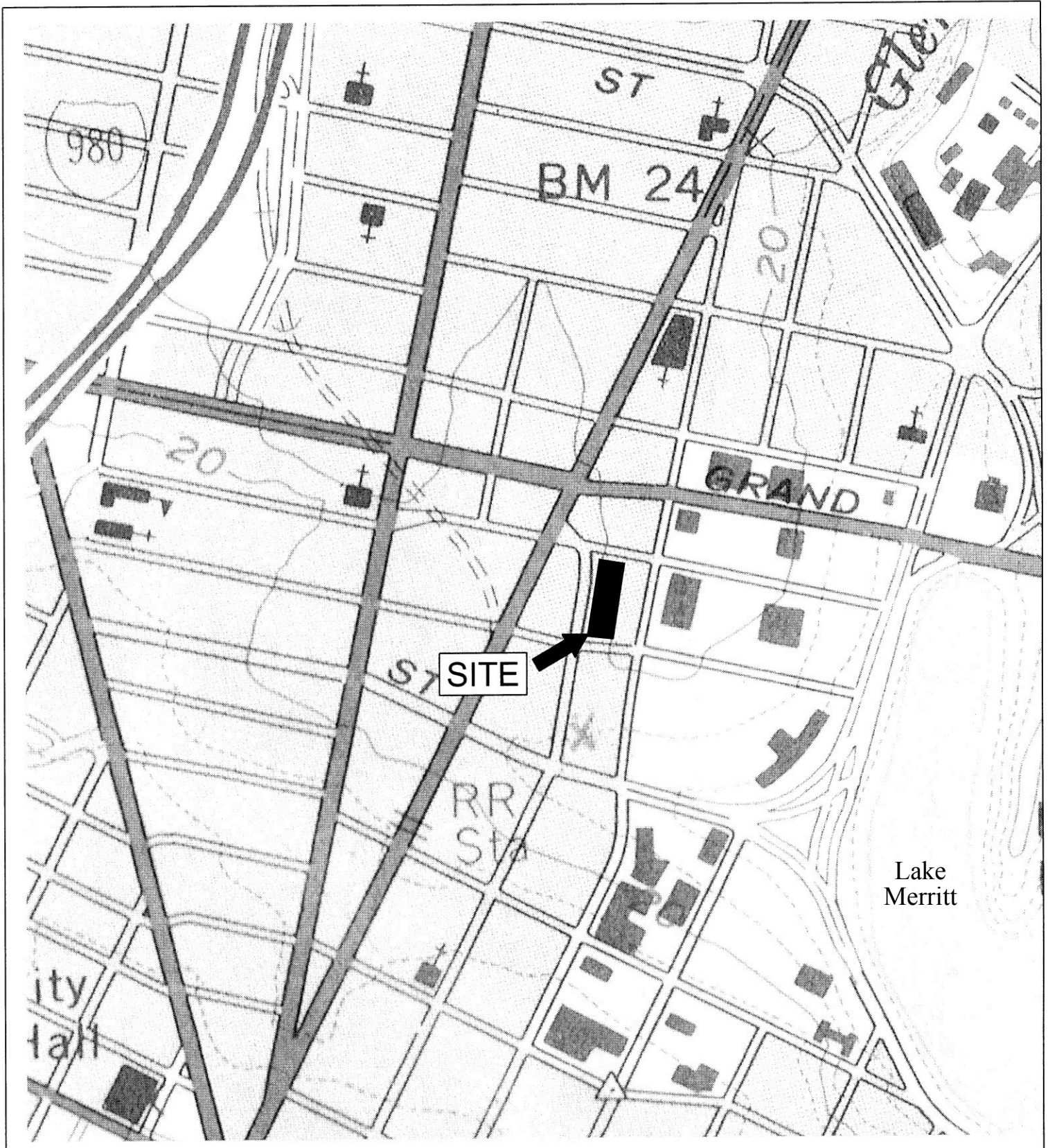
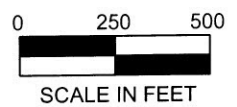


Figure 2
 Site Location Map Detail
 2100 Franklin Street
 Oakland, California



Base Map From:
 US Geological Survey, Oakland West,
 California, 7.5 minute Quadrangle,
 Revised 1993

RGA Environmental, Inc.
 1466 66th Street
 Emeryville, Ca 94608



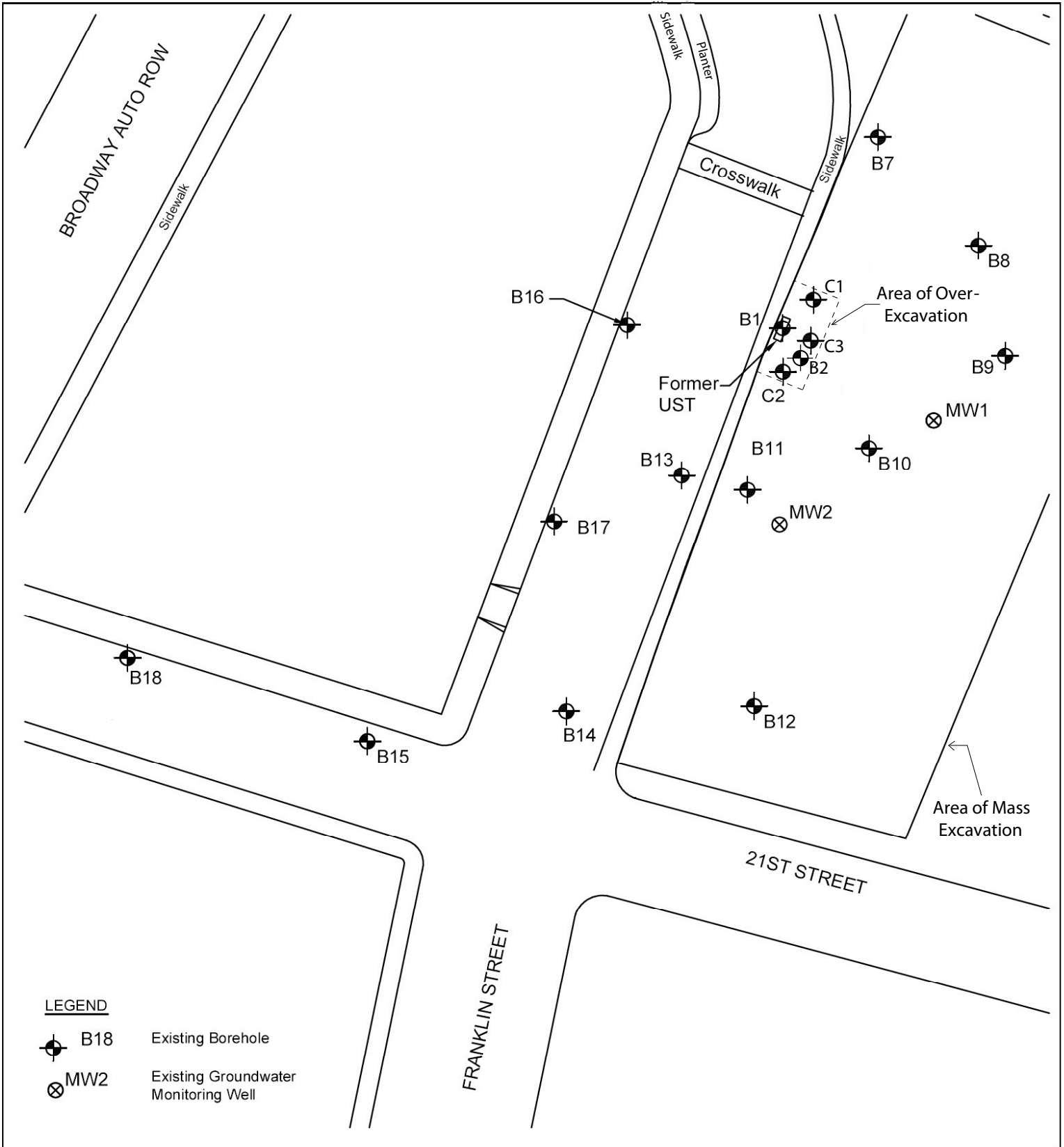


Figure 3
 Site Vicinity Map Detail Showing Borehole Locations
 2100 Franklin Street
 Oakland, California





Base Map from:
 Google Earth

RGA Environmental, Inc.
 1466 66th Street
 Emeryville, CA 94608



LEGEND

- B22  Borehole (Previous Investigation)
- B30  Borehole (Current Investigation)
- (1,500)@20' Bunker Oil Concentration in Groundwater (ug/L)
- - - - Bunker Oil in Groundwater Isoconcentration Contour (ug/L)
- . - . - Ground Surface Elevation Contour (Feet)

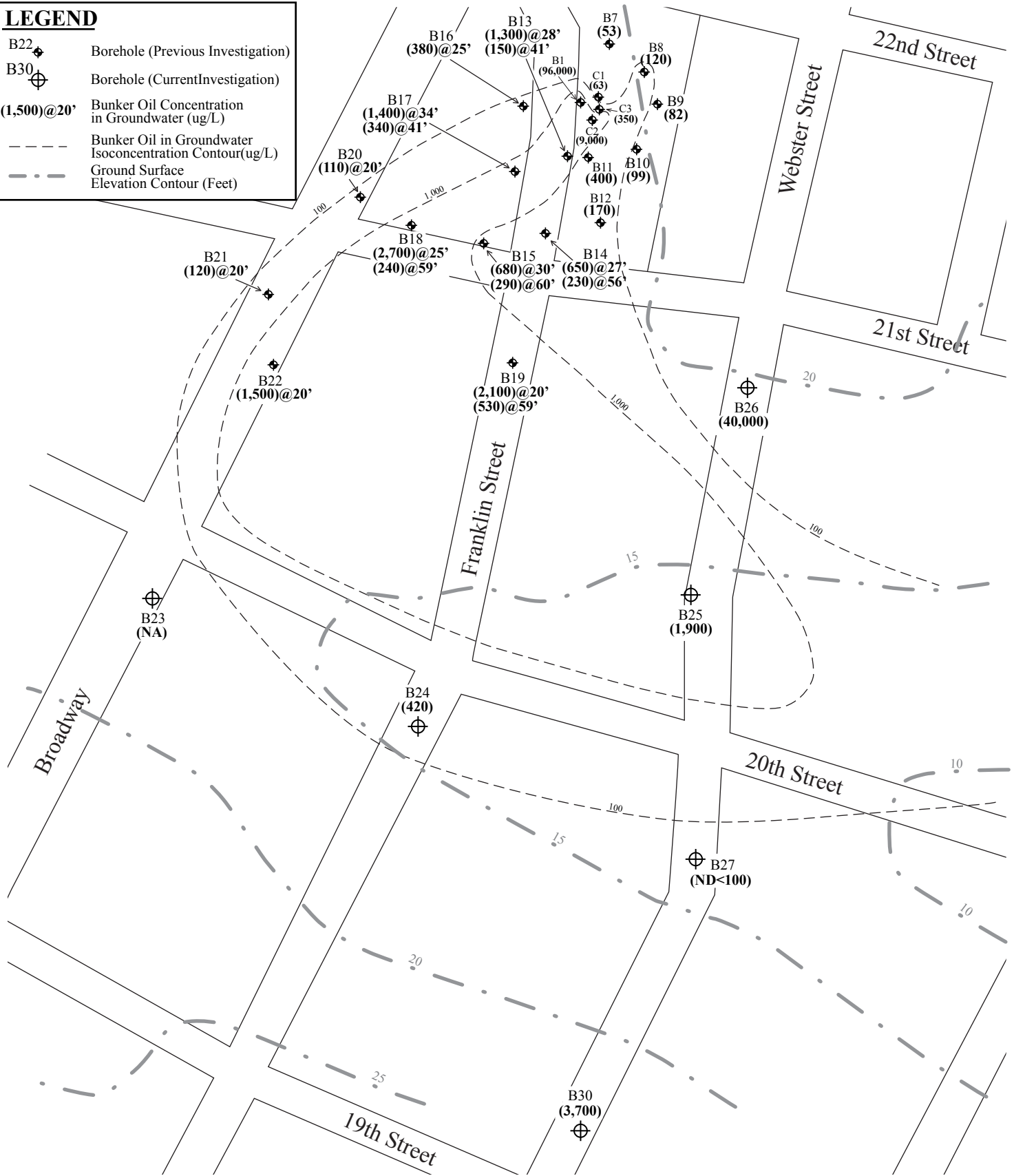


Figure 4
 Site Vicinity Map Detail Showing TPH-Bunker Oil in Shallow Groundwater
 2100 Franklin Street
 Oakland, California



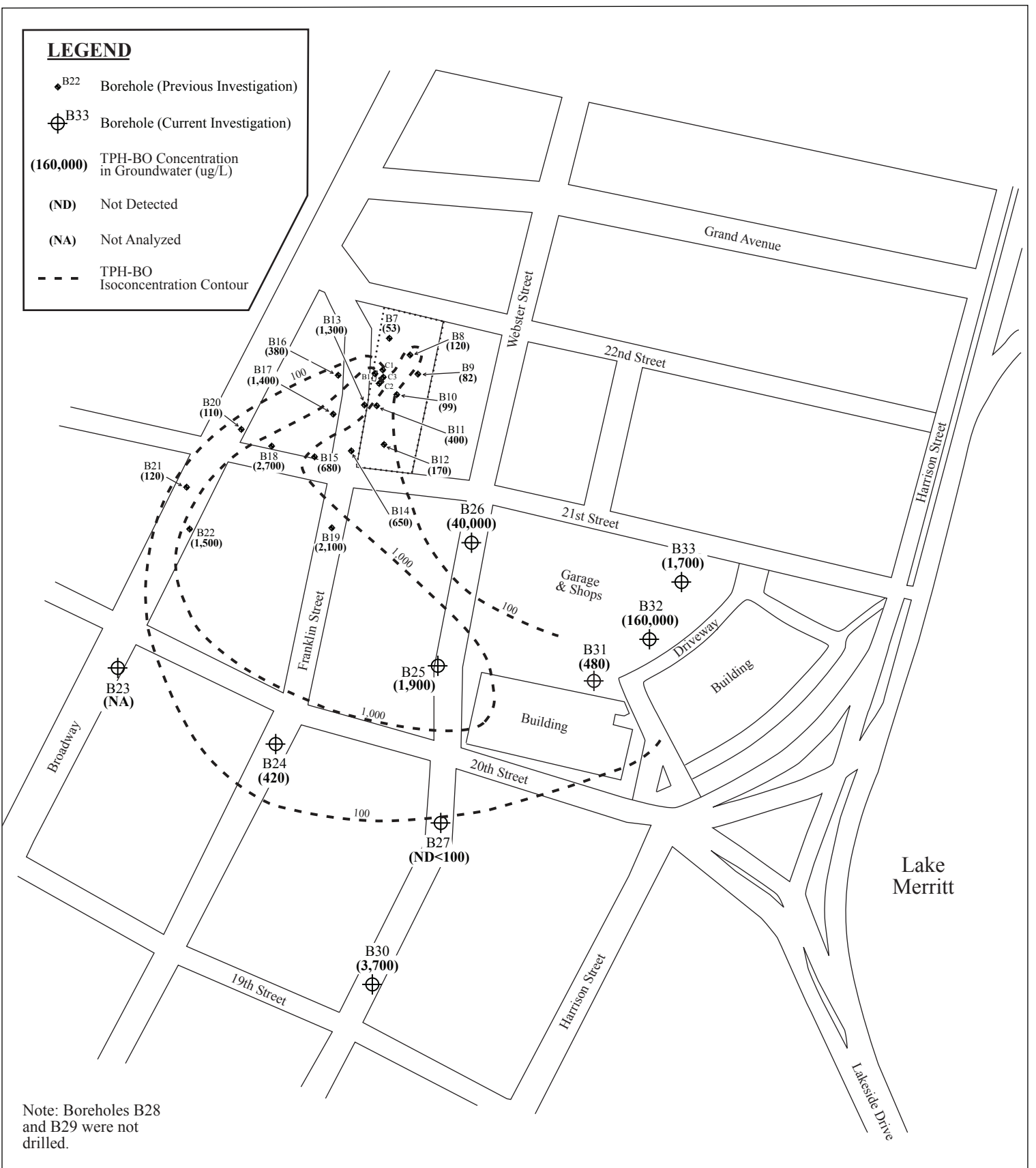
Base Map From:
 OaklandMaps.net, Parcel Info and US
 Geological Survey, Oakland West,
 California, 7.5-minute Quadrangle,
 Revised 1993

RGA Environmental, Inc.
 1466 66th Street
 Emeryville, CA 94608



LEGEND

- ◆ B22 Borehole (Previous Investigation)
- ⊕ B33 Borehole (Current Investigation)
- (160,000) TPH-BO Concentration in Groundwater (ug/L)
- (ND) Not Detected
- (NA) Not Analyzed
- - - TPH-BO Isoconcentration Contour



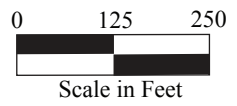
Note: Boreholes B28 and B29 were not drilled.

Figure 5
 Site Vicinity Map Showing TPH-Bunker Oil in Shallow Groundwater
 2100 Franklin Street
 Oakland, California



Base Map from:
 City of Oakland GIS, Parcel Info and
 Welton Becket & Associates
 Kaiser Center Site Plan,
 January 1958

RGA Environmental, Inc.
 1466 66th Street
 Emeryville, CA 94608



LEGEND

◆ B22 Borehole (Previous Investigation)

⊕ B33 Borehole (Current Investigation)

(23,000) MBTEX Concentrations in Groundwater (ug/L)

M = MTBE
 B = Benzene
 T = Toluene
 E = Ethylbenzene
 X = Xylenes (total)

(ND) Not Detected

(NA) Not Analyzed

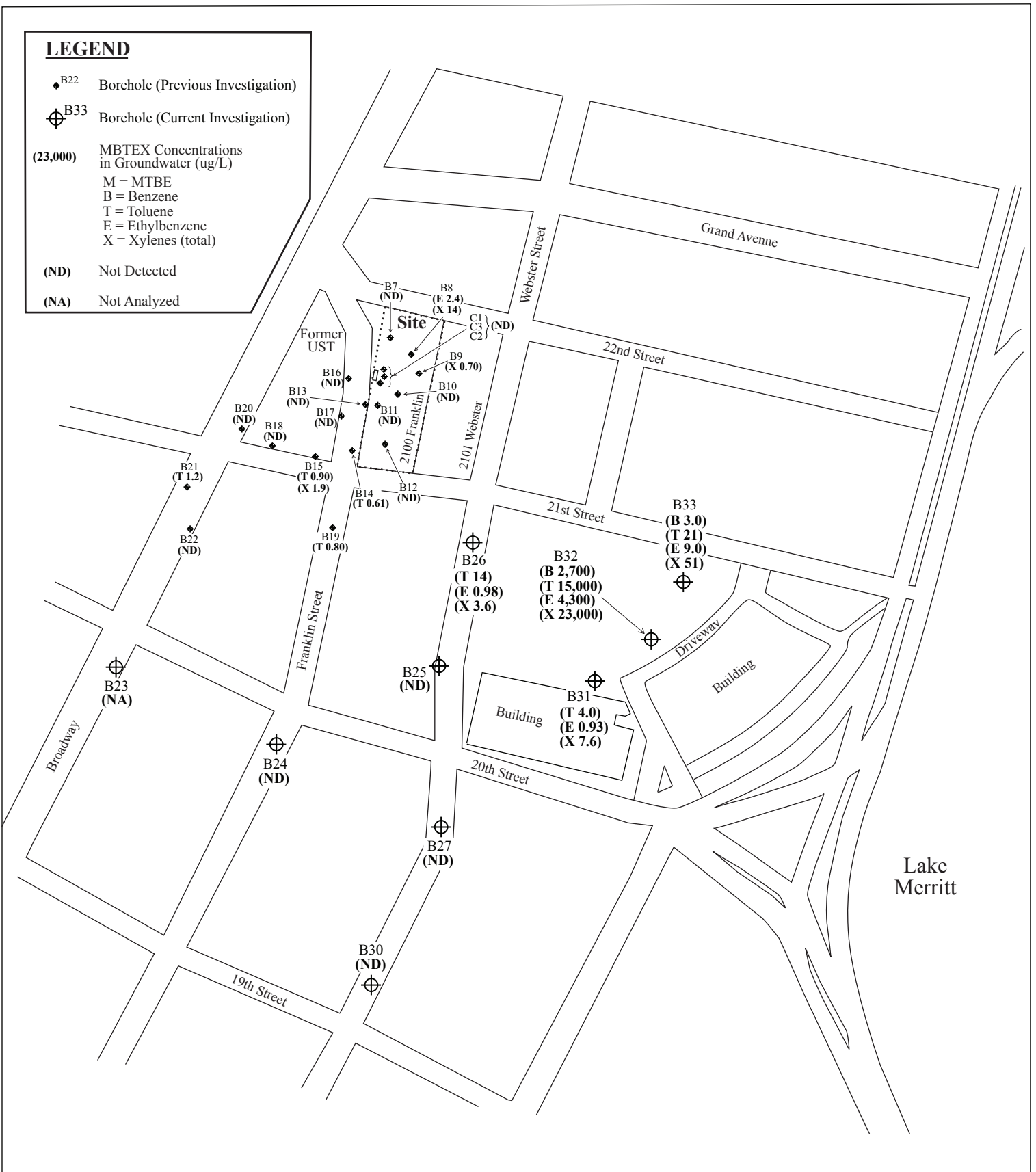
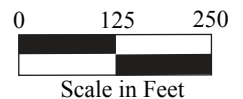


Figure 6
 Site Vicinity Map Showing Detected MBTEX Compounds in Shallow Groundwater
 2100 Franklin Street
 Oakland, California



Base Map from:
 City of Oakland GIS, Parcel Info and
 Welton Becket & Associates
 Kaiser Center Site Plan,
 January 1958

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 1466 66th Street
 Emeryville, CA 94608



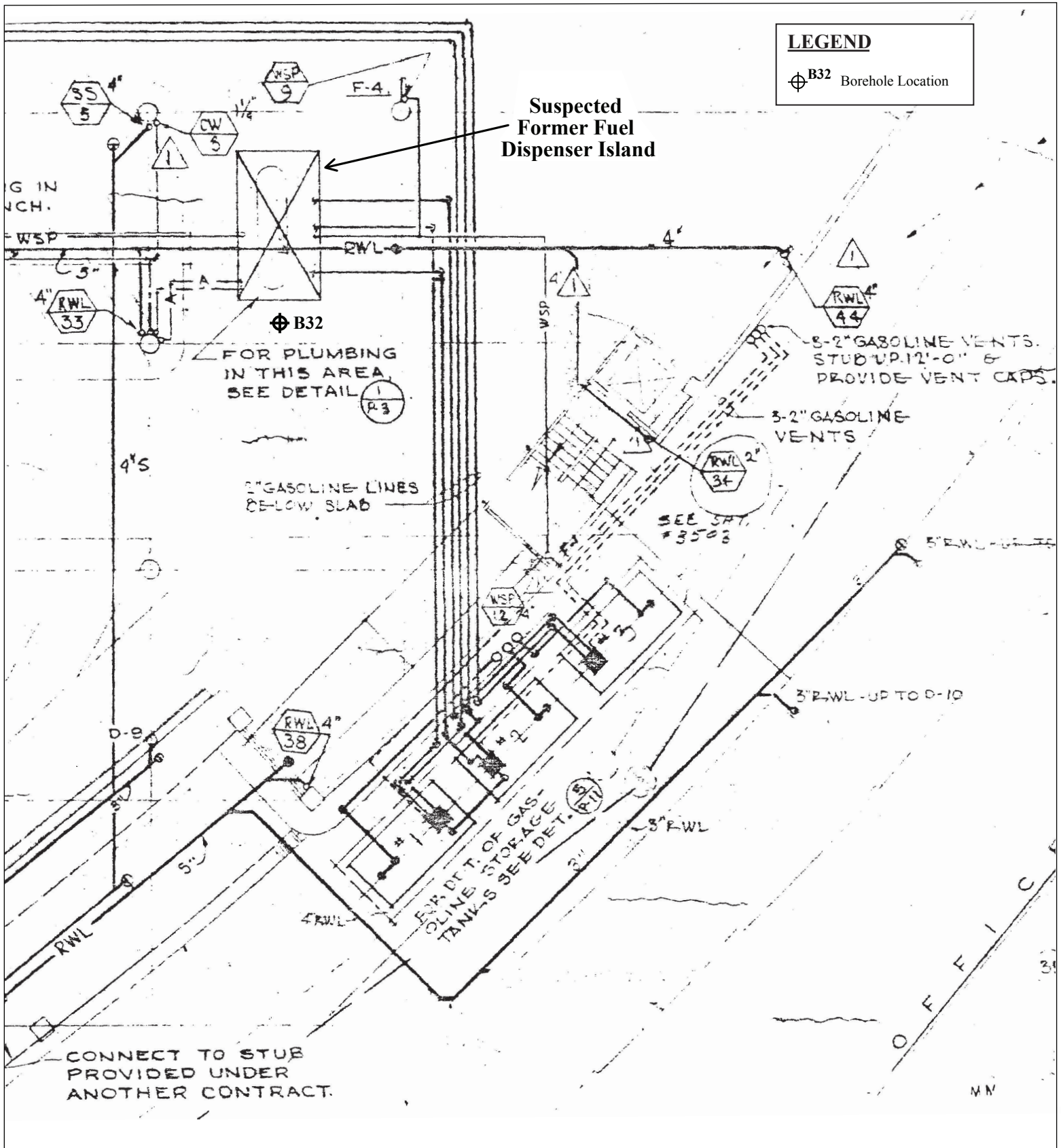


Figure 7
 Blueprint Detail of First Level of Parking Garage
 Showing B32 Drilling Location
 2100 Franklin Street
 Oakland, California



Base Map from:
 Welton Becket & Associates
 Kaiser Center Site Plan, Parking Garage & Shops, P-3-3
 July 1960

RGA Environmental, Inc.
 1466 66th Street
 Emeryville, CA 94608



BORING LOGS

RG ENVIRONMENTAL, INC.

BORING NO.: B23		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: East side of Broadway, 45 feet south of 20th Street				ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Sayphone		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600/Hand Auger				7/23/08 1320		7/23/08 1405	
COMPLETION DEPTH: 8.0 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: None		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	Concrete (2.0 ft.) underlain by 1.0 ft. of hard road base of silty fine sand.	FILL	No Well Constructed		0	Borehole hand augered from 2.0 to 3.0 ft. depth using a 3.5-inch O.D. hand auger. Road base too compacted to continue with hand auger beyond 3.0 feet.	
	3.0 to 8.0 ft. Brown fine sand (FILL); loose, dry. No Petroleum Hydrocarbon (PHC) odor.					Borehole continuously cored from 3.0 to 8.0 ft. using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with 5-foot long 1.5-inch O.D. transparent PVC sleeves.	
	7.0 ft. Color change to gray.						
10						Water not encountered during drilling.	
15						Drilling refusal encountered at 8.0 feet on BART station protective membrane. Borehole temporarily sealed with dry bentonite and asphalt patch pending BART inspection of proposed 4x4x8-ft. trench to expose protective membrane.	
20							
25							
30							

BORING NO.: B24		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: West side of Franklin Street, 45 feet south of 20th Street			ELEVATION AND DATUM: None				
DRILLING AGENCY: Vironex, Inc.		DRILLER: John		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				7/29/08 0830	7/29/08 1025		
COMPLETION DEPTH: 30.0 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 1.5 ft. Asphalt and road base.		No Well Constructed		0	Borehole hand augered from 0.0 to 3.0 ft. depth using a 3.5-inch O.D. hand auger. Hand auger refusal encountered on construction debris at 3.0 feet.	
	1.5 to 3.0 ft. Grayish brown silty sand (FILL); very loose, dry, with concrete and rock rubble and tree roots. No Petroleum Hydrocarbon (PHC) odor.				0		
	3.0 to 4.0 ft. Light brown clayey silt (FILL); stiff, dry, with orange mottling. No PHC odor.				0	Borehole continuously cored from 3.0 to 30.0 ft. using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with 5-foot long 1.5-inch O.D. transparent PVC sleeves.	
5	4.0 to 14.0 ft. Dark brown silty sand (FILL); loose, dry. No (PHC) odor.		FILL		0		
	8.0 ft. With brick fragments.				0		
10	10.0 ft. Moist, color change to gray.				0	3 to 5 ft. 30% recovery	
					0	5 to 10 ft. 90% recovery	
					12	10 to 15 ft. 80% recovery	
15	14.0 to 15.0 ft. Dark gray to black clay (FILL); soft, moist, with some wood construction debris. Slight oil odor.				15	15 to 20 ft. 90% recovery	
	15.0 to 18.0 ft. Dark gray to black clayey sand (SC); loose, wet. Slight oil odor.		SC		17	20 to 25 ft. 90% recovery	
	18.0 to 20.0 ft. Gray silty clay (CL); medium stiff, moist, with tree root fragments. Slight oil odor.		CL		0	25 to 30 ft. 70% recovery	
20	20.0 to 23.0 ft. Dark gray clayey sand (SC); medium dense, moist, with minor gravel to 0.25 in. diameter. No PHC odor.		SC		0	Water not encountered during drilling.	
	23.0 to 25.0 ft. Blue-gray clay (CL); stiff, moist, with minor coarse sand. No PHC odor.		CL		0	Borehole terminated at 30.0 ft. on 7/29/08. Borehole collapsed upon removal of drill rods. Hydropunch inserted into borehole to 30.0 ft. and retracted to 26.0 ft. to collect water sample B24-W; sample collected at 1105, no odor or sheen on sample. Borehole again collapsed upon withdrawal of Hydropunch, unable to take water level measurement.	
25	25.0 to 27.0 ft. Brown silty sand (SM); loose, moist. No PHC odor.		SM		0	Borehole grouted on 7/29/08 using neat cement grout.	
	27.0 to 30.0 ft. Light brown silt (ML); stiff, moist, with orange mottling. No PHC odor.		ML		0		
30							

BORING NO.: B25		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: West side of Franklin Street, 150 feet from B20			ELEVATION AND DATUM: None				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Sayphone		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				7/23/08 1015	7/23/08 1050		
COMPLETION DEPTH: 20.0 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 0.5 ft. Asphalt and road base.						
	0.5 to 2.5 ft. Brown fine sand (FILL); very loose, dry. No Petroleum Hydrocarbon (PHC) odor.		No Well Constructed		0	Borehole hand augered from 0.0 to 2.5 ft. depth using a 3.5-inch O.D. hand auger. Hand auger refusal encountered on construction debris at 2.5 feet.	
	2.5 to 7.0 ft. Construction debris (FILL). No (PHC) odor.	FILL					
5					0	Borehole continuously cored from 2.5 to 20.0 ft. using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with 5-foot long 1.5-inch O.D. transparent PVC sleeves.	
	7.0 to 14.0 ft. Olive-green silty clay (CL); stiff, moist, with black mottling. No PHC odor. 8.5 ft. Color change to blue-gray, with orange mottling, and minor coarse sand.	CL			0	2.5 to 5 ft. 10% recovery 5 to 10 ft. 100% recovery	
10					0	10 to 15 ft. 100% recovery	
	14.0 to 15.0 ft. Brown silty sand (SM); medium dense, moist. No PHC odor.	SM					
15							
	15.0 to 19.0 ft. Brown gravelly sand (SW); loose, wet, with gravel to 0.25 in. diameter. No PHC odor.	SW				15 to 20 ft. 100% recovery	
					0		
	19.0 to 20.0 ft. Olive-green silty sand (SM); medium dense, moist, with black and orange mottling. No PHC odor.	SM				Water not encountered during drilling.	
20							
						Borehole terminated at 20.0 ft. on 7/23/08. Temporary 1-in. diameter slotted PVC casing placed in borehole. Water level measured at 12.5 ft. depth at 1050. Sample B25-W collected at 1055; no odor or sheen on sample.	
25						Borehole grouted on 7/23/08 using neat cement grout.	
30							

RG ENVIRONMENTAL, INC.

BORING NO.: B26		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: 50 feet south of 21st Street on Webster Street			ELEVATION AND DATUM: None				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Sayphone		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe 6600				7/23/08 0730	7/23/08 0840		
COMPLETION DEPTH: 25.0 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 0.5 ft. Asphalt and road base.						
	0.5 to 3.0 ft. Brown fine sand (FILL); very loose, dry. No Petroleum Hydrocarbon (PHC) odor.		No Well Constructed		0	Borehole hand augered from 0.0 to 3.0 ft. depth using a 3.5-inch O.D. hand auger. Hand auger refusal encountered on construction debris at 3.0 feet.	
	3.0 to 6.0 ft. Brown sandy clay (FILL); stiff, moist, with brick, rubber, and glass rubble. No (PHC) odor.	FILL			0	Borehole continuously cored from 3.0 to 25.0 ft. using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with 5-foot long 1.5-inch O.D. transparent PVC sleeves.	
5	6.0 to 12.0 ft. Brown fine sand (SP); loose, moist. No (PHC) odor.				0		
	11.0 ft. Dark brown discoloration, slight PHC odor	SP			15	3 to 5 ft. 10% recovery	
10	12.0 to 15.0 ft. Light gray silty clay (CL); stiff, moist, with orange mottling No PHC odor.				0	5 to 10 ft. 100% recovery	
	15.0 to 19.5 ft. Brown fine sand (SP); loose, moist. No PHC odor.	CL			0	10 to 15 ft. 100% recovery	
15	19.5 to 23.0 ft. Light gray-brown clay (CL); stiff, moist, with orange mottling. No PHC odor.				0	15 to 20 ft. 20% recovery	
	23.0 to 25.0 ft. Brown silty sand (SM); loose, wet, with fine to coarse sand, and gravel to 0.25 in. diameter No PHC odor.	SP			0	20 to 25 ft. 100% recovery	
20		CL			0		
		SM			0	Water not encountered during drilling.	
25							
30						Borehole terminated at 25.0 ft. on 7/23/08. Borehole collapsed upon removal of drill rods. Hydro-punch inserted into borehole to 27.0 ft. and retracted to 22.0 ft. to collect water sample B26-W; sample collected at 0855, no odor or sheen on sample. Water at 17.4 ft. depth following Hydro-punch rod removal, at 0955. Borehole grouted on 7/23/08 using neat cement grout.	

BORING NO.: B27		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: East side of Webster Street, 175 feet north of B30				ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Jeremy		DATE & TIME STARTED: 8/28/08 0830		DATE & TIME FINISHED: 8/28/08 0935	
DRILLING EQUIPMENT: Geoprobe 6600				LOGGED BY: MLD		CHECKED BY:	
COMPLETION DEPTH: 20.0 Feet		BEDROCK DEPTH: Not Encountered					
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water					
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 1.5 ft. Asphalt and road base.		No Well Constructed		0	Borehole hand augered from 0.0 to 8.0 ft. depth using a 3.5-inch O.D. hand auger.	
5	1.5 to 12.0 ft. Brown fine sand (SP); very loose, moist. No Petroleum Hydrocarbon (PHC) odor.				0	Borehole continuously cored from 8.0 to 20.0 ft. using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with 5-foot long 1.5-inch O.D. transparent PVC sleeves.	
	5.0 ft. With some gravel to 0.25-inch diameter.	SP			0	8 to 10 ft. 100% recovery	
10					0	10 to 15 ft. 100% recovery	
	12.0 to 13.0 ft. Grayish brown clayey silty sand (SM); stiff, wet. No PHC odor.	SM			0	15 to 20 ft. 100% recovery	
	13.0 to 14.0 ft. Brown fine sand (SP); loose, wet, with minor silt. No PHC odor.	SP			0	Water not encountered during drilling.	
15	14.0 to 15.0 ft. Grayish brown silty sand (SM); loose, wet, with orange mottling. No PHC odor.	SM			0	Borehole terminated at 20.0 ft. on 8/28/08. Temporary 1-in. diameter slotted PVC casing placed in borehole, and water level measured at 12.4 ft. at 0955, and at 12.3 ft. at 1010. Water sample B27-W collected at 1010; no odor or sheen on sample.	
	15.0 to 18.5 ft. Brown fine sand (SP); loose, wet. No PHC odor.	SP			0	Borehole grouted on 8/28/08 using neat cement grout.	
20	18.5 to 20.5 ft. Grayish brown silty sand (SM); loose, wet. No PHC odor.	SM					
25							
30							

RG ENVIRONMENTAL, INC.

BORING NO.: B30		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: East side of Webster Street, 78 feet north of 19th Street				ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Jeremy		DATE & TIME STARTED:		DATE & TIME FINISHED:	
DRILLING EQUIPMENT: Geoprobe 6600				8/28/08 1100		8/28/08 1145	
COMPLETION DEPTH: 20.0 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: 14.0 Feet		NO. OF SAMPLES: 1 Water		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 1.5 ft. Asphalt and road base.		No Well Constructed		0	Borehole hand augered from 0.0 to 5.0 ft. depth using a 3.5-inch O.D. hand auger.	
5	1.5 to 8.0 ft. Grayish brown silty sand (SM); loose, moist, with orange mottling. No Petroleum Hydrocarbon (PHC) odor.	SM			0	Borehole continuously cored from 5.0 to 20.0 ft. using a 5-foot long 2-inch O.D. Geoprobe Macrocore barrel sampler lined with 5-foot long 1.5-inch O.D. transparent PVC sleeves.	
10	8.0 to 12.0 ft. Grayish brown clayey sand (SC); medium dense, moist. No PHC odor.	SC			0	5 to 10 ft. 70% recovery	
15	12.0 to 17.5 ft. Brown fine sand (SP); loose, wet. Water discolored by sewage. No PHC odor. 13.5 ft. Piece of old clay pipe present. Saturated at 14.0 ft.	SP			0	10 to 15 ft. 60% recovery	
20	17.5 to 20.0 ft. Grayish brown silty sand (SM); medium dense, moist. No PHC odor.	SM			0	15 to 20 ft. 90% recovery	
25						Water encountered during drilling at 14.0 feet depth.	
30						Borehole terminated at 20.0 ft. on 8/28/08. Temporary 1-in. diameter slotted PVC casing placed in borehole, and sample B30-W collected at 1150; no odor or sheen on sample. Water subsequently measured at 14.4 ft. depth at 1155.	
						Borehole grouted on 8/28/08 using neat cement grout.	

RG ENVIRONMENTAL, INC.

BORING NO.: B31		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: Base of walkway up ramp left of garage entrance			ELEVATION AND DATUM: None				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Brian/Manuel		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe Badger 540MT				11/15/08 0845	11/15/08 0930		
COMPLETION DEPTH: 13.5 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:		CHECKED BY:	
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 0.5 ft. Concrete slab.		No Well Constructed			Borehole continuously cored from 0.5 to 13.5 ft. using a 3-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler lined with 2.8-foot long 1.5-inch O.D. transparent PVC tubes. 0.5 to 3 ft. 2.0 ft. recovery 3 to 6 ft. 2.6 ft. recovery 6 to 9 ft. 2.4 ft. recovery 9 to 12 ft. 2.8 ft. recovery 12 to 13.5 ft. 1.1 ft. recovery Drilling refusal at 13.5 ft. Water not encountered during drilling.	
	0.5 to 2.5 ft. Dark brown clayey silt (ML); medium stiff, dry. No Petroleum Hydrocarbon (PHC) odor.	ML					
	2.5 to 4.0 ft. Dark grayish-brown clay (CL); stiff, moist. No PHC odor.	CL					
5	3.0 ft. Color change to brown, with black mottling.						
	4.0 to 6.0 ft. Orange-brown gravelly sand (SW); loose, moist, with gravel to 0.25 in. diameter. No PHC odor.	SW					
	6.0 to 9.0 ft. Grayish-brown silty clay (CL); medium stiff, moist, with orange mottling. No PHC odor.	CL					
	9.0 to 10.0 ft. Dark brown clayey sand (SC); medium dense, moist. No PHC odor.	SC					
10	10.0 to 13.0 ft. Grayish-brown silty clay (CL); medium stiff, moist. No PHC odor.	CL					
	13.0 to 13.5 ft. Orange-brown silty gravelly sand (SW); very dense, dry, with gravel to 1-in. diameter. No PHC odor.	SW					
15						Borehole terminated at 13.5 ft. on 11/15/08. Temporary 1-in. diameter slotted PVC casing placed in borehole. No water in borehole. PVC casing removed from borehole, and borehole enlarged from 0 to 6 ft. depth using a 3.5-inch O.D. hand auger Temporary 1-in. diameter slotted PVC casing again placed in borehole. Water measured in borehole at 12.1 ft depth at 1345, and at 8.1 ft. at 1400. Water sample B31-W collected at 1455; no odor or sheen on sample.	
20						Borehole grouted on 11/15/08 using tremie pipe and neat cement grout.	
25							
30							

RG ENVIRONMENTAL, INC.

BORING NO.: B32		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: Across garage parking office			ELEVATION AND DATUM: None				
DRILLING AGENCY: Vironex, Inc.		DRILLER: Brian/Manuel		DATE & TIME STARTED:	DATE & TIME FINISHED:		
DRILLING EQUIPMENT: Geoprobe Badger 540MT				11/15/08 1030	11/15/08 1115		
COMPLETION DEPTH: 16.0 Feet		BEDROCK DEPTH: Not Encountered		LOGGED BY:	CHECKED BY:		
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water, 5 Soil		MLD			
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
	0.0 to 0.5 ft. Concrete slab.						
	0.5 to 3.0 ft. Brown silty clay (CL); stiff, moist. Bluish green discoloration and strong Petroleum Hydrocarbon (PHC) odor from 2.0 to 2.5 ft.	CL	No Well Constructed		2065	Borehole continuously cored from 0.5 to 16.0 ft. using a 3-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler lined with 2.8-foot long 1.5-inch O.D. transparent PVC tubes.	
5	3.0 to 8.0 ft. Orange-brown silty sand (SM); medium dense, moist. Very strong PHC odor. 3.0 to 3.5 ft. Bluish green staining and trace gravel to 0.5-in. diameter.	SM	B32-2.5		12	0.5 to 3 ft. 2.7 ft. recovery 3 to 6 ft. 2.8 ft. recovery 6 to 9 ft. 2.4 ft. recovery	
10	8.0 to 12.0 ft. Bluish gray clayey silt (ML); medium stiff, moist, with orange mottling. Strong PHC odor.	ML	B32-5.5		19	9 to 12 ft. 2.5 ft. recovery 12 to 15 ft. 2.8 ft. recovery 15 to 16 ft. 1.0 ft. recovery	
	11.5 to 12.0 ft. With gravel to 0.75-in. diameter.		B32-8.5		8	Drilling refusal at 16.0 ft.	
15	12.0 to 16.0 ft. Orange-brown clayey gravelly sand (SW); medium dense, moist, with bluish green staining, and gravel to 0.5-in. diameter. Strong PHC odor.	SW	B32-11.5		90	Water not encountered during drilling.	
20						Borehole terminated at 16.0 ft. on 11/15/08. Temporary 1-in. diameter slotted PVC casing placed in borehole. No water in borehole. PVC casing removed from borehole, and borehole enlarged from 0 to 14.5 ft. depth using a 3.5-inch O.D. hand auger Temporary 1-in. diameter slotted PVC casing again placed in borehole. Water measured in borehole at 12.3 ft depth at 1620, and at 11.9 ft. at 1630.	
25						Water sample B32-W collected at 1640; strong PHC odor and sheen on sample.	
30						Borehole grouted on 11/15/08 using tremie pipe and neat cement grout.	

BORING NO.: B33		PROJECT NO.: 0387		PROJECT NAME: 2100 Franklin Street Investigation, Oakland			
BORING LOCATION: East side of parking garage				ELEVATION AND DATUM: None			
DRILLING AGENCY: Vironex, Inc.		DRILLER: Brian/Manuel		DATE & TIME STARTED: 11/15/08 1220		DATE & TIME FINISHED: 11/15/08 1350	
DRILLING EQUIPMENT: Geoprobe Badger 540MT				LOGGED BY: MLD		CHECKED BY:	
COMPLETION DEPTH: 14.0 Feet		BEDROCK DEPTH: Not Encountered					
FIRST WATER DEPTH: Not Encountered		NO. OF SAMPLES: 1 Water					
DEPTH (FT.)	DESCRIPTION	GRAPHIC COLUMN	WELL CONSTRUCTION LOG	BLOW COUNT PER 6"	PID	REMARKS	
5	0.0 to 0.5 ft. Concrete slab.		No Well Constructed			Borehole continuously cored from 0.5 to 14.0 ft. using a 3-foot long 2.0-inch O.D. Geoprobe Macrocore barrel sampler lined with 2.8-foot long 1.5-inch O.D. transparent PVC tubes. 0.5 to 3 ft. 2.4 ft. recovery 3 to 6 ft. 2.7 ft. recovery 6 to 9 ft. 2.5 ft. recovery 9 to 12 ft. 2.7 ft. recovery 12 to 14 ft. 2.0 ft. recovery Drilling refusal at 14.0 ft. Water not encountered during drilling.	
	0.5 to 1.5 ft. Dark brown gravelly clayey sand (SC); medium dense, moist, with gravel to 0.5-in. diameter. No Petroleum Hydrocarbon (PHC) odor.	SC			0		
	1.5 to 14.0 ft. Grayish brown silty clay (CL); stiff, moist, with orange mottling. No PHC odor.	CL			0		
	3.0 to 3.5 ft. With sand and gravel to 0.25-in. diameter.				0		
					0		
10							
15						Borehole terminated at 14.0 ft. on 11/15/08. Temporary 1-in. diameter slotted PVC casing placed in borehole. No water in borehole.	
20						PVC casing removed from borehole, and borehole enlarged from 0 to 12.0 ft. depth using a 3.5-inch O.D. hand auger Temporary 1-in. diameter slotted PVC casing again placed in borehole to 14.0 ft. (original macrocore borehole to 14.0 ft. stayed open). Water measured in borehole at 12.8 ft depth at 1520, and at 12.5 ft. at 1540.	
25						Water sample B33-W collected at 1550; no PHC odor or sheen on sample.	
30						Borehole grouted on 11/15/08 using tremie pipe and neat cement grout.	

**NON-HAZARDOUS WASTE
MANIFEST**

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

2. Page 1 of 1

3. Document Number

6195

4. Generator's Name and Mailing Address

2100 Franklin Ave

OAKLAND CA

Generator's Phone (510) 658-4363

PO 0387

5. Transporter Company Name

6. US EPA ID Number

7. Transporter Phone

CLEARWATER ENVIRONMENTAL

CAR000007013

(510) 476-1740

8. Designated Facility Name and Site Address

9. US EPA ID Number

10. Facility's Phone

ALVISO INDEPENDENT OIL
5002 ARCHER STREET
ALVISO, CA 95002

CAL000161743

(510) 476-1740

11. Waste Shipping Name and Description

12. Containers

13. Total Quantity

14. Unit Wt/Vol

a. Non-Hazardous waste - solid

002 dm

608

P

b.

15. Special Handling Instructions and Additional Information

Handling Codes for Wastes Listed Above

Wear PPE
Emergency Contact
(510) 476-1740
Attn: Kirk Hayward

11a.

11b.

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to state or federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

Signature

X MICHAEL DESCHENES

Michael Deschenes

Month Day Year

17. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

William Clark

William Clark

Month Day Year

11 18 09

18. Discrepancy Indication Space

19. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 18.

Printed/Typed Name

Signature

Charles Seaton

Charles Seaton

Month Day Year

11 19 05

GENERATOR

TRANSPORTER

FACILITY

LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

- **McC Campbell W/O # 0807577 B25 and B26 Groundwater**
- **McC Campbell W/O # 0807704 B24 Groundwater**
- **McC Campbell W/O # 0808839 B27 and B30 Groundwater**
- **McC Campbell W/O # 0811519 B31, B32 and B33 Groundwater**



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #BRT19617/0387; Brandywine Realty Trust	Date Sampled: 07/23/08
	Client Contact: Paul King	Date Received: 07/24/08
	Client P.O.:	Date Reported: 07/31/08
		Date Completed: 07/30/08

WorkOrder: 0807577

August 01, 2008

Dear Paul:

Enclosed within are:

- 1) The results of the 2 analyzed samples from your project: **#BRT19617/0387; Brandywine Real**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

CHAIN OF CUSTODY RECORD

PROJECT NUMBER: BRT 10387 BRT19617/0387		PROJECT NAME: BRANDYWINE REALTY TRUST 2100 Franklin Street, Oakland			NUMBER OF CONTAINERS	ANALYSIS(ES): TPH MWH Range (G.D. 80 MO) MISTEX by 80215	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) MICHAEL DESCHENES								
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION				
+25 +50 B25W	7/23/08	10:54	WATER		7	X X		ICE Normal Turn Around
B26W	7/23/08	08:55	WATER		7	X X		" " " "
ICE: 4.8 GOOD CONDITION <input checked="" type="checkbox"/> APPROPRIATE CONTAINERS HEAD SPACE ABSENT <input checked="" type="checkbox"/> PRESERVED IN LAB DECHLORINATED IN LAB <input checked="" type="checkbox"/> PRESERVATION <input checked="" type="checkbox"/> VOAS <input type="checkbox"/> O&G <input type="checkbox"/> METALS <input type="checkbox"/> OTHER <input type="checkbox"/>								
RELINQUISHED BY: (SIGNATURE) <i>Michael Deschenes</i>	DATE 7/24/08	TIME 12:27	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	TOTAL NO. OF SAMPLES (THIS SHEET)	2	LABORATORY: McCampbell Analytical		
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE 7/24/08	TIME 12:00	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	TOTAL NO. OF CONTAINERS (THIS SHEET)	14	LABORATORY CONTACT: Angela Rydelius LABORATORY PHONE NUMBER: (877) 252-9262		
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO				
Results and billing to: P&D Environmental, Inc. lab@pdenviro.com			REMARKS: All samples ^{containers} are preserved with Hydrochloric Acid.					

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0807577

ClientCode: RGAE

WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:

Paul King
RGA Environmental
1466 66th Street
Emeryville, CA 94608

Email: paul.king@rgaenv.com; pdking0000@a
cc:
PO:
ProjectNo: #BRT19617/0387; Brandywine Realty
Trust

(510) 658-6916 FAX (510) 834-0152

Bill to:

Lisa Devito
RGA Environmental
1466 66th Street
Emeryville, CA 94608

lisa.devito@rgaenv.com

Requested TAT: 5 days

Date Received: 07/24/2008

Date Printed: 08/01/2008

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0807577-001	B25W	Water	7/23/2008 10:54	<input type="checkbox"/>	B	A										
0807577-002	B26W	Water	7/23/2008 8:55	<input type="checkbox"/>	B	A										

Test Legend:

1	G-MBTEX_W	2	TPH(DMO)_W	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **RGA Environmental** Date and Time Received: **07/24/08 2:59:35 PM**
Project Name: **#BRT19617/0387; Brandywine Realty Trust** Checklist completed and reviewed by: **Ana Venegas**
WorkOrder N°: **0807577** Matrix Water Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
Chain of custody signed when relinquished and received? Yes No
Chain of custody agrees with sample labels? Yes No
Sample IDs noted by Client on COC? Yes No
Date and Time of collection noted by Client on COC? Yes No
Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
Shipping container/cooler in good condition? Yes No
Samples in proper containers/bottles? Yes No
Sample containers intact? Yes No
Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
Container/Temp Blank temperature Cooler Temp: 4.8°C NA
Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
Sample labels checked for correct preservation? Yes No
TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
Samples Received on Ice? Yes No
(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted: Date contacted: Contacted by:

Comments:

**McC Campbell Analytical, Inc.**

"When Quality Counts"

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Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #BRT19617/0387; Brandywine Realty Trust	Date Sampled: 07/23/08
	Client Contact: Paul King	Date Received: 07/24/08
	Client P.O.:	Date Extracted: 07/24/08-07/25/08
		Date Analyzed 07/24/08-07/25/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0807577

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001B	B25W	W	ND,b1	ND	ND	ND	ND	ND	1	99
002B	B26W	W	190,d2,b6,b1	ND	ND	14	0.98	3.6	1	98

Reporting Limit for DF =1; ND means not detected at or	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- b1) aqueous sample that contains greater than ~1 vol. % sediment
- b6) lighter than water immiscible sheen/product is present
- d2) heavier gasoline range compounds are significant (aged gasoline?)



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 Telephone: 877-252-9262 Fax: 925-252-9269

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #BRT19617/0387; Brandywine Realty Trust	Date Sampled: 07/23/08
	Client Contact: Paul King	Date Received: 07/24/08
	Client P.O.:	Date Analyzed: 07/29/08-07/30/08

Total Extractable Petroleum Hydrocarbons*

Extraction method SW3510C

Analytical methods SW8015C

Work Order: 0807577

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	TPH-Bunker Oil (C10-C36)	DF	% SS
001A	B25W	W	1900,e10,b1	620	1900	1	96
002A	B26W	W	37,000,e10,b6,b1	15,000	40,000	10	112

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	50	250	100	µg/L
	S	NA	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment
 b6) lighter than water immiscible sheen/product is present
 e10) fuel oil



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37165

WorkOrder 0807577

EPA Method SW8021B/8015Cm		Extraction SW5030B							Spiked Sample ID: 0807572-003			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	104	94.8	9.13	99.7	88.5	11.9	70 - 130	20	70 - 130	20
MTBE	ND	10	110	104	5.65	85.6	81.8	4.56	70 - 130	20	70 - 130	20
Benzene	ND	10	100	97.5	2.87	84.3	88.7	5.05	70 - 130	20	70 - 130	20
Toluene	ND	10	99.4	96.8	2.66	84.4	91.9	8.52	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	104	102	1.98	84.4	88.9	5.10	70 - 130	20	70 - 130	20
Xylenes	ND	30	115	113	2.35	80.4	83.8	4.21	70 - 130	20	70 - 130	20
%SS:	101	10	95	94	0.952	100	105	4.91	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 37165 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807577-001B	07/23/08 10:54 AM	07/24/08	07/24/08 10:47 PM	0807577-002B	07/23/08 8:55 AM	07/25/08	07/25/08 7:23 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37144

WorkOrder 0807577

EPA Method SW8015C		Extraction SW3510C							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	99.8	98	1.84	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	108	106	2.35	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 37144 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807577-001A	07/23/08 10:54 AM	07/24/08	07/29/08 7:42 AM	0807577-002A	07/23/08 8:55 AM	07/24/08	07/30/08 9:56 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #BRT 19617/0387; Brandywine Realty Trust	Date Sampled: 07/29/08
	Client Contact: Paul King	Date Received: 07/30/08
	Client P.O.:	Date Reported: 08/04/08
		Date Completed: 08/01/08

WorkOrder: 0807704

August 04, 2008

Dear Paul:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#BRT 19617/0387; Brandywine Real**
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

CHAIN OF CUSTODY RECORD

PROJECT NUMBER: BRT 19617/0387		PROJECT NAME: BRANDYWINE REALTY TRUST 2100 FRANKLIN STREET OAKLAND			NUMBER OF CONTAINERS 7	ANALYSIS(ES): TPH, METYRANGE (ED, B, MA) MBTEX by ROSLIB	PRESERVATIVE ICE	REMARKS NORMAL TURNAROUND
SAMPLED BY: (PRINTED AND SIGNATURE) MICHAEL DESCHENES <i>Michael Deschenes</i>								
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION				
+25 B24W	7/29/08	1105	WATER					
					ICE# 2.2 GOOD CONDITION <input checked="" type="checkbox"/> APPROPRIATE CONTAINERS <input checked="" type="checkbox"/> HEAD SPACE ABSENT <input checked="" type="checkbox"/> PRESERVED IN LAB <input checked="" type="checkbox"/> DECHLORINATED IN LAB <input checked="" type="checkbox"/> PRESERVATION <input type="checkbox"/> VOIS <input type="checkbox"/> O&B <input type="checkbox"/> METALS <input type="checkbox"/> OTHER <input type="checkbox"/>			
RELINQUISHED BY: (SIGNATURE) <i>Michael Deschenes</i>		DATE 7/29/08	TIME 1:20	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		TOTAL NO. OF SAMPLES (THIS SHIPMENT) 1	LABORATORY: McCAMPBELL ANALYTICAL	
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>		DATE 7/30/08	TIME 1:15	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 7	LABORATORY CONTACT: ANGELA R. DELINS LABORATORY PHONE NUMBER: (877) 252-9262	
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO		
Results and billing to: P&D Environmental, Inc. lab@pdenviro.com				REMARKS: ALL SAMPLE CONTAINERS ARE PRESERVED WITH HYDROCHLORIC ACID.				

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0807704

ClientCode: PDEO

WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:		Bill to:	Requested TAT: 5 days
Paul King	Email: lab@pdenviro.com	Accounts Payable	
P & D Environmental	cc:	P & D Environmental	Date Received: 07/30/2008
55 Santa Clara, Ste.240	PO:	55 Santa Clara, Ste.240	Date Printed: 07/30/2008
Oakland, CA 94610	ProjectNo: #BRT 19617/0387; Brandywine Realty Trust	Oakland, CA 94610	
(510) 658-6916 FAX 510-834-0152			

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0807704-001	B24W	Water	7/29/2008 11:05	<input type="checkbox"/>	B	A											

Test Legend:

1	G-MBTEX_W	2	TPH(DMO)_W	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Ana Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **P & D Environmental** Date and Time Received: **7/30/2008 1:42:22 PM**
 Project Name: **#BRT 19617/0387; Brandywine Realty Trust** Checklist completed and reviewed by: **Ana Venegas**
 WorkOrder N°: **0807704** Matrix Water Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 2.2°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA

* NOTE: If the "No" box is checked, see comments below.

Client contacted: Date contacted: Contacted by:

Comments:



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #BRT 19617/0387; Brandywine Realty Trust	Date Sampled: 07/29/08
	Client Contact: Paul King	Date Received: 07/30/08
	Client P.O.:	Date Analyzed: 08/01/08
		Date Extracted: 08/01/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0807704

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001B	B24W	W	ND,b1	ND	ND	ND	ND	ND	1	100

Reporting Limit for DF =1; ND means not detected at or	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment



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 Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #BRT 19617/0387; Brandywine Realty Trust	Date Sampled: 07/29/08
	Client Contact: Paul King	Date Received: 07/30/08
	Client P.O.:	Date Analyzed 07/31/08
		Date Extracted: 07/30/08

Total Extractable Petroleum Hydrocarbons*

Extraction method SW3510C Analytical methods SW8015C Work Order: 0807704

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	TPH-Bunker Oil (C10-C36)	DF	% SS
001A	B24W	W	130,e7,e2,b1	350	420	1	108

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	100	µg/L
	S	NA	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLCL / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment
 e2) diesel range compounds are significant; no recognizable pattern
 e7) oil range compounds are significant



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37242

WorkOrder 0807704

EPA Method SW8021B/8015Cm		Extraction SW5030B							Spiked Sample ID: 0807681-012			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) ^f	ND	60	100	93.7	6.94	91.4	99.2	8.17	70 - 130	20	70 - 130	20
MTBE	ND	10	88.8	87	2.02	75.1	86.7	14.4	70 - 130	20	70 - 130	20
Benzene	ND	10	88.5	82.9	6.47	79.6	84.9	6.37	70 - 130	20	70 - 130	20
Toluene	ND	10	86.9	82.2	5.50	79.1	84.7	6.84	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	88	83.6	5.03	80.1	85.8	6.81	70 - 130	20	70 - 130	20
Xylenes	ND	30	81.4	79.4	2.38	76.4	81.3	6.19	70 - 130	20	70 - 130	20
%SS:	103	10	102	99	3.91	101	100	1.43	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 37242 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807704-001B	07/29/08 11:05 AM	08/01/08	08/01/08 8:41 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37210

WorkOrder 0807704

EPA Method SW8015C		Extraction SW3510C							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	108	108	0	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	118	117	0.941	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 37210 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807704-001A	07/29/08 11:05 AM	07/30/08	07/31/08 12:50 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #BRT19911/0387; Brandywine Realty Trust	Date Sampled: 08/28/08
	Client Contact: Paul King	Date Received: 08/29/08
	Client P.O.:	Date Reported: 09/09/08
		Date Completed: 09/08/08

WorkOrder: 0808839

September 09, 2008

Dear Paul:

Enclosed within are:

- 1) The results of the 2 analyzed samples from your project: **#BRT19911/0387; Brandywine Real**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.



RGA Environmental, Inc.
 1466 - 66th St
 Emeryville, CA 94608
 510-658-4363
 510-834-0152 fax
 paul.king@rgaenv.com

0808839

CHAIN OF CUSTODY RECORD

+5
+5

PROJECT NUMBER: BRT19911/0387			PROJECT NAME: BRANDYWINE REALTY TRUST 2100 FRANKLIN STREET OAKLAND, CA			NUMBER OF CONTAINERS	ANALYSIS(ES): TPH MUTUAL RANGE (G.D.B. No) M BTEX BY 8021 B	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) Michael Deschenes, MICHAEL DESCHENES									
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION					
B27W	8/28/08	09:15	WATER			7	✓	ICE	NORMAL TURN AROUND
B30W	8/28/08	11:58	WATER			6	✓	ICE	" " "
						ICE/1° 4.3°C GOOD CONDITION ✓ HEAD SPACE ABSENT ✓ DECHLORINATED IN LAB M ✓ PRESERVED IN LAB NO PRESERVATION VOAS O & G METALS OTHER			
RELINQUISHED BY: (SIGNATURE) Michael Deschenes		DATE 8/29/08	TIME 1:45	RECEIVED BY: (SIGNATURE)		TOTAL NO. OF SAMPLES (THIS SHIPMENT) 2	LABORATORY: MC CAMP BELL ANALYTICAL		
RELINQUISHED BY: (SIGNATURE)		DATE 8/29/08	TIME 3:15	RECEIVED BY: (SIGNATURE) J.K.C.		TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 13	LABORATORY CONTACT: ANGELA RYDEKINS LABORATORY PHONE NUMBER: (877) 252-9262		
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO			
Results and billing to: RGA Environmental, Inc. paul.king@rgaenv.com				+ invoice also to lisa.devito@rgaenv.com		REMARKS: ALL SAMPLES ARE PRESERVED WITH HYDROCHLORIC ACID.			

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0808839

ClientCode: RGAE

WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to: Paul King
 RGA Environmental
 1466 66th Street
 Emeryville, CA 94608
 (510) 658-6916 FAX (510) 834-0152

Email: paul.king@rgaenv.com; pdking0000@a
 cc:
 PO:
 ProjectNo: #BRT19911/0387; Brandywine Realty Trust

Bill to: Lisa Devito
 RGA Environmental
 1466 66th Street
 Emeryville, CA 94608
 lisa.devito@rgaenv.com

Requested TAT: **5 days**
 Date Received: **08/29/2008**
 Date Printed: **08/29/2008**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0808839-001	B27W	Water	8/28/2008 9:15	<input type="checkbox"/>	A	B										
0808839-002	B30W	Water	8/28/2008 11:58	<input type="checkbox"/>	A	B										

Test Legend:

1	G-MBTX_W	2	TPH(DMO)_W	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Samantha Arbuckle

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **RGA Environmental** Date and Time Received: **8/29/2008 3:46:09 PM**
 Project Name: **#BRT19911/0387; Brandywine Realty Trust** Checklist completed and reviewed by: **Samantha Arbuckle**
 WorkOrder N°: **0808839** Matrix Water Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: 4.3°C NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No
 (Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted: Date contacted: Contacted by:

Comments:



McC Campbell Analytical, Inc.

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #BRT19911/0387; Brandywine Realty Trust	Date Sampled: 08/28/08
	Client Contact: Paul King	Date Received: 08/29/08
	Client P.O.:	Date Extracted: 09/02/08-09/05/08
		Date Analyzed: 09/02/08-09/05/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0808839

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	B27W	W	ND,b1	ND	ND	ND	ND	ND	1	99
002A	B30W	W	ND,b1	ND	ND	ND	ND	ND	1	92

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Telephone: 877-252-9262 Fax: 925-252-9269

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #BRT19911/0387; Brandywine Realty Trust	Date Sampled: 08/28/08 Date Received: 08/29/08
	Client Contact: Paul King	Date Extracted: 08/29/08
	Client P.O.:	Date Analyzed 09/05/08-09/08/08

Total Extractable Petroleum Hydrocarbons*

Extraction method SW3510C

Analytical methods SW8015C

Work Order: 0808839

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	TPH-Bunker Oil (C10-C36)	DF	% SS
001B	B27W	W	ND,b1	ND	ND	1	117
002B	B30W	W	780,e7,e2,b1	2900	3700	4	77

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	100	µg/L
	S	NA	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLCL / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment
e2) diesel range compounds are significant; no recognizable pattern
e7) oil range compounds are significant



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37907

WorkOrder 0808839

EPA Method SW8021B/8015Cm		Extraction SW5030B							Spiked Sample ID: 0808840-001			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	109	97.2	11.4	97.6	108	10.2	70 - 130	20	70 - 130	20
MTBE	ND	10	86.8	87.8	1.23	98.2	100	1.91	70 - 130	20	70 - 130	20
Benzene	ND	10	87.2	84.6	3.13	95.8	91.2	4.88	70 - 130	20	70 - 130	20
Toluene	ND	10	84.4	82.6	2.14	92.6	88.3	4.77	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	85.4	82.6	3.30	94.1	88.8	5.86	70 - 130	20	70 - 130	20
Xylenes	ND	30	78.8	76.1	3.53	86.8	82.4	5.13	70 - 130	20	70 - 130	20
%SS:	101	10	104	103	0.775	108	103	5.18	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 37907 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808839-001A	08/28/08 9:15 AM	09/02/08	09/02/08 9:47 PM	0808839-002A	08/28/08 11:58 AM	09/05/08	09/05/08 7:50 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37908

WorkOrder 0808839

EPA Method SW8015C		Extraction SW3510C							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	122	121	1.15	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	94	93	0.951	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 37908 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808839-001B	08/28/08 9:15 AM	08/29/08	09/08/08 12:15 PM	0808839-002B	08/28/08 11:58 AM	08/29/08	09/05/08 4:28 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = $100 * (MS - Sample) / (Amount Spiked)$; RPD = $100 * (MS - MSD) / ((MS + MSD) / 2)$.

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



McC Campbell Analytical, Inc.

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #0387/BRT20266; 2100 Franklin St.	Date Sampled: 11/15/08
	Client Contact: Paul King	Date Received: 11/17/08
	Client P.O.:	Date Reported: 11/24/08
		Date Completed: 11/24/08

WorkOrder: 0811519

November 24, 2008

Dear Paul:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#0387/BRT20266; 2100 Franklin St**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.



RGA Environmental, Inc.
 1466 - 66th St
 Emeryville, CA 94608
 510-658-4363
 510-834-0152 fax
 paul.king@rgaenv.com

0811519

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER: 0387/BRT20266		PROJECT NAME: 2100 FRANKLIN ST OAKLAND			NUMBER OF CONTAINERS	ANALYSIS(ES): TPH, METALS (GP, MO, BO) MB TEX BY 8021B	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) MICHAEL DESCHENES <i>Michael Deschenes</i>								
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION				
+5 B31w	11/15/08	1455	H ₂ O		7	X X	ICE	Normal Turnaround Time
+10 B32w	↓	1640	↓		5	X X	↓	↓
+10 B33w	↓	1550	↓		5	X X	↓	↓
					ICE 11 ⁰⁰ VES 3.6 ⁰⁰		APPROPRIATE CONTAINERS <input checked="" type="checkbox"/>	
					GOOD CONDITION <input checked="" type="checkbox"/>		PRESERVED IN LAB <input checked="" type="checkbox"/>	
					HEAD SPACE ABSENT <input checked="" type="checkbox"/>		VOAS O & G METALS OTHER	
					DECHLORINATED IN LAB <input checked="" type="checkbox"/>			
RELINQUISHED BY: (SIGNATURE) <i>Michael Deschenes</i>					DATE 11/17/08	TIME 2:30	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	TOTAL NO. OF SAMPLES (THIS SHIPMENT) 3
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>					DATE 11/17/08	TIME 15:15	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 17
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>					DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	LABORATORY CONTACT: Angela Rydelius
								LABORATORY PHONE NUMBER: (877)252-9262
								SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO

Results and billing to:
 RGA Environmental, Inc.
 paul.king@rgaenv.com
 & invoice also to
 lisa.devito@rgaenv.com

REMARKS:

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0811519

ClientCode: RGAE

WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to: Paul King
 RGA Environmental
 1466 66th Street
 Emeryville, CA 94608
 (510) 658-6916 FAX (510) 834-0152

Email: paul.king@rgaenv.com; pdking0000@a
 cc: lisa.devito@rgaenv.com
 PO:
 ProjectNo: #0387/BRT20266; 2100 Franklin St.

Bill to: Lisa Devito
 RGA Environmental
 1466 66th Street
 Emeryville, CA 94608
 lisa.devito@rgaenv.com

Requested TAT: 5 days

Date Received: 11/17/2008
Date Printed: 11/17/2008

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0811519-001	B31w	Water	11/15/2008 14:55	<input type="checkbox"/>	B	A											
0811519-002	B32w	Water	11/15/2008 16:40	<input type="checkbox"/>	B	A											
0811519-003	B33w	Water	11/15/2008 15:50	<input type="checkbox"/>	B	A											

Test Legend:

1	G-MBTX_W	2	TPH(DMO)_W	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Samantha Arbuckle

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **RGA Environmental** Date and Time Received: **11/17/2008 6:10:00 PM**
Project Name: **#0387/BRT20266; 2100 Franklin St.** Checklist completed and reviewed by: **Samantha Arbuckle**
WorkOrder N°: **0811519** Matrix Water Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present? Yes No
Chain of custody signed when relinquished and received? Yes No
Chain of custody agrees with sample labels? Yes No
Sample IDs noted by Client on COC? Yes No
Date and Time of collection noted by Client on COC? Yes No
Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
Shipping container/cooler in good condition? Yes No
Samples in proper containers/bottles? Yes No
Sample containers intact? Yes No
Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
Container/Temp Blank temperature Cooler Temp: 3.6°C NA
Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
Sample labels checked for correct preservation? Yes No
TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
Samples Received on Ice? Yes No

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted: Date contacted: Contacted by:

Comments:



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1534 Willow Pass Road, Pittsburg, CA 94565-1701
 Web: www.mcccampbell.com E-mail: main@mcccampbell.com
 Telephone: 877-252-9262 Fax: 925-252-9269

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #0387/BRT20266; 2100 Franklin St.	Date Sampled: 11/15/08
	Client Contact: Paul King	Date Received: 11/17/08
	Client P.O.:	Date Analyzed: 11/19/08-11/20/08
		Date Extracted: 11/19/08-11/20/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0811519

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001B	B31w	W	ND,b1	ND	ND	4.0	0.93	7.6	1	95
002B	B32w	W	130,000,d1,b1	ND<250	2700	15,000	4300	23,000	50	103
003B	B33w	W	230,d1,b1	ND	3.0	21	9.0	51	1	98

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment
 d1) weakly modified or unmodified gasoline is significant



McC Campbell Analytical, Inc.

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Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #0387/BRT20266; 2100 Franklin St.	Date Sampled: 11/15/08
	Client Contact: Paul King	Date Received: 11/17/08
	Client P.O.:	Date Analyzed 11/22/08
		Date Extracted: 11/17/08

Total Extractable Petroleum Hydrocarbons*

Extraction method SW3510C

Analytical methods SW8015B

Work Order: 0811519

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	TPH-Motor Oil (C18-C36)	TPH-Bunker Oil (C10-C36)	DF	% SS
001A	B31w	W	110,e7,e2,b1	270	480	1	95
002A	B32w	W	170,000,e4,b1	ND<12,000	160,000	50	123
003A	B33w	W	440,e7,e4,b1	1300	1700	1	100

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	250	100	µg/L
	S	NA	NA	NA	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment
e2) diesel range compounds are significant; no recognizable pattern
e4) gasoline range compounds are significant.
e7) oil range compounds are significant



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 39707

WorkOrder: 0811519

EPA Method: SW8021B/8015Cm		Extraction: SW5030B							Spiked Sample ID: 0811526-010A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	100	117	15.2	104	106	1.51	70 - 130	20	70 - 130	20
MTBE	ND	10	107	105	1.69	80.2	91.4	13.0	70 - 130	20	70 - 130	20
Benzene	ND	10	97.1	98.9	1.82	87.9	91.5	4.06	70 - 130	20	70 - 130	20
Toluene	ND	10	109	110	1.28	92.3	94.7	2.62	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	105	109	3.98	92.2	94.8	2.74	70 - 130	20	70 - 130	20
Xylenes	ND	30	116	119	1.99	105	109	2.90	70 - 130	20	70 - 130	20
%SS:	101	10	97	100	3.62	99	101	1.86	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 39707 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811519-001B	11/15/08 2:55 PM	11/19/08	11/19/08 12:46 AM	0811519-002B	11/15/08 4:40 PM	11/20/08	11/20/08 7:29 PM
0811519-003B	11/15/08 3:50 PM	11/19/08	11/19/08 8:18 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 39692

WorkOrder: 0811519

Analyte	EPA Method SW8015B		Extraction SW3510C						Spiked Sample ID: N/A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	99.5	98.9	0.613	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	106	105	0.525	N/A	N/A	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 39692 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0811519-001A	11/15/08 2:55 PM	11/17/08	11/22/08 7:32 PM	0811519-002A	11/15/08 4:40 PM	11/17/08	11/22/08 3:59 PM
0811519-003A	11/15/08 3:50 PM	11/17/08	11/22/08 9:54 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.