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## SUBSURFACE INVESTIGATION and SENSITIVE RECEPTOR SURVEY REPORT

Wash Time Laundromat 1815 Park Boulevard Oakland, California

### PREPARED FOR:

*CW Investment Group* 132 9<sup>th</sup> Street #200 Oakland, California 94607

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### SUBSURFACE INVESTIGATION and SENSITIVE RECEPTOR SURVEY REPORT

Wash Time Laundromat 1815 Park Boulevard Oakland, California

## I. EXECUTIVE SUMMARY

AllWest has conducted a multi-task environmental investigation at the Wash Time Laundromat during November 2005. The scope of work was to assess the nature and extent of tetrachloroethene (PCE) and its common degradational products trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE) and trans-1,2-dichloroethene (trans-1,2-DCE) in groundwater, soil and soil gas to evaluate the impact of the chemicals to site and offsite receptors.

## This executive summary is provided solely for the purpose of overview. Any party who relies on this report must read the full report. The executive summary may omit details, any one of which may be crucial to the proper understanding and risk assessment of the subject manner.

The work responds to a request by the Alameda County Environmental Health (ACEH), outlined in their letter of October 13, 2005, to provide additional technical information on the impact of a release of PCE at the property. The ACEH reviewed AllWest's Work Plan and Site Specific Health & Safety plan dated October 31, 2005, which described the essential elements required to complete the investigation. The ACEH approved the Workplan with minor comments on November 2, 2005.

The scope of work for this investigation included obtaining the necessary permits from the Alameda County Public Works Agency (ACPWA), clearing proposed well locations of known underground utilities, retaining the services of a C-57 licensed drilling contractor to drill five geoprobe borings (AWB-7 through AWB-11) and three soil gas probes (AWSG-1, AWSG-2, and AWSG-3). Soil and groundwater samples were collected from the geoprobe borings and analyzed for PCE and other halogenated volatile organic chemicals (VOCs) by EPA Method 8260. Soil gas samples were collected from soil gas probes in general accordance with the Department of Toxic Substances Control (DTSC) guidelines and analyzed for VOCs by EPA Method TO-15. AllWest also performed a sensitive receptor survey that identified water wells and surface water bodies within approximately 2,000 feet of the property and a volatile vapor receptor survey within 400 feet of the property.

Based on the results of the past and current investigations AllWest concludes:

- 1. Soil, soil gas and groundwater beneath the subject property is impacted by a release of chlorinated solvents;
- 2. Based on the removal of the dry cleaning equipment no ongoing primary source exists at the property;
- 3. The primary source of PCE appears to originate in the vicinity of the former dry cleaning equipment located in the central portion of the Laundromat. The PCE verticality migrated from surface leaks and chemically handling practices through the vadose zone to the groundwater table and lateral migration as a dissolved plume in groundwater;
- 4. The spatial distribution of chlorinated solvents in site groundwater indicates the main mass of VOCs remains onsite in the central portion of the Laundromat. No significant amount of VOCs appear to have migrated off-site;
- 5. The existence of PCE daughter products, TCE, cis-DCE and vinyl chloride indicates that PCE is actively being biodegraded through the process of anaerobic biodegradation (dechlorination);
- 6. High levels of PCE, above various regulatory screening levels were detected in a soil gas sample collected in the general vicinity of the former dry cleaning machine and drum storage areas. Soil gas results generally mimic the distribution of PCE in soil and groundwater;
- 7. The sensitive receptor survey did not identify any water wells, surface water bodies. volatile vapor or any other offsite receptors that would likely be impacted by the release of VOCs from the site;
- 8. Based on the PCE concentration detected in site soil, groundwater and soil gas compared to Environmental Screening Levels (ESLs) for the evaluation of potential vapor intrusions concerns, further site specific evaluation is required to assess if a threat to the workers or customers of the facility exist.

## **II. INTRODUCTION**

AllWest conducted a subsurface investigation on November 24 and 25, 2005 at a former dry cleaning facility, currently Wash Time Laundromat, 1815 Park Boulevard, Oakland, California (Figure 1). The purpose of the investigation was to evaluate the areal extent and magnitude of the dry cleaning solvent tetrachloroethene (PCE) and its common breakdown products in soil, groundwater and soil gas. The information was used to assess if residual chemicals detected in these media pose an unacceptable risk to the human health of either on-site or off-site commercial and industrial tenants. To assess the risk, analytical results from this investigation and previous investigations performed by AEI Consultants (AEI) and AllWest were compared to Environmental Screening Levels (ESLs) published by the San Francisco Bay Regional Water Quality Control Board (RWQCB).

## A. Site Background

An approximately 10,000 square foot, coin-operated laundromat currently operates at the property. The building is located in a slab-on-grade, cement block and wood frame building. The laundromat occupies the southern suite of the five unit building. Adjacent properties consist of commercial business buildings to the north and west, an asphalt paved parking lot to the northwest and public sidewalks and streets to the east and south. No monitoring or groundwater supplies wells were observed on the subject or adjacent properties.

Based on previous work performed by AEI and information provided by the property owner, CW Investments, the suite was occupied by a dry cleaning facility from circa 1967 through 1997. The suite was remodeled and subsequently used as a coin operated laundromat. A specific area or location where PCE entered the subsurface has not been identified. The dry cleaning machine was reportedly located in the central portion, along the western side of the tenant space. Chemical storage is reported to have been toward the central and rear portion of the suite.

## **B.** Previous Investigations

To assess if subsurface conditions were impacted from historical use of the dry cleaning solvent, AEI Consultants (AEI) collected soil and groundwater samples from six (6) soil borings drilled on the property on January 12 and March 14, 2005. PCE was detected in three soil samples, at a maximum concentration of 3,100 micrograms per kilogram ( $\mu$ g/kg), equivalent to 3,100 parts per billion (ppb) at boring SB-4, and in five groundwater samples, at a maximum concentration of 230 micrograms per liter ( $\mu$ g/L), equivalent to 230 parts per billion (ppb) at boring SB-4 (Figures 5). Based on data collected, AEI concluded a "release of solvents had occurred in the area of the former dry cleaning operation."

To further assess the extent of chemicals in the subsurface, an investigation was performed by AllWest on May 24, 2005 and included the drilling and sampling of six soil boreholes (AWB-1 through AWB-6). Two borings were drilled within the interior of the building and four borings were drilled at exterior locations in the inferred downgradient direction from the PCE source area (Figure 5). Soil and "grab" groundwater samples collected were forwarded to a California State certified laboratory and analyzed for VOCs.

PCE was detected in two of four soil samples analyzed at concentrations of 490 micrograms per kilogram ( $\mu$ g/kg), equivalent to 490 parts per billion (ppb) and 2,200 ppb, respectively. No other VOCs were detected. Soil analytical results are summarized in Table 1.

PCE was detected in three of the six groundwater samples at concentrations ranging from 1.2 micrograms per liter ( $\mu$ g/L), equivalent to 1.2 parts per billion (ppb) in sample AWB-3W, to 77 ppb detected in sample AWB-2W. TCE, a breakdown product of PCE, was detected at concentrations of 13 ppb and 4.2 ppb in groundwater samples collected from borings AWB-1W and AWB-2W. The breakdown product cis-1,2-DCE was detected at concentrations of 14 ppb, 7.1 ppb and 0.86 ppb in groundwater samples collected from borings AWB-1W, AWB-2W and AWB-3W (Figure 4). Low levels of vinyl chloride and chloroform were also detected in the same groundwater samples. No VOCs were detected in groundwater samples collected from borings AWB-4, AWB-5 or AWB-6. These three samples were collected from the assumed down-gradient direction of the former dry cleaning operations. Groundwater analytical results are summarized in Table 2.

Based on the work performed AllWest concluded:

- Historic operations at a former dry cleaner resulted in a release of PCE that impacted subsurface conditions at the property. No ongoing source is present;
- A spatially limited chlorinated solvent plume exists beneath the current structure. Its lateral extent has been reasonably defined with the highest concentration centered on the location of the former dry cleaning operation;
- Elevated levels of PCE in soil are limited to near surface soils, below a concrete slab floor and in the vicinity of the former dry cleaning operations;
- Residual concentrations of VOCs will decrease due to natural attenuation.

The report was submitted to the City of Oakland and the Alameda County Department of Environmental Health.

### C. Scope of Work

On October 13, 2005 the ACHS submitted a request to CW Investment Group to provide additional technical information on the impact of a release of PCE at the property. The ACEH reviewed AllWest's Work Plan and Site Specific Health & Safety plan dated October 31, 2005, which described the essential elements required to complete the investigation. The ACEH approved the Workplan with minor comments on November 2, 2005.

The purpose of the November 2005 investigation was to evaluate the lateral extent of VOCs in soil, soil gas and groundwater in the vicinity of the subject dry cleaning facilities and assess the risk of to onsite workers and adjacent receptors. The scope of work consists of the following tasks:

- 1) Preparing a written workplan for conducting a subsurface investigation at the site. Submit the plans to the ACEH for review and concurrence;
- 2) Conducting a study to evaluate if any sensitive receptors such as schools, day care centers, or medical care facilities are located within the near vicinity of the property;
- 3) Performing a well survey to identify monitoring, production, active, standby, decommissioned, abandoned, dewatering, drainage and cathodic protection wells within 2,000 feet of the property;
- 4) Engaging the service of Underground Service Alert (USA) and a private underground utility locator to locate and clear underground utilities including the onsite sewer line within the proposed investigation area so the potential of accidental damage to underground utilities will be reduced;
- 5) Retaining the service of a C-57 licensed drilling contractor for the advancement of five interior geoprobe borings to approximate depths of 12 feet. Advance three soil gas probes in the interior of dry cleaners to an approximate depth of four feet as shown on Figure 4;
- 6) Collecting soil samples and "grab" groundwater samples from the interior geoprobe borings. Collecting soil gas samples from interior gas probe locations;
- 7) Maintaining samples under chain-of-custody and transport the samples to a Department of Health Services (DHS) certified analytical laboratory for chemical analyses. Analyzing soil and groundwater samples to detect the presence of PCE and its breakdown products by EPA method 8260. Analyze soil gas samples for VOCs using EPA method TO-15;

8) Preparing a written report describing the field activities, summarizing the laboratory data, soil gas results, presenting investigation findings and a Conceptual Site Model.

## III. SITE SETTING

## A. Regional Geology

The subject property is located in the Coast Range Geologic/Geomorphic Province, a series of parallel and sub-parallel structural mountains and valleys that have undergone a complex history of sedimentation, vulcanism, subduction, faulting, uplift and erosion. Tectonics in the area are controlled by the right-lateral Hayward fault located approximately 2-1/2 miles to the northwest and the San Andreas Fault located 13 miles to the southeast. The San Andreas is the master fault of the Coast Range and marks the junction of the northward moving Pacific Plate, located west of the fault and the Americas Plate, located east of the fault and moving to the southeast.

Locally, the subject property is located on the East Bay Plane which consist of a series of coalescing alluvial fans derived from the erosion of the East Bay Hills. These sloping fans are located at slightly higher elevations and east of the property. In the vicinity of the site, young marine terraces were deposited when sea level was at a higher elevation than currently exists.

#### B. Site Lithology

A review of boring logs prepared during this and previous investigation indicate near surface soils consist of soft clays with interbedded lenses of fine grained sand to the maximum depth explored of 15 feet. Some fill material was observed in the upper two feet of the ground surface. A distinct color change from a brown to a dark blueish gray occurred at an approximate depth of five feet which corresponds to the groundwater table or saturated zone.

#### C. Site Hydrogeology

Groundwater was first observed at an approximate depth of five feet. As mentioned above a distinct soil color change occurred at this depth. The borings yielded water depending on the amount of sand present, with some borings rapidly yielding water to the borehole and others with more clay content slowly yielding water before the boring filled with water. The property is located in a well defined north east/southwest trending drainage swale or drainage channel (Figures 1 and 2). The trace of the channel corresponds to the approximate location of Park Boulevard and drains the area to the northeast of the property and empties into the Lake Merritt to the southwest. Based on this well defined topographical channel it is presumed the local groundwater flow direction will be concurrent with the trace of the channel.

## IV. FIELD INVESTIGATION AND SAMPLING METHODOLOGY

#### A. Permitting

Prior to the start of subsurface investigations the necessary permits were obtained from the Alameda County Public Works Agency (ACPWA) on November 11, 2005. The ACPWA were informed five working days prior to the start of field work to schedule grouting inspections.

Copies of the permits are attached as Appendix A.

#### **B.** Underground Utility Clearing

To avoid damage to underground utility installations during the course of the subsurface investigation, AllWest contacted Underground Service Alert (USA), an organization for public utility information, on the pending subsurface investigation. USA then notified each of the public and private entities that maintained underground utilities within the vicinity of the site to locate and mark their installations for field identification.

A private underground utility locator, *Subtronics*, Concord, California, was also employed by *AllWest* to conduct a magnetometer sweep of the investigation area to locate the marked and unmarked underground utilities. All final sampling locations were cleared of known underground utilities. The lateral sewer drain line at the site was located and is depicted in Figure 4. The sewer line was located at an approximated depth of 11/2 to 2 feet and sloped south where it connected with the main sewer line running under the sidewalk along Park Boulevard.

#### C. Soil Borehole Advancement

A total of five geoprobe borings, AWB-7 through AWB-11, were advanced at the subject site during this surface investigation. All the borings were located inside the building. Borings AWB-7 and AWB-8 and were located in the central potion of the suite to better define the lateral extent of VOCs in the central portion of the suite. Borings AWB-9, AWB-10 and AWB-11 were located adjacent to the lateral sewer line to assess if release(s) have occurred from the line. Borehole locations are graphically presented in Figure 2.

The borehole advancement was performed by *Vironex Environmental Field Services* (Vironex) of San Leandro, California, a licensed C-57 California drilling contractor. The soil boreholes were advanced by limited access drilling equipment utilizing the direct push, Geoprobe process. During the borehole advancement operation, *AllWest* was present to collect representative soil and groundwater samples, to conduct field screening and to maintain a continuous log of drilling activities. All work was performed under the direction of a California Professional Geologist.

The boring logs contained pertinent information on borehole advancement and soil conditions, in particular the lithology of site soils and physical characteristics. Copies of the boring logs, log legends, and a copy of the Unified Soil Classification System (USCS) are included in Appendix A.

#### D. Soil Sampling

Discrete soil samples for chemical analysis were collected from the boreholes at approximate depths of 2 to 3 feet below ground surface (bgs) bgs. Due to very soft soil conditions only a very limited amount of soil was recovered. Only one sample, collected from AWB-10 at a depth of 2 to 3 feet was deemed acceptable for analytical testing. Additional soil samples were also collected for lithological purposes. Standard geoprobe soil sampling procedures were followed.

#### E. Groundwater Sampling

Groundwater was first identified in borings at approximate depths of 5 to 6 feet. A distinct color change of the sediments from a brown to a dark grey occurred at this horizon. After the borings reached a total depth of 9 feet, clean PVC plastic casings and screen were lowered into the boreholes and used as a temporary well screen. Groundwater samples were collected from the casing using Teflon tubing and a check valve assembly. New Teflon tubing and check valves was used to collect each groundwater sample. All water samples were transferred to appropriate sample bottles furnished by the analytical laboratory. Samples for VOC analysis were collected in three 40 milliliter(ml) VOA vials. All VOA sample bottles had a Teflon lined septum/cap and were filled such that no headspace was present. All sample bottles were labeled and immediately placed on ice.

After the completion of soil and groundwater sampling activities all borings were backfilled to the surface with a "neat" cement grout. Grouting activities were observed by a representative of the ACPWA.

#### F. Soil Gas Sampling

Soil gas sampling was performed at three locations in the interior of the laundromat to obtain representative soil gas information. The work was performed in general accordance with guidelines issued by the DTSC and the Los Angeles Regional Water Quality Control Board. Lithological information obtained during the subsurface portion of the investigations were used to select sample depths. Due the high groundwater table, approximately 5 feet below grade, a target sample depth of 31/2 feet to 4 feet was selected.

Soil gas sampling was performed by Vironex using direct push technology and expendable/temporary sampling points. The drive rods were pushed to an approximate depths of 4 feet and them pulled back ½ foot separating the expendable points from their holder and creating the desired void space. Temporary sample points (PRTs) and polyethylene tubing were advance through the drive rods and secured. The tubing was then attached to a soil gas sampling manifold equipped with a filter, pressure and vacuum gauges and a 200 milliliter per minute flow regulator (a schematic of the manifold is attached as Figure 7). To help prevent surface air intrusion hydrated bentonite was placed around the drive rods and was allow to "set" for 30 minutes.

After the bentonite was allowed to hydrate, leak tests of the manifolds were performed to verify the systems could hold a vacuum for 5 minutes. The purge volumes of the sampling tubing and soil void spaces were then calculated. The soil gas sample collection systems were then purged of three volumes at a rate of 200 milliliter per minute using a 6 liter purge Summa Canister. To check for line leaks, paper towels soaked with isopropyl alcohol (IPA also known as 2-propanol) was place adjacent to bentonite seals and fittings upstream from the manifold. Soil gas samples were then collected in 6 liter Summa Canisters at rate of 200 milliliter per minute. During the collection periods, the initial vacuum pressures were recorded and then at every ten minute interval until approximately 20% of the initial vacuum remained. The Summa canister were filled in 50 to 60 minutes.

After the Summa canisters were filled, the canister were removed form the manifold, labeled with sampling information, including initial and final vacuum pressures, placed in a dark container and shipped under chain-of-custody to the analytical laboratory. All downhole sampling equipment was removed from the soil gas probes and the hole backfilled with cement grout.

## V. LABORATORY ANALYSES

#### A, Quality Assurance/Quality Control

#### Sample Preservation, Storage and Handling

To help prevent the loss of constituents of interest, all soil and groundwater samples were preserved by storing them in an ice chest cooled to 4°C with crushed ice immediately after their collection and during transportation to the laboratory. Soil gas Summa canisters were placed in a dark container for shipping.

#### Chain-Of-Custody Program

All samples collected for this project were transported under chain-of-custody protocol. The document included the signature of the collector, date and time of collection, sample number, number and type of sample containers including preservatives, parameters requested for analysis, signatures of persons and inclusive dates involved in the chain of possession. A copy of the chain-of-custody is included with the analytical laboratory data sheets in Appendix C.

#### **Decontamination Procedures**

All groundwater sampling equipment and instruments were cleaned and rinsed with distilled water prior to each use. Disposable sampling devices were used when possible to reduce the frequency of re-using equipment.

#### **B.** Laboratory Analyses

A total of five groundwater samples and one soil were analyzed as part of this investigation. All samples were analyzed by Campbell Anaytical, Inc., of Pacheco California a California Department of Health Services (DHS) approved laboratory for the analysis requested.

The soil and groundwater samples collected during this investigation were analyzed for Halogenated Solvents by EPA Method/8260B;

Three soil gas soil samples were submitted to *Air Toxics Ltd.*, Folsom, California. *Air Toxics* is a California Department of Health Services (DHS) certified analytical laboratory for the analysis requested. All of the samples were analyzed for volatile organic compounds (VOCs) per EPA Method TO15.

#### <u>Soil</u>

PCE was detected at a concentration of 43 ppb in the one soil sample, AWB-10 analyzed during this investigation. PCE was detected in soil samples collected during previous investigation at concentrations from non-detectable up to a maximum of 3,100 ppb in a sample collected from boring SB-4-4'. No other VOCs other than PCE were detected in any samples. Soil analytical results are summarized in Table 1.

High PCE concentrations in soil samples are associated with the location of the former dry cleaning machine and chemical storage area. Soil samples collected away from the former dry cleaner location exhibited low to non-detectable concentrations of PCE.

#### **Groundwater**

PCE was detected in four of the five groundwater samples collected during this investigation at a maximum concentrations 70 pbb. TCE, a breakdown product of PCE, was detected three of five sample at a maximum concentration of 1.7 ppb. The breakdown product cis-1,2-DCE was detected in four of five samples at a maximum concentrations of 3.4 ppb. Vinyl chloride was also detected at maximum concentration of 28 ppb. No VOCs were detected in the groundwater sample collected from borings AWB-11, with the exception of cis-1,2-DCE which was detected at a concentration below 1 ppb.

A total of 17 water samples have been analyzed during this and previous investigations. Groundwater analytical results are summarized in Table 2. Iso-contours of total VOC concentrations are presented on Figure 5. As with the soil samples the highest concentrations detected are associated with the probable source area, the former dry cleaning machine and chemical storage area.

#### Soil Gas

A total of three soil gas samples were analyzed during this investigation. VOCs were detected in all samples. The most prevalent VOC detected was PCE which was detected at a maximum concentration of 59,000 micrograms per cubic meter (ug/m3) in the sample collected from soil gas sample AWSG-1. High concentrations were also detected in sample AWSG-3. The next most prevalent VOC was toluene, a petroleum hydrocarbon constituent which was detected at a maximum concentration of 1,800 ug/m3 in the sample collected from AWSG-2. TCE was detected in only one sample, AWSG-1. Various other VOCs, mostly petroleum hydrocarbon constituents were detected at relatively low concentrations. As with the soil and groundwater, the highest concentrations of VOC detected in soil gas are associated with the probable source area, the former dry cleaning machine and chemical storage area.

The detection of toluene and various other petroleum hydrocarbons indicate a possible gasoline release source in the area.

The chemical 2-propanol, also known as Isopropyl Alcohol (IPA) was detected at low concentrations, 58 ug/m3, in the soil gas sample collected from gas probe AWSG-2. IPA was not detected in the other two soil gas samples. IPA was used as the leak detector or tracer chemical when the samples were collected. The detection at low concentrations of IPA in the sample indicates some surface leakage probably occurred at this location.

A summary of soil gas concentrations of PCE, TCE, toluene and 2-propanol are shown on Table 3. A complete listing of all the chemicals detected are included in the chemical data sheets (Appendix B).

## VI. SENSITIVE RECEPTOR SURVEY

AllWest performed a sensitive receptor survey that identified water wells and surface water bodies within approximately 2,000 feet of the property and volatile vapor receptors within approximately 400 feet of the property. Figure 3 depicts the volatile vapor receptors location.

#### A. Well Survey

To assess if groundwater within 2,000 feet of the subject property is being used as a drinking supply or for other purposes, AllWest contacted the California Department of Water Resources (DWR), RWQCB and the Alameda County Department of Public Work Division to obtain information regarding the existence and construction details of water wells within a 2,000 feet of the property.

The search did not identified any well types present within the search radius: irrigation, cathodic protection, and monitoring. No private or municipal drinking water supply wells were identified.

#### **B.** Surface Water

No surface water body is located at or adjacent to the subject property. The closest water body is Lake Merritt located approximately 1000 feet northwest of the subject property. The Brooklyn Basin, a portion of the Oakland Estuary is located 4,200 feet south of the property.

Given the distance and groundwater flow direction, site conditions at the subject property will not affect the surface waters of Lake Merritt or the Oakland Estuary.

#### C. Volatile Vapor Receptors

A volatile vapor receptor survey was performed at properties within approximately 400 feet of the property. The survey was conducted on November 8, 2005 by walking the area in the vicinity of the property and noting land use. Specifically AllWest looked for sensitive receptors, such as day care centers, schools, medical care facilities as well as identifying other properties which may handle hazardous materials or waste. Figure *3* identifies the properties surveyed, Table 4 summarizes property use.

Properties in the vicinity of the site consist of a variety of commercial properties including small markets, convenience stores, retail stores, beauty salons, restaurants, offices, a movie theater, laundromats and multi-tenant, multi-story residential structures (apartments). A former gasoline station, currently an auto repair facility is located at the intersection of Park Boulevard and Wayne Plaza (Map ID # 19 Figure 3 and Table 4). This facility contains numerous automotive vehicles in various stages of repair. No monitoring wells or fuel dispensers were observed at the facility. This faculty is located in the presumed upgradient direction from the subject property. A dry cleaning facility, *French Unique Cleaners*, 1803 Third Avenue (Map ID # 25 Figure 3 and Table 4) is located at the intersection of Third Avenue and 18<sup>th</sup> Street. It is unknown if dry cleaning operations are performed on-site. This facility is located downgradient of the subject property.

One sensitive receptor facility, *Lake Shore Convalescent Hospital*, 1901 Third Avenue.(Map ID # 20 Figure 3 and Table 4), is located at the intersection of Third Avenue and Wayne Plaza. This facility is located, approximately 300 feet north and in the presumed upgradient direction from the subject property. Given the distance and groundwater flow direction, site conditions at the subject property will not affect this facility.

With the exception of the Convalescent Hospital, no schools, parks, day care centers or other type of land use that would be considered a sensitive receptor were noted within 400 feet of the subject property.

## VII. CONCEPTUAL SITE MODEL

Chemical analysis of samples collected during the current and previous investigations detected concentration of the dry cleaning solvent PCE and its breakdown products in soil, groundwater and soil gas samples. The highest concentrations detected in all three media were centered in the probable vicinity of the former dry cleaning machine and chemical storage area. Figure 6 presents a conceptual model of the facility, depicting migration pathways and exposure routes.

Dry cleaning solvents can enter the subsurface through surface spills and handling practices. The specific area or location where PCE entered the subsurface has not been identified. Based on the distribution and concentration of VOCs, the source area is likely located in the vicinity of the former dry cleaning operation.

TCE, cis-1,2-DCE and vinyl chloride, which are breakdown constituents of PCE, were detected in groundwater samples collected from borings in the vicinity of the former dry cleaning operations. The detection of the breakdown products in the groundwater samples indicates biodegradation of PCE is occurring at the subject site. It is reasonable to presume concentrations of PCE and its breakdown products in soil and groundwater will decline over time through the processes of dispersion, dilution, sorption, biodegradation and volatilization.

The lateral extent of VOCs in groundwater has been reasonably defined. Figure 5 depicts the approximate lateral extent of VOC in groundwater which exceeds 10 and 100 ppb. Elevated levels of PCE have not been detected away from the former dry cleaning operations area. PCE has not been detected above detection levels in an off-site boring except for 1.2 ppb detected in the groundwater sample collected from boring AWB-3. No off-site sensitive receptors have been impacted. No additional off-site characterization is required.

Soil and groundwater samples collected along the sewer line indicates leakage of solvents from the line has not occurred and the line is not acting as preferential pathway or secondary source. Further evaluation of the sewer line is not required.

Soil gas samples collected from three locations at the facility detected both halogenated and non-halogenated volatile organics. The source of the halogenated or chlorinated VOCs (PCE, TCE etc.) is likely from a release of PCE in the vicinity of the former dry cleaning operation. The source of the non-halogenated organics (toluene, etc) may be related to a gasoline release in the area of the facility.

#### Exposure Routes

#### <u>Soil</u>

The entire site and surrounding area is covered with a building, sidewalks, streets and paved parking areas. Impacted soil is limited to the area around the former dry cleaning facility. No direct exposure routes exists. The only likely exposure route is off-gassing and vapor intrusion of the residual VOC in soil to indoor air quality.

#### **Groundwater**

The site is located in a dense, built-up urban environment. Based on the shallow depth to groundwater and the results of well survey it is reasonable to presume the first encountered groundwater in the vicinity of the property is not a current or potential drinking water source. Therefore direct exposure or ingestion of impacted groundwater is unlikely. The only likely exposure route is off-gassing and vapor intrusion of the residual VOC in groundwater to indoor air quality.

#### Comparison of Maximum of VOC Concentration to ESLs

As presented on Tables 1, 2, and 3 the maximum concentrations of PCE detected in soil of 3,100 ppb (SB-4-4') and 2,200 ppb (AWB-2-4'), groundwater of 230 ppb (SB-4W) and 77 ppb (AWB-2W) and soil gas 59,000 ug/m3 (AWSG-1) and 9,400 ug/m3 (AWSG-3) were compared to the commercial ESL for potential vapor intrusion concerns. The ESL for potential vapor intrusion concerns for PCE in soil in a commercial setting is 240 ppb, in groundwater 170 ppb and in soil gas 410 ug/m3 ppb (RWQCB February 2005, Summary Tier 1 Lookup Tables E, E-1a and E-1b).

The maximum detected concentrations of PCE in site soil, groundwater and soil gas detected in the vicinity of the former dry cleaning operations exceeds the RWQCB commercial ESLs for potential vapor intrusions concerns. The highest concentrations of PCE in all three media is centered in the vicinity of the former dry cleaning operation.

The maximum concentrations of the PCE breakdown products TCE and cis-1,2-DCE from all samples taken are at or below their respective ESLs for soil, groundwater and soil gas. Petroleum hydrocarbon constituents detected in soil gas samples are below their respective ESLs.

Based on the concentration of the PCE detected in site soil, groundwater and soil gas compared to Environmental Screening Levels (ESLs) for the evaluation of potential vapor intrusions concerns, further site specific evaluation is likely to assess if a threat to the workers or customers of the facility exist.

## VIII. REPORT LIMITATIONS

The work described in this report is performed in accordance with the Environmental Consulting Agreements between CW Investment Group and AllWest Environmental, Inc, dated October 21, 2005. AllWest has prepared this report for the exclusive use of CW Investment Group for this particular project and in accordance with generally accepted practices at the time of the work. No other warranties, certifications or representation, either expressed or implied are made as to the professional advice offered. The services provided CW Investment Group were limited to their specific requirements; the limited scope allows for AllWest to form no more than an opinion of the actual site conditions. No matter how much research and sampling may be performed the only way to know about the actual composition and condition of the subsurface of a site is through excavation.

The conclusions and recommendations contained in this report are made based on observed conditions existing at the site, laboratory test results of the submitted samples, and interpretation of a limited data set. It must be recognized that changes can occur in subsurface conditions due to site use or other reasons. Furthermore, the distribution of chemical concentrations in the subsurface can vary spatially and over time. The results of chemical analysis are valid as of the date and at the sampling location only. AllWest cannot be held accountable for the accuracy of the test data from an independent laboratories nor for any analyte quantities falling below the recognized standard detection limits for the method utilized by the independent laboratories.

C:\Admin\Reports\2K5\25255.23\01.13.05\25255.23 REPORT - PH III Park Cleaners.wpd

## TABLES

#### TABLE 1

#### SUMMARY OF SOIL ANALYTICAL RESULTS

#### 1815 Park Blvd Oakland, California AllWest Project No. 25255.23

Sample ID	Sample Date	Sample Depth (Feet)	PCE	TCE	All other VOCs
SB-1-4'	1/12/05	3-4	ND (<5 ppb)	ND (<5)	ND
SB-2-5'	1/12/05	4-5	86 ppb	ND (<5)	ND
SB-3-4'	1/12/05	3-4	6.3 ppb	ND (<5)	ND
SB-4-4'	3/14/05	3-4	3,100 ppb	ND (<200)	ND
SB-5-4'	3/14/05	3-4	510 ppb	ND (<33)	ND
SB-6-3'	3/14/05	2-3	23 ppb	ND (<5)	ND
AWB-1-4'	5/24/05	3-4	490 ppb	ND (<16)	ND
AWB-1-8'	5/24/05	7-8	ND (<5 ppb)	ND (<5)	ND
AWB-2-4'	5/24/05	3-4	2,200 ppb	ND (<250)	ND
AWB-2-8'	5/24/05	7-8	ND (<5) ppb	ND (<5)	ND
AWB-10-2'-3'-S'	11/14/05	2-3	43	ND (<5)	ND
RWQCB ESLs	Commercial		240 ppb	730 ppb	
Table E-1b					

Notes:

1. PCE= tetrachloroethene

2. TCE = trichloroethene

- 3. VOCs = Volatile Organic Compounds
- 4. Sample concentrations are in units of micro grams per kilogram (µg/kg), equivalent to parts per billion (ppb).

5. ND = Not detected at or above the laboratory method reporting limit (MRL).

- 6. Analytical methods for VOCs were by U.S. EPA method 8260B. Analytical results reported by STL Analytical, Inc. and McCampbell Analytical, Inc.
- 7. Samples identified with SB were collected by AEI Consultants, Samples identified with AWB were collected by AllWest Environmental
- 8. NA = Not analyzed.
- 9. RWQCB ESL =San Francisco Bay Regional Water Quality Control Board, Environmental Screening Levels (2005), Table E-1b For Evaluation of Potential Vapor Intrusion Concerns for Ccommercial Industrial Exposure

#### TABLE 2

#### SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

#### 1815 Park Blvd Oakland, California

Sample ID	Sample Date	PCE	TCE	cis-1,2-DCE	All other VOCs
SB-1W	1/12/05	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
SB-2W	1/12/05	13	ND (<0.5)	ND (<0.5)	ND (<0.5)
SB-3W	1/12/05	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
SB-4W	3/14/05	230	14	25	vinyl chloride @ 7.6
SB-5W	3/14/05	7.9	ND (<0.5)	ND (<0.5)	ND (<0.5)
SB-6W	3/14/05	1.5	ND (<0.5)	0.54	ND (<0.5)
AWB-1W	5/24/05	67	13	14	vinyl chloride @ 1.3
AWB-2W	5/24/05	77	4.2	7.1	vinyl chloride @ 9.6
AWB-3W	5/24/05	1.2	ND (<0.5)	0.86	chloroform @ 4.8
AWB-4W	5/24/05	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (varies)
AWB-5W	5/24/05	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (varies)
AWB-6W	5/24/05	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (varies)
AWB-7W	11/14/05	25	0.62	0.89	vinyl chloride @ 1.1
AWB-8W	11/14/05	70	1.7	3.4	vinyl chloride @ 23
AWB-9W	11/14/05	3.6	0.50	1.2)	vinyl chloride @1.2
AWB-10W	11/15/05	1.8	ND (<0.5)	ND (<0.5)	vinyl chloride @ 1.9
AWB-11W	11/14/05	ND (<0.5)	ND (<0.5)	0.54	ND (varies)
RWQCB ESLs -Table E-1a	Commercial	170	690	5,400	varies

#### AllWest Project No, 25255.23

Notes:

- 1. PCE= tetrachloroethene
- 2. TCE = trichloroethene
- 3. cis-1,2-DCE = cis-1,2-dichloroethene
- 4. VOCs= Volatile Organic Compounds
- 5. Concentrations for groundwater analyses are in units of µg/L equivalent to parts per billion (ppb).
- 6. ND = Not detected at or above the laboratory method reporting limit (MRL) as indicated in the parenthesis.
- 7. Analytical methods for VOCs were by U.S. EPA method 8260B. Analytical results reported by STL Analytical, Inc and McCampbell Analytical, Inc..
- 8. Samples identified with SB were collected by AEI Consultants and samples identified with AWB were collected by AllWest Environmental;

9. RWCB ESLs =San Francisco Bay Regional Water Quality Control Board, Environmental Screening Levels, Table E-1a (2005) for Evaluation of Potential Vapor Intrusion Concerns, Commercial/Industrial Use, Low Permeability soil.

#### TABLE 3

#### SUMMARY OF SOIL GAS ANALYTICAL RESULTS

#### 1815 Park Blvd Oakland, California

#### AllWest Project 25255.23

Sample ID	Sample Date	PCE	TCE	Toluene	2-propanol	All other VOCs
AWSG-1	11/15/05	59,000	1,200	1,800	ND (<400)	Varies
AWSG-2	11/15/05	78	ND (<16)	2,500	58	Varies
AWSG-3	11/15/05	9,400	ND (<42)	30	ND (<77)	Varies
RWQCB -Table E, Shallow Soil Gas Screening Levels, Commercial/Industrial Land Use	-	1400	4100	180,000	NL	Varies

Notes:

- 2. TCE = trichloroethene
- 3. cis-1,2-DCE = cis-1,2-dichloroethene
- 4. VOCs= Volatile Organic Compounds
- 5. RWQCB = Regional Water Quality Control Board,San Francisco Bay Region , Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater , 2005, Table E Environmental Screening Levels, Indoor Air and Soil Gas
- 6. Concentrations for soil gas analyses are in units of micro-grams per cubic meter(µg/m3).
- 7. ND = Not detected at or above the laboratory method reporting limit (MRL) as indicated in the parenthesis.
- 8. NL = Not listed
- 9. Analytical methods for VOCs were by U.S. EPA method TO-15. Analytical results reported by Air Toxics LTD.

<sup>1.</sup> PCE= tetrachloroethene

# Table 4Sensitive Receptor SurveyWash Time CleanersOakland, CaliforniaProject Number 25255.23

Map ID	Site Name/Address	Site Use	Sensitive Receptor (Y/N)	Comments
1	Woody's Laundromat- 1841 Park	Coin Laundromat	N	No dry cleaning performed
2	Communications Workers of America 1831 Park	Office Building	Ν	
3	AM Printing - 1825 Park	Retail	N	
3	Natural Aquarian 1823 Park	Pet Store	N	
3	Personal Touch - 1823 Park	Hair Salon	N	
3	Tops Sports Ware -1819 Park	Retail Sales	N	
4	Wireless Phone	Retail Sales	N	
4	Beauty Hair & Nails -1809 Park	Beauty Salon	N	
4	Psychic Reading - 1805 Park	Personnel Service	N	
4	HR Block - 1801 Park	Office - Tax Prepare	N	
5	Carriage Trade Liquors -350- East 18th	Retail Sales	Ν	
6	Lake Side Lounge - 338 East 18th	Bar	N	
7	Fish & Chips - 326 East 18th	Restaurant	N	
7	About Beauty - 324 East 18th	Beauty Salon	N	
8	Check Cashing - 300 East18th	Retail Service	N	
8	El Omda Café - 300 East 18th	Restaurant	N	
9	Albertson	Retail Food Store	N	
10	Walgreen's	Drug Store	N	
11	Chuckey's Chicken	Restaurant	N	
12	Pharmacy & Doctors Offices - 401 East 18th	Retail Sales & Professional Offices	Ν	
13	Deli/Grocery	Retail Sales	Ν	
14	Apartments	Multi-Family Housing	Ν	Multi-story
15	Kragens Auto Supply	Retail Sales	Ν	2-story office
16	Movie Theater - 1834 Park	Movie Theater	Ν	
16	Jackson -Hewitt - 1840 Park	Office - Tax Preparer	N	
17	Parkway Lounge - 1859 Park	Bar	N	
17	South China Restaurant - 1852 Park	Restaurant	Ν	
18	Apartments - 415 East 19th	Multi-Family Housing	N	
19	Auto Repair	Auto Repair	N	Former Gasoline Station, No monitoring wells observed
20	Lake Shore Convalescent Hospital, 1901 3rd Ave	Convalescent Hospital	Y	Site is up and cross gradient from site
21	Apartments - 329 Wayne	Multi-Family Housing	N	Multi-story
22	Apartments - 1815 3rd Ave	Multi-Family Housing	N	Multi-story
23	Apartments - 3rd Ave	Multi-Family Housing	N	Multi-story
24	Natural Hair Zone-1809 3rd Ave	Beauty Salon	N	Multi-story
24	Optometrist 1807 3rd Ave	Professional Office	N	
25	Real Estate Office - 1803 3rd Ave	Office	N	
25	Beauty Salon	Beauty Salon	N	
25	French Unique Cleaners-290 East 18th	Dry Cleaners	Ν	Possible active Dry Cleaners

## FIGURES





## LEGEND

QMS - MERRITT SAND QMT - MARINE TERRACE QPAF - PLEISTOCENE ALLUVIAL FAN AF - ARTIFICIAL FILL ★ - SITE

N		GEOLOGIC MAP
	AllWest	FIGURE 2
		1815 PARK BOULEVARD
T		OAKLAND, CALIFORNIA
	PROJECT NO.	SOURCE: OAKLAND GEOLOGY: LAKE MERRITT
	25255.23	PREPARED BY: DAWN ZAMORA (12/16/05)











## Appendix A

## STANDARD GEOPROBE SAMPLING PROCEDURES

#### Soil Sampling

Soil core sampling is accomplished using a nominal 4-foot long, 3-inch diameter galvanized steel drive probe and extension rods. The drive probe is equipped with nominal 1-1/2 inch diameter clear plastic poly tubes that line the interior of the probe. The probe and insert tubes are together pneumatically driven using a percussion hammer in 4-foot intervals. After each drive intervals the drive probe and rods are retrieved to the surfaced. The poly tube containing subsurface soil is then removed. The drive probe is then cleaned, equipped with a new poly tube and reinserted into the boring with extension rods as required. The apparatus is then driven following the above procedure until the desire depth is obtained. The poly tubes and soil are inspected after each drive interval with lithologic and relevant drilling observations recorded. Soil samples are screened for organic vapors using an organic vapor meter (OVM) or other appropriate device. OVM readings, soil staining and other relevant observations are recorded. Selected soil samples intervals can be cut from the 4-foot intervals for possible analytical or geotechnical testing or other purposes.

The soils contained in the sample liners are then classified according to the Uniform Soil Classification System and recorded on the soil boring logs.

Each sample liner selected for laboratory analyses are sealed with Teflon sheets, plastic end caps, and silicon tape. The sealed sample liner is then labeled, sealed in a plastic bag, and placed in an ice chest cooled to 4°C with crushed ice for temporary field storage and transportation. The standard chain-of-custody protocol is maintained for all soil samples from the time of collection to arrival at the laboratory.

#### **Groundwater Sampling**

Groundwater sampling is performed after the completion of soil sampling and when the boring has reached its desired depth. The steel probe and rods are then removed from the boring and new, nominal 1-1/2 inch diameter PVC solid and perforated temporary casing is lowered into the borehole. Depth to water is then measured using an electronic groundwater probe. Groundwater samples will be collected using a stainless steel bailer or a Teflon disposable bailer.

After the retrieval of the bailer, groundwater samples contained in the bailer are decanted into laboratory provided containers. The containers are then sealed with Teflon coated caps with no headspace, labeled, and placed in an ice chest for field storage and transportation to a state certified analytical laboratory. The standard chain-of-custody protocols are followed from sample collection to delivery to the laboratory. A new bailer is used for each groundwater sampling location to avoid cross contamination.

## UNIFIED SOIL CLASSIFICATION SYSTEM

	PRIMARY DIVISION	5	GROUP SYMBOL	SECONDARY DIVISIONS
с	GRAVELS	Clean gravels (less than 5% of fines)	GW	Well graded gravel-sand mixtures, little or no fines.
0 A	More than half of		GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
S E	larger than No. 4 sieve.	Gravel with fines	GM	Silty gravels or gravel-sand-silt mixtures, with non-plastic fines.
G R			GC	Clayey gravels or gravel-sand-clay mixtures, with plastic fines.
A I	SANDS	Clean sands (less than 5% of fines)	sw	Well graded sands or gravelly sands, little or no fines.
ED	More than half of		SP	Poorly graded sands or gravelly sands, little or no fines.
s	smaller than No. 4 sieve.	Sands with fines	SM	Silty sands or sand-silt mixtures, with non- plastic fines.
1 L			SC	Clayey sands or sand-clay mixtures, with plastic fines.
F	F SILTS AND CLAYS N Liquid Limit less than 50% E		ML	Inorganic silts and very fine sands, rock flour, or clayey silts, with slight plasticity.
l N E			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
GRO	G R			Organic silts and organic silty clays of low plasticity.
I N E	SILTS AND CLAY	s	мн	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
DS	Liquid Limit greater than 50%		СН	Inorganic clays of high plasticity, fat clays.
011				Organic clays of medium to high plasticity, organic silts.
Н	IGHLY ORGANIC SOILS		PT	Peat and other highly organic soils.

## BORING LOG LEGEND

Sampler Drive Interval

Relatively Undisturbed Sample Recovered and Preserved

Sampler Driven, No Sample Recovery

Disturbed Sample Recovered and Preserved

			an System	
All West All West Environmental, Inc.	Log of Bor Project Ac Project Nu Drilling Da	ring: Idress: Imber: ate:	AW 1×815 252 11/1	B-7 Park Boulcuard, Oakland CA-
Drilling Contractor: Drill Rig: Location:	Vironex Direct Pusi Wach Time	n Geopro	be omat	Sampler: <u>1'%</u> polytube Logged By: Michael L, Siembiela RG-4007
Sample OVM San Time Reading Inte	nple Depth in rval Feet	Sample Number	USCS Code	Soil Description
3:25	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Poor recurry 7-8'	CL 709'	Fill CLAY - brown, moist, so Ft - some sand + bravel (peor recoverig) CLAY - Dark bluish gray, so Ft, wet - some sand + browd TD ?' - boring back Filled ul coment growt TD ?' - boring back Filled ul coment growt Reviewed By: Drawn By:

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AllWest Environmental, Drilling Contract Drill Rig: Location:	Project A Project N Drilling D OF: Vironex Direct Pus WashTim	ddress: umber: ate: sh Geopro	1815 25 11/1 be	5 Park Boulcuard, Oakland CA- 255.23 14105 Sampler: <u>1'4"</u> polytube Logged By: Michael L. Siembiela RG-4007
Sample OVM Time Reading	Sample Depth Interval Feet	Sample Number	USCS Code	Soil Description
3, ∞	$ \begin{array}{c} 1 \\ 2 \\ 3 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ -$	1 Poor tecourry 1 7-8	CL TDA	Concrete 4-5" Fill CLAY - brown, SOFt, very moist - some sand + gravel (poor recovery) - some large gravel CLAY - Very dark blunch gray, Wet, SOFT - some sand tgravel Boring back Filled with convent grunt Groundwater C. 6. 2' 
Notes:				Reviewed By: Drawn By: I J. K. M. Tingin
				an a

Image: Street 1 of 2     Street 1 of 2       Project Address:     1915 Park Boulcuard, Oakland Ca <sup>-1</sup> Project Address:     1915 Park Boulcuard, Oakland Ca <sup>-1</sup> Project Number:     25255.25       Drilling Contractor:     Vireax       Drilling Contractor:     Vireax       Sample     Drever Push Geoprobe     Sample:       Image: Cover Sample     Depth in Freet Number     Sample Code       Sample Cover Sample     Depth Sample     USCS       Sample Cover Sample     Code     Soil Description       Project Address:     1     Code       Sample Cover Sample     Depth Sample     USCS       Sample Cover Sample     Code     Soil Description       Project Address:     1     Code       Sample Cover Sample     Depth Sample     USCS       Soil Description     Soil Description       Soil Description     Soil Description       Soil Clay:     Soil Description       Soil Description     Soil Description						s e Soo		in to the state	
Drilling Contractor:       Viron ex       Sampler:       1/4 ° polytube         Drill Rig:       Direct Push Geoprobe       Logged By:       Michael L, Siembiela R6-4007         Location:       Wach Time Loundow at       Sample       USCS       Soil Description         Sample       OVM       Sample interval       Peet       Soil Description         Image: Time       Reading interval       Peet       Soil Description         2:25       1       -       -       Fill         2:25       1       -       -       -         3       -       -       -       -         4       -       -       -       -         5       -       -       -       -         6       -       -       -       -         7       -       -       -       -         8       -       -       -       -         10       -       -       -       -         11       -       -       -       -         12       -       -       -       -         13       -       -       -       -         14       -       -			st	Log of Bo Project Ac Project Nu Drilling Da	ring: idress: umber: ate:	AW 1×815 252 11/1	B-9 Park Boulcuard, Oak 155.23 14105	land CA-	Sheet 1 of 2
Sample Time Reading         Depth Interval         Sample Feet         Depth Number         Sample Code         Soil Description           2:25         1         - <td>Drilling Drill Ri Locatio</td> <td>gContrac g: cn:</td> <td>tor: V</td> <td>lironex Direct Pus Nach Time</td> <td>h Geopro Lamdu</td> <td>be omat</td> <td>Sampler: <u>1'%</u>polytube Logged By: Michael L, S</td> <td>e iembiela 1</td> <td>26-4007</td>	Drilling Drill Ri Locatio	gContrac g: cn:	tor: V	lironex Direct Pus Nach Time	h Geopro Lamdu	be omat	Sampler: <u>1'%</u> polytube Logged By: Michael L, S	e iembiela 1	26-4007
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sample Time	OVM Reading	Sampi Interva	e Depth in Feet	Sample Number	USCS Code	Soil Descri	ption	
Libberto and a second sec	2.25			$     \begin{array}{c}       1 \\       2 \\       - \\       3 \\       - \\       4 \\       - \\       5 \\       - \\       6 \\       - \\       7 \\       - \\       8 \\       - \\       9 \\       - \\       10 \\       - \\       10 \\       - \\       10 \\       - \\       10 \\       - \\       11 \\       - \\       12 \\       - \\       13 \\       - \\       14 \\       - \\       15 \\       - \\       16 \\       17 \\       18 \\       19 \\       20 \\       21 \\     \end{array} $		CL TD-9'	Fill CLAY- brown, molthed a SoFt. moist, sandy (poor recovery) Very SoFt CLAY - Dark Gray, Ve Boring back Filled with	Reviewed By:	el

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All West All West Environmental, Inc.	Log of Bo Project Ac Project Nu Drilling Da	ring: Idress: Imber: ate:	AW 1.815 25, 11/1	B-10 Park Boulcuard, Oakland CA-` 155.23 14105
Drilling Contractor: Drill Rig: Location:	Vironex Direct Pus WashTime	n Geopro	be mat	Sampler: <u>1'%</u> polytube Logged By: Michael L, Siembiela RG-4007
Sample OVM Sam Time Reading Inter	ple Depth in val Feet	Sample Number	USCS Code	Soil Description
	$     \begin{array}{c}       1 \\       2 \\       - \\       3 \\       - \\       4 \\       - \\       5 \\       - \\       6 \\       - \\       7 \\       - \\       8 \\       - \\       9 \\       - \\       10 \\       - \\       10 \\       - \\       10 \\       - \\       11 \\       - \\       12 \\       - \\       13 \\       - \\       14 \\       - \\       15 \\       - \\       16 \\       - \\       17 \\       - \\       18 \\       19 \\       20 \\       21 \\     \end{array} $	4-5	CL CL TD-9'	Fill CLAY - Dark brown, soFt, sandy - some gravel, wet - some gravel, wet - some gravel to 1" Borny back Filled as the comple grant Grand walke @ 5.7' Foot 
Notes:				J. K. M. Tingi

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		st.	Log of Bo Project Ao Project Nu Drilling Da	ring: idress: umber: ate:	AW 1.815 252 11/1	B-11 Park Boulcuard, Oakland CA- 55.23 4105
Drilling Drill Ri Locatio	g: g: cn:	tor: V E	lironex Direct Pus NachTime	h Geopro Lamdu	be omat	Sampler: <u>1%</u> polytube Logged By: Michael L. Siembiela RG-4007
Sample Time	OVM Reading	Sampl Interva	e Depth in il Feet	Sample Number	USCS Code	Soil Description
1:10			$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Pour tcoury 1 3-9'	CL CL TDA'	Concrete 5" Fill CLAY - brown, moist, soft, sandy, Silty (par recovery) - (No recovery - blocked) (sampling shoe CLAY - Dark blaish gray - soft, wet plastic, slight Fetia odor Boring back fill with commingraut Ground ugter @ S, 2 '
Notes	5:					Reviewed By: Drawn By: 1 J. K. M. Tingin

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# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved Permits Issued:	on: 11/01/2005 By jamesy W2005-1085	Receipt Number: WR2005-2173 Permits Valid from 11/14/2005 to 11/1	5/2005
Application Id: Site Location:	1130876571976 1815 Park Blvd (Wash Time Laundromat)	City of Project Site:Oakland	
Project Start Date:	Oakland, CA 94606 11/14/2005	Completion Date:11/15/2005	
Applicant:	AllWest Environmental - Mike Siambieda	Phone: 415-391-2510	
Property Owner:	Mr. Stephen Wong, C. W. Investment Group 132 9th St #200, Oakland, CA, 94067	Phone: 510-891-9060	
Client:	** same as Property Owner **		
		Total Due: Total Amount Paid:	\$200.00 \$200.00

Paid By: CHECK

#### Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 5 Boreholes Driller: Vironey - Lic #: 705927 - Method: other

Work Total: \$200.00

PAID IN FUI

#### Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2005- 1085	11/01/2005	02/12/2006	5	2.00 in.	51.00 ft

#### **Specific Work Permit Conditions**

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Applicant shall contact George Bolton for an inspection time at 510-670-5594 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

6. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

PUBLIC WORKS urcas

ALAMEDA COUNTY PUBLIC WORKS AGENCY Water Resources Section, Attn: James Yoo 399 Elmhurst Street, Hayward, CA 94544-1395 Phone: (510) 670-6633 Fax: (510) 782-1939 General Info: www.acgov.org/pwa/wells or email at wells@acpwa.org

Clock Fo 200 25-255-23

# DRILLING PERMIT APPLICATION

Applicants: Please attach a site map for all drilling permit applications.

Location of Project:	815 Park 1	sivel (wa	sh Time L	aundro m	at)	
	Jak land	CA				
City	1 . F	D		1115	105	
Project start date:	14[05	Proj	ject completion of	late:		
PROPERTY OWNER	Mr. Stophen W	long	APPLICAN	r Michael	L. Siembie	Qu 76-4007
Name: (.W.	Investment (	naup_	Name:	Au Au	West, Envi	100 menter
Address: 132	Ninth Stre	et \$ 200	Address:	530	Howerd S	+ 300
City, State, Zip: Ou	Klund (A	14067	City, State, Z	ip: <u>Sav</u>	FIGMEISCO	<u>(A 1910</u> )
Phone: <u>510</u> -	891-9060		Phone:	<u>- 415-</u>		- 57 I. (OM
E-mail Address: Step	ren. Worg 4		cc F-mail Ad	dress		
amb	er investme	nt. com				
The set of Developer		WORK CA	ATEGORIES			
Type of Project	Well Construction	n	Geotechnical	Investigation		
	Cathodic Protectio		General			
	Water Supply	" 🖬	Contamination	□ <b>⊠</b>		Í
	Monitoring		Well Destruct	ion		
Proposed Water Supply	Well Use					
New Domest	ic 🗌	Industrial		eplacement Dom	estic	
Municipal		Irrigation		ther		
Drilling Method						
Mud Rotary		Air Rotary	, 19	A	iger	
Cable		Other Orop	<u></u>			
Driller's Name: VI.	A.M. 84		Driller's	License No.:	105927	
Son	Leander , CA	WELL	PROJECTS			
	Drill Hole	Casing	Surface Seal	Max. Depth		Landa
Owner Well ID	Diameter (in.)	Diameter (in.)	Depth (ft.)	(ft.)	Latitude	Longitude
1						<u> </u>
2						1
3						
4						ļ
6						
					OFCES	
G	EOTECHNICAL	/ENVIRONME	NTAL/CONTA	MINATION PR	Max. Deuth (	ft.)
Number of B	oreholes	Hole Dia	meter (m.)		12'	
I (AWB & -> AWB-	$\frac{11}{12}$	2"	Soil (us Pish	2	51	
1- AW 56-1, HW	21111	1.8				
Applicant's Signature	questil	march_	App	roved by:		
	P.6-4	007	0	~ 11/1/05		
				1130 67 60	7/47	
					11116	

ALLWESTLENVIRONME	NTAL	TRANS-PACIFIC 44 SE	HATIONAL BANK	6000
SAN FRANCISCO, CA 94	105 yr faraini yr	11-406	5/1210	0/1/2005
				200 00
PAY TO THE Alameda County Public Wo ORDER OF	rks Agency		Þ	200.00
Two Hundred and 00/100************	**********	*************	********	DOLLARS
Alameda County Public Works Water Resources Section ATTN: James Yoo 399 Elmhurst Street Hayward, CA 94544-1395 25255.23	Agency		hand	
"OOEOOO	* :121040651:	01 207895	• 0	
ALLWEST ENVIRONMENTAL Alameda County Public Works Ag 359 · Sub-Contractors	gency 25255.23	,	10/1/2005	600 200.00
Bank-General Account 25255.23				200.00
ALLWEST ENVIRONMENTAL				
Alameda County Public Works A 359 · Sub-Contractors	gency 25255.23		10/1/2005	60C 200.00
-				

191572 (5/03)

# Appendix B



All West Environmental, Inc	Client Project ID: #25255.23; Park Blvd #	Date Sampled:	11/14/05
530 Howard Street, Ste. 300	III	Date Received:	11/16/05
San Francisco, CA, 94105	Client Contact: Mike Siembieda	Date Reported:	11/21/05
San Handisco, CA 94105	Client P.O.:	Date Completed:	11/21/05

#### WorkOrder: 0511331

November 21, 2005

Dear Mike:

Enclosed are:

- 1). the results of 6 analyzed samples from your #25255.23; Park Blvd # III project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill 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 please contact me. McCampbell Analytical Laboratories strives for excellence

in quality, service and cost. Thank you for your business and I look forward to working with you again.

ruly Yours

Angela Rydelius, Lab Manager

McCampbell An	alytical, Inc	2.	110 2nd Aven. Telephone : Website: www.mcca	th, #D7, Pacheco, C 925-798-1620 Fax : 92: unpbell.com E-mail: mair	A 94553-5560 5-798-1622 n@mccampbell.	com	
All West Environmental, Inc	Client P	roject ID: #2	: #25255.23; Park Date Sampled: 11/14/05-11/15/05				
530 Howard Street Ste 300	Blvd # I	II		Date Received:	11/16/05		
	Client C	ontact: Mike	Siembieda	Date Extracted:	11/18/05		
San Francisco, CA 94105 Client P.O.: Date Analyzed:							
Halogenated	Volatile Organi	s by P&T ar	Id GC-MS (8010 B	asic Target List)	*		
Extraction Method: SW5030B	Ал	alytical Method: SV	V8260B	Ç ,	Work Ord	er: 0511331	
Lab ID	0511331-001A	0511331-00	2A 0511331-003A	0511331-004A			
Client ID	AWB-7-W	AWB-8-W	AWB-9-W	AWB-10-W	Reporting DF	; Limit for ? =1	
Matrix	w	w	w	w			
DF	1	2.5	1	1	s	w	
Compound		C	ncentration		µg/kg	μg/L	
Bromodichloromethane	ND	ND<1.2	ND	ND	NA	0.5	
Bromoform	ND	ND<1.2	ND	ND	NA	0.5	
Bromomethane	ND	ND<1.2	ND	ND	NA	0.5	
Carbon Tetrachloride	ND	ND<1.2	ND	ND	NA	0.5	
Chlorobenzene	ND	ND<1.2	ND	ND	NA	0.5	
Chloroethane	ND	ND<1.2	ND	ND	NA	0.5	
2-Chloroethyl Vinyl Ether	ND	ND<2.5	ND	ND	NA	1.0	
Chloroform	ND	ND<1.2	ND	ND	NA	0.5	
Chloromethane	ND	ND<1.2	ND	ND	NΛ	0.5	
Dibromochloromethane	ND	ND<1.2	ND	ND	NA	0.5	
1,2-Dichlorobenzene	ND	ND<1.2	ND	ND	NA	0.5	
1,3-Dichlorobenzene	ND	ND<1.2	ND	ND	NA	0.5	
1,4-Dichlorobenzene	ND	ND<1.2	ND	ND	NA	0.5	
Dichlorodifluoromethane	ND	ND<1.2	ND	ND	NA	0.5	
1,1-Dichloroethane	ND	ND<1.2	ND	ND	NA	0.5	
1,2-Dichloroethane (1,2-DCA)	ND	ND<1.2	ND	ND	NA	0.5	
1,1-Dichloroethene	ND	ND<1.2	ND	ND	NA	0.5	
cis-1,2-Dichloroethene	0.89	3.	4 1.2	ND	NA	0.5	
trans-1,2-Dichloroethene	ND	ND<1.2	ND	ND	NA	0.5	
1,2-Dichloropropane	ND	ND<1.2	ND	ND	NA	0.5	
cis-1,3-Dichloropropene	ND	ND<1.2	ND	ND	NA	0.5	
trans-1,3-Dichloropropene	ND	ND<1.2	ND	ND	NA	0.5	
Mcthylene chloride	ND	ND<1.2	ND	ND	NA	0.5	
1,1,2,2-1 etrachloroethane	ND	ND<1.2	ND	ND	NA	0.5	
1 etrachioroethene	25	7	3.6	1.8	NA	0.5	
1,1,1-1 Treisblarathana	ND	ND<1.2	ND	ND	NA		
Trichloroethane	ND 0.62	ND<1.2	7 0.50	ND	NA NA	0.5	
Trichlorofluoromethana	V.02	ND-1.2	<u>/ 0.50</u>	ND ND	NA	0.5	
Vinyl Chloride	11	31				0.5	
- myr canorao	1.1	Z.	1.Z	1.9	INA	0.3	
%\$\$1:	105	102	ETIES (%)	107			
/0331.	105	102	104	10/			
%882:	95	97	99	98	1. 1. J. J. J. J.		
%SS3:	90	86	100	99			
Comments	i	i	i	i			
* water and vapor samples are reported in µg	/L, soil/sludge/solid	samples in mg/ks	, product/oil/non-aqueou	is liquid samples and a	II TCLP & S	PLP	

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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than  $\sim 1$  vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) sequenced due to narrative.

McCampbell Analytical, Inc.			110 2nd Ave Telephor Website: www.n	enath, #D7, Pacheco, C ne : 925-798-1620 Fax : 92 nocampbell.com E-mail: mai	A 94553-5560 5-798-1622 n@mccampbell.	com	
All West Environmental, Inc	Client Pr	roject ID: #2.	5255.23; Park	Date Sampled:	11/14/05-	11/14/05-11/15/05	
520 Unward Streat Sta 200	Blvd # I	П	Date Received:	11/16/05			
550 floward Succi, Sic. 500	Client C	ontact: Mike	Siembieda	Date Extracted:	11/18/05		
San Francisco, CA 94105	Client P.	0.:		Date Analyzed:	11/18/05		
Halogenated Extraction Method: SW5030B	Volatile Organic An	s by P&T and alytical Method: SW	d GC-MS (8010 8260B	Basic Target List)	* Work Ord	er: 0511331	
Lab ID	0511331-005A						
Client ID	AWB-11-W				- Reporting DF	Limit for =1	
Matrix	W					1	
DF	1				s	w	
Compound		Co	ncentration		µg/kg	μg/L	
Bromodichloromethane	ND				NA	0.5	
Bromoform	ND				NA	0.5	
Bromomethane	ND				NA	0.5	
Carbon Tetrachloride	ND				NA	0.5	
Chlorobenzene	ND				NA	0.5	
Chloroethane	ND				NA	0.5	
2-Chloroethyl Vinyl Ether	ND		<u> </u>		NA	1.0	
Chloroform	ND				NA	0.5	
Chloromethane	ND				NA	0.5	
Dibromochloromethane	ND				NA	0.5	
1,2-Dichlorobenzene	ND				NA	0.5	
1,3-Dichlorobenzene	ND				NA	0.5	
1,4-Dichlorobenzene	ND				NA	0.5	
Dichlorodifluoromethane	ND				NA	0.5	
1,1-Dichloroethane	ND				NA	0.5	
1,2-Dichloroethane (1,2-DCA)	ND				NA	0.5	
1.1-Dichloroethene	ND				NA	0.5	
cis-1.2-Dichloroethene	0.54				NA	0.5	
trans-1,2-Dichloroethene	ND				NA	0.5	
1,2-Dichloropropane	ND				NA	0.5	
cis-1,3-Dichloropropene	ND				NA	0.5	
trans-1,3-Dichloropropene	ND				NA	0.5	
Methylene chloride	ND				NA	0.5	
1,1,2,2-Tetrachloroethane	ND				NA	0.5	
Tetrachloroethene	ND				NA	0.5	
1,1,1-Trichloroethane	ND				NA	0.5	
1,1,2-Trichloroethane	ND				NA	0.5	
Trichloroethene	ND				NA	0.5	
Trichlorofluoromethane	ND				NA	0.5	
Vinyl Chloride	ND				NA	0.5	
	Su	rrogate Recove	ries (%)				
%\$\$1:	107						
%SS2:	95						
%\$\$3:	96						
78555.	90						
Champion and a							

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than  $\sim 1$  vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) set attached narrative.

McCampbell An	alytical, Inc			110 2nd Aver Telephone Website: www.me	nuth, #D7, Pacheco, C e : 925-798-1620 Fax : 92 ccampbell.com E-mail: mai	A 94553-5560 5-798-1622 n@mccampbell.c	om
All West Environmental, Inc	Client P	roject ID:	#2525	5.23; Park	Date Sampled:	11/14/05	
	Blvd # I	Blvd # III		Date Received:	11/16/05		
530 Howard Street, Ste. 300	Client C	ontact: M	ike Sien	nbieda	Date Extracted:	11/16/05	
San Francisco, CA 94105	Client P				Date Analyzed:	11/17/05	
		a has D C 7		C ME (0010	Desis Terrent List)	4	
Extraction Method: SW5030B		alytical Metho	d: SW8260	B	Dasic Target List)	Work Orde	г: 0511331
Lab ID	0511331-006A					Reporting	Limit for
Client ID	AWB-10-2-3-5					DF	=1
Motrix	S						
	3					s	w
DF	1						
Compound		1	Conce	ntration		mg/kg	µg/L
Bromodichloromethanc	ND					0.005	NA
Bromoform	ND					0.005	NA
Bromomethane	ND		1			0.005	NA
Carbon Tetrachloride	ND					0.005	NA
Chlorobenzene	NÐ					0.005	NA
Chloroethane	ND					0.005	NA
2-Chloroethyl Vinyl Ether	ND					0.005	NA
Chloroform	ND					0.005	NA
Chloromethane	ND					0.005	NA
Dibromochloromethane	ND					0.005	NA
1,2-Dichlorobenzene	ND		1			0.005	NA
1,3-Dichlorobenzene	ND					0.005	NA
1,4-Dichlorobenzene	ND					0.005	NA
Dichlorodifluoromethane	ND					0.005	NA
1,1-Dichloroethane	ND					0.005	NA
1,2-Dichloroethane (1,2-DCA)	ND					0.005	NA
1,1-Dichloroethene	ND					0.005	NA
cis-1,2-Dichloroethene	ND					0.005	NA
trans-1,2-Dichloroethene	ND					0.005	NA
1,2-Dichloropropane	ND					0.005	NA
cis-1,3-Dichloropropene	ND					0.005	NA
trans-1,3-Dichloropropene	ND					0.005	NA
Methylene chloride	ND					0.005	NA
1,1,2,2-Tetrachloroethane	ND					0.005	NA
Tetrachloroethene	0.043					0.005	NA
1,1,1-Trichloroethane	ND					0.005	NA
1,1,2-Trichloroethane	ND					0.005	NA
Trichloroethene	ND					0.005	NA
Trichlorofluoromethane	ND					0.005	NA
Vinyl Chloride	ND					0.005	NA
	Su	rrogate Re	ecoveries	i (%)		· · · ·	
%881:	94						
%882:	97		·				
%SS3:	108					1	
<u>^</u>		1	I		1		

# surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than  $\sim 1$  vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



# QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil				QC Mat	trix: Soil			WorkOrder: 0511331				
EPA Method: SW8260B	E	xtraction	: SW5030	В	Batc	hID: 19038	3	Spiked Sample ID: 0511310-008A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance	e Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD		
Chlorobenzene	ND	0.050	99.9	99.7	0.224	100	93.5	6.82	70 - 130	70 - 130		
1,2-Dichloroethane (1,2-DCA)	ND	0.050	110	109	0.839	111	106	4.86	70 - 130	70 - 130		
1,1-Dichloroethene	ND	0.050	98.7	98.7	0	103	93.7	9.59	70 - 130	70 - 130		
Trichloroethene	ND	0.050	93.3	92.3	1.11	95.3	88.2	7.74	70 - 130	70 - 130		
%SS1:	98	0.050	98	100	2.00	100	98	1.14	70 - 130	70 - 130		
%SS2:	103	0.050	100	99	0.709	100	99	0.538	70 - 130	70 - 130		
%SS3:	104	0.050	107	104	2.05	102	105	2.77	70 - 130	70 - 130		
All target compounds in the Meth NONE	od Blank of thi	s extractior	batch were	e ND less th	an the method	RL with the	e following	exceptions:				

#### BATCH 19038 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511331-006A	11/14/05	11/16/05	11/17/05 1:44 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.

K

\_QA/QC Officer

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.

DHS Certification No. 1644



# QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0511331 EPA Method: SW8260B Extraction: SW5030B BatchID: 19058 Spiked Sample ID: 0511326-001A Sample Spiked MS MSD MS-MSD LCS LCSD LCS-LCSD Acceptance Criteria (%) Analyte % RPD % Rec. % Rec. µg/L µg/L % Rec. % Rec. % RPD MS / MSD LCS/LCSD Chlorobenzene ND 10 100 99.9 0.173 105 101 3.99 70 - 130 70 - 130 1,2-Dichloroethane (1,2-DCA) ND 10 109 109 0 112 111 70 - 130 1.10 70 - 130 1.1-Dichloroethene ND 10 97.7 96.9 103 0.838 101 1.79 70 - 130 70 - 130 Trichloroethene ND 10 93.8 93.2 0.699 98.5 96 2.52 70 - 130 70 - 130 104 10 101 %SS1: 101 0 101 100 1.02 70 - 130 70 - 130 96 10 %SS2: 98 97 1.07 99 99 0 70 - 130 70 - 130 92 %SS3: 10 102 104 1.88 105 108 3.09 70 - 130 70 - 130 All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 19058 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511331-001A	11/14/05	11/18/05	11/18/05 8:25 AM	0511331-002A	11/14/05	11/18/05	11/18/05 1:27 PM
0511331-003A	11/14/05	11/18/05	11/18/05 1:55 AM	0511331-004A	11/15/05	11/18/05	11/18/05 2:43 AM
0511331-005A	11/14/05	11/18/05	11/18/05 3:36 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.

QA/QC Officer

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.



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# Comments:

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



AN ENVIRONMENTAL ANALYTICAL LABORATORY

## WORK ORDER #: 0511347

Work Order Summary

CLIENT:	Mr. Michael Siembieda AllWest Environmental, Inc. 530 Howard St. Suite 300 San Francisco, CA 94105	BILL TO:	Mr. Michael Siembieda AllWest Environmental, Inc. 530 Howard St. Suite 300 San Francisco, CA 94105
PHONE:	415-391-2510	<b>P.O.</b> #	25255.23
FAX:	415-391-2008	PROJECT #	25255.23 Park Blvd-III
DATE RECEIVED:	11/17/2005	CONTACT:	Kyle Vagadori
DATE COMPLETED:	11/29/2005		

			KLULH I
FRACTION #	NAME	<u>TEST</u>	VAC./PRES.
01A	AWSG-1	Modified TO-15	5.5 "Hg
02A	AWSG-2	Modified TO-15	7.5 "Hg
02AA	AWSG-2 Duplicate	Modified TO-15	7.5 "Hg
03A	AWSG-3	Modified TO-15	7.5 "Hg
04A	Lab Blank	Modified TO-15	NA
05A	CCV	Modified TO-15	NA
06A	LCS	Modified TO-15	NA

CERTIFIED BY:

Sinda d. Fruman

DATE: <u>11/29/05</u>

DECEIDT

Laboratory Director

Certification numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004 NY NELAP - 11291, UT NELAP - 9166389892

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/05, Expiration date: 06/30/06

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

Page 1 of 19

# LABORATORY NARRATIVE Modified TO-15 AllWest Environmental, Inc. Workorder# 0511347

Three 6 Liter Summa Canister samples were received on November 17, 2005. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	TO-15	ATL Modifications
Daily CCV	+- 30% Difference	= 30% Difference with two allowed out up to </=40%.;<br flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

## **Receiving Notes**

There were no receiving discrepancies.

## Analytical Notes

The reported LCS for each daily batch has been derived from more than one analytical file.

The reported result for 4-Ethyltoluene in samples AWSG-1, AWSG-2 and AWSG-2 Duplicate may be biased high due to co-elution with a non target compound with similar characteristic ions. Both the primary and secondary ion for 4-Ethyltoluene exhibited potential interference.

## **Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

- J Estimated value.
- E Exceeds instrument calibration range.
- S Saturated peak.
- Q Exceeds quality control limits.
- U Compound analyzed for but not detected above the reporting limit.
- UJ- Non-detected compound associated with low bias in the CCV
- N The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

# Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

## Client Sample ID: AWSG-1

#### Lab ID#: 0511347-01A

	Rpt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Trichloroethene	41	230	220	1200
Toluene	41	490	150	1800
Tetrachloroethene	41	8600	280	59000
m,p-Xylene	41	110	180	500
4-Ethyltoluene	41	44	200	220
1,2,4-Trimethylbenzene	41	53	200	260

#### **Client Sample ID: AWSG-2**

#### Lab ID#: 0511347-02A

Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	3.0	3.8	6.6	8.5
Acetone	12	37	28	88
2-Propanol	12	24	29	58
2-Butanone (Methyl Ethyl Ketone)	3.0	3.5	8.8	10
Toluene	3.0	680	11	2500
Tetrachloroethene	3.0	11	20	78
Ethyl Benzene	3.0	6.1	13	26
m,p-Xylene	3.0	31	13	140
o-Xylene	3.0	11	13	49
4-Ethyltoluene	3.0	8.4	15	41
1,3,5-Trimethylbenzene	3.0	3.4	15	17
1,2,4-Trimethylbenzene	3.0	11	15	52

#### Client Sample ID: AWSG-2 Duplicate

#### Lab ID#: 0511347-02AA

Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,3-Butadiene	3.0	3.7	6.6	8.2
Acetone	12	37	28	88
2-Propanol	12	24	29	58
2-Butanone (Methyl Ethyl Ketone)	3.0	3.2	8.8	9.5
Toluene	3.0	660	11	2500
Tetrachloroethene	3.0	11	20	77
Ethyl Benzene	3.0	5.7	13	25
m,p-Xylene	3.0	31	13	130
o-Xylene	3.0	11	13	48
4-Ethyltoluene	3.0	8.8	15	43
1,3,5-Trimethylbenzene	3.0	3.5	15	17

### Client Sample ID: AWSG-2 Duplicate

## Lab ID#: 0511347-02AA

1,2,4-Trimethylbenzene	3.0	10	15	51

## Client Sample ID: AWSG-3

## Lab ID#: 0511347-03A

	Røt. Limit	Amount	Rpt. Limit	Amount
Compound	(ppbv)	(ppbv)	(uG/m3)	(uG/m3)
Acetone	31	37	74	89
Toluene	7.8	7.8	29	30
Tetrachloroethene	7.8	1400	53	9400

Client Sample ID: AWSG-1

Lab ID#: 0511347-01A

File Name:	s112819	Date of Collection: 11/15/05		
Dil. Factor:	82.0	Date of Analysis: 11/28/05 04:57 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	41	Not Detected	200	Not Detected
Freon 114	41	Not Detected	290	Not Detected
Chloromethane	160	Not Detected	340	Not Detected
Vinyl Chloride	41	Not Detected	100	Not Detected
1,3-Butadiene	41	Not Detected	91	Not Detected
Bromomethane	41	Not Detected	160	Not Detected
Chloroethane	41	Not Detected	110	Not Detected
Freon 11	41	Not Detected	230	Not Detected
Ethanol	160	Not Detected	310	Not Detected
Freon 113	41	Not Detected	310	Not Detected
1,1-Dichloroethene	41	Not Detected	160	Not Detected
Acetone	160	Not Detected	390	Not Detected
2-Propanol	160	Not Detected	400	Not Detected
Carbon Disulfide	41	Not Detected	130	Not Detected
3-Chloropropene	160	Not Detected	510	Not Detected
Methylene Chloride	41	Not Detected	140	Not Detected
Methyl tert-butyl ether	41	Not Detected	150	Not Detected
trans-1,2-Dichloroethene	41	Not Detected	160	Not Detected
Hexane	41	Not Detected	140	Not Detected
1,1-Dichloroethane	41	Not Detected	160	Not Detected
2-Butanone (Methyl Ethyl Ketone)	41	Not Detected	120	Not Detected
cis-1,2-Dichloroethene	41	Not Detected	160	Not Detected
Tetrahydrofuran	41	Not Detected	120	Not Detected
Chloroform	41	Not Detected	200	Not Detected
1,1,1-Trichloroethane	41	Not Detected	220	Not Detected
Cyclohexane	41	Not Detected	140	Not Detected
Carbon Tetrachloride	41	Not Detected	260	Not Detected
2,2,4-Trimethylpentane	41	Not Detected	190	Not Detected
Benzene	41	Not Detected	130	Not Detected
1,2-Dichloroethane	41	Not Detected	160	Not Detected
Heptane	41	Not Detected	170	Not Detected
Trichloroethene	41	230	220	1200
1,2-Dichloropropane	41	Not Detected	190	Not Detected
1,4-Dioxane	160	Not Detected	590	Not Detected
Bromodichloromethane	41	Not Detected	270	Not Detected
cis-1,3-Dichloropropene	41	Not Detected	190	Not Detected
4-Methyl-2-pentanone	41	Not Detected	170	Not Detected
Toluene	41	490	150	1800
trans-1,3-Dichloropropene	41	Not Detected	190	Not Detected
1,1,2-Trichloroethane	41	Not Detected	220	Not Detected
Tetrachloroethene	41	8600	280	59000
2-Hexanone	160	Not Detected	670	Not Detected

Client Sample ID: AWSG-1

Lab ID#: 0511347-01A

#### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: Dil. Factor:	s112819 82.0	Date of Collection: 11/15/05 Date of Analysis: 11/28/05 04:57 PM		
Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	41	Not Detected	350	Not Detected
1,2-Dibromoethane (EDB)	41	Not Detected	320	Not Detected
Chlorobenzene	41	Not Detected	190	Not Detected
Ethyl Benzene	41	Not Detected	180	Not Detected
m,p-Xylene	41	110	180	500
o-Xylene	41	Not Detected	180	Not Detected
Styrene	41	Not Detected	170	Not Detected
Bromoform	41	Not Detected	420	Not Detected
Cumene	41	Not Detected	200	Not Detected
1,1,2,2-Tetrachloroethane	41	Not Detected	280	Not Detected
Propylbenzene	41	Not Detected	200	Not Detected
4-Ethyltoluene	41	44	200	220
1,3,5-Trimethylbenzene	41	Not Detected	200	Not Detected
1,2,4-Trimethylbenzene	41	53	200	260
1,3-Dichlorobenzene	41	Not Detected	250	Not Detected
1,4-Dichlorobenzene	41	Not Detected	250	Not Detected
alpha-Chlorotoluene	41	Not Detected	210	Not Detected
1,2-Dichlorobenzene	41	Not Detected	250	Not Detected
1,2,4-Trichlorobenzene	160	Not Detected	1200	Not Detected
Hexachlorobutadiene	160	Not Detected	1700	Not Detected

#### Container Type: 6 Liter Summa Canister

		Method
Surrogates	%Recovery	Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: AWSG-2

Lab ID#: 0511347-02A

File Name:	s112820	Date of Collection: 11/15/05		
Dil. Factor:	5.97	Date of Analysis: 11/28/05 05:37 PM		
Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	3.0	Not Detected	15	Not Detected
Freon 114	3.0	Not Detected	21	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	3.0	Not Detected	7.6	Not Detected
1,3-Butadiene	3.0	3.8	6.6	8.5
Bromomethane	3.0	Not Detected	12	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
Freon 11	3.0	Not Detected	17	Not Detected
Ethanol	12	Not Detected	22	Not Detected
Freon 113	3.0	Not Detected	23	Not Detected
1,1-Dichloroethene	3.0	Not Detected	12	Not Detected
Acetone	12	37	28	88
2-Propanol	12	24	29	58
Carbon Disulfide	3.0	Not Detected	9.3	Not Detected
3-Chloropropene	12	Not Detected	37	Not Detected
Methylene Chloride	3.0	Not Detected	10	Not Detected
Methyl tert-butyl ether	3.0	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	3.0	Not Detected	12	Not Detected
Hexane	3.0	Not Detected	10	Not Detected
1,1-Dichloroethane	3.0	Not Detected	12	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.0	3.5	8.8	10
cis-1,2-Dichloroethene	3.0	Not Detected	12	Not Detected
Tetrahydrofuran	3.0	Not Detected	8.8	Not Detected
Chloroform	3.0	Not Detected	14	Not Detected
1,1,1-Trichloroethane	3.0	Not Detected	16	Not Detected
Cyclohexane	3.0	Not Detected	10	Not Detected
Carbon Tetrachloride	3.0	Not Detected	19	Not Detected
2,2,4-Trimethylpentane	3.0	Not Detected	14	Not Detected
Benzene	3.0	Not Detected	9.5	Not Detected
1,2-Dichloroethane	3.0	Not Detected	12	Not Detected
Heptane	3.0	Not Detected	12	Not Detected
Trichloroethene	3.0	Not Detected	16	Not Detected
1,2-Dichloropropane	3.0	Not Detected	14	Not Detected
1,4-Dioxane	12	Not Detected	43	Not Detected
Bromodichloromethane	3.0	Not Detected	20	Not Detected
cis-1,3-Dichloropropene	3.0	Not Detected	14	Not Detected
4-Methyl-2-pentanone	3.0	Not Detected	12	Not Detected
Toluene	3.0	680	11	2500
trans-1,3-Dichloropropene	3.0	Not Detected	14	Not Detected
1,1,2-Trichloroethane	3.0	Not Detected	16	Not Detected
Tetrachloroethene	3.0	11	20	78
2-Hexanone	12	Not Detected	49	Not Detected

Client Sample ID: AWSG-2

Lab ID#: 0511347-02A

#### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s112820	Date of Collection: 11/15/05 Date of Analysis: 11/28/05 05:37 F		
Dil. Factor:	5.97			
Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	3.0	Not Detected	25	Not Detected
1,2-Dibromoethane (EDB)	3.0	Not Detected	23	Not Detected
Chlorobenzene	3.0	Not Detected	14	Not Detected
Ethyl Benzene	3.0	6.1	13	26
m,p-Xylene	3.0	31	13	140
o-Xylene	3.0	11	13	49
Styrene	3.0	Not Detected	13	Not Detected
Bromoform	3.0	Not Detected	31	Not Detected
Cumene	3.0	Not Detected	15	Not Detected
1,1,2,2-Tetrachloroethane	3.0	Not Detected	20	Not Detected
Propylbenzene	3.0	Not Detected	15	Not Detected
4-Ethyltoluene	3.0	8.4	15	41
1,3,5-Trimethylbenzene	3.0	3.4	15	17
1,2,4-Trimethylbenzene	3.0	11	15	52
1,3-Dichlorobenzene	3.0	Not Detected	18	Not Detected
1,4-Dichlorobenzene	3.0	Not Detected	18	Not Detected
alpha-Chlorotoluene	3.0	Not Detected	15	Not Detected
1,2-Dichlorobenzene	3.0	Not Detected	18	Not Detected
1,2,4-Trichlorobenzene	12	Not Detected	89	Not Detected
Hexachlorobutadiene	12	Not Detected	130	Not Detected

#### Container Type: 6 Liter Summa Canister

		Method	
Surrogates	%Recovery	Limits	
Toluene-d8	100	70-130	
1,2-Dichloroethane-d4	98	70-130	
4-Bromofluorobenzene	96	70-130	

Client Sample ID: AWSG-2 Duplicate

Lab ID#: 0511347-02AA

File Name:	s112821	Date of Collection: 11/15/05		
Dil. Factor:	5.97	Date of Analysis: 11/28/05 06:16 PM		
Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	3.0	Not Detected	15	Not Detected
Freon 114	3.0	Not Detected	21	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	3.0	Not Detected	7.6	Not Detected
1,3-Butadiene	3.0	3.7	6.6	8.2
Bromomethane	3.0	Not Detected	12	Not Detected
Chloroethane	3.0	Not Detected	7.9	Not Detected
Freon 11	3.0	Not Detected	17	Not Detected
Ethanol	12	Not Detected	22	Not Detected
Freon 113	3.0	Not Detected	23	Not Detected
1,1-Dichloroethene	3.0	Not Detected	12	Not Detected
Acetone	12	37	28	88
2-Propanol	12	24	29	58
Carbon Disulfide	3.0	Not Detected	9.3	Not Detected
3-Chloropropene	12	Not Detected	37	Not Detected
Methylene Chloride	3.0	Not Detected	10	Not Detected
Methyl tert-butyl ether	3.0	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	3.0	Not Detected	12	Not Detected
Hexane	3.0	Not Detected	10	Not Detected
1,1-Dichloroethane	3.0	Not Detected	12	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.0	3.2	8.8	9.5
cis-1,2-Dichloroethene	3.0	Not Detected	12	Not Detected
Tetrahydrofuran	3.0	Not Detected	8.8	Not Detected
Chloroform	3.0	Not Detected	14	Not Detected
1,1,1-Trichloroethane	3.0	Not Detected	16	Not Detected
Cyclohexane	3.0	Not Detected	10	Not Detected
Carbon Tetrachloride	3.0	Not Detected	19	Not Detected
2,2,4-Trimethylpentane	3.0	Not Detected	14	Not Detected
Benzene	3.0	Not Detected	9.5	Not Detected
1,2-Dichloroethane	3.0	Not Detected	12	Not Detected
Heptane	3.0	Not Detected	12	Not Detected
Trichloroethene	3.0	Not Detected	16	Not Detected
1,2-Dichloropropane	3.0	Not Detected	14	Not Detected
1,4-Dioxane	12	Not Detected	43	Not Detected
Bromodichloromethane	3.0	Not Detected	20	Not Detected
cis-1,3-Dichloropropene	3.0	Not Detected	14	Not Detected
4-Methyl-2-pentanone	3.0	Not Detected	12	Not Detected
Toluene	3.0	660	11	2500
trans-1,3-Dichloropropene	3.0	Not Detected	14	Not Detected
1,1,2-Trichloroethane	3.0	Not Detected	16	Not Detected
Tetrachloroethene	3.0	11	20	77
2-Hexanone	12	Not Detected	49	Not Detected

Client Sample ID: AWSG-2 Duplicate

Lab ID#: 0511347-02AA

### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s112821	Date of Collection: 11/15/05		
Dil. Factor:	5.97		Date of Analysis: 1	1/28/05 06:16 PM
Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	3.0	Not Detected	25	Not Detected
1,2-Dibromoethane (EDB)	3.0	Not Detected	23	Not Detected
Chlorobenzene	3.0	Not Detected	14	Not Detected
Ethyl Benzene	3.0	5.7	13	25
m,p-Xylene	3.0	31	13	130
o-Xylene	3.0	11	13	48
Styrene	3.0	Not Detected	13	Not Detected
Bromoform	3.0	Not Detected	31	Not Detected
Cumene	3.0	Not Detected	15	Not Detected
1,1,2,2-Tetrachloroethane	3.0	Not Detected	20	Not Detected
Propylbenzene	3.0	Not Detected	15	Not Detected
4-Ethyltoluene	3.0	8.8	15	43
1,3,5-Trimethylbenzene	3.0	3.5	15	17
1,2,4-Trimethylbenzene	3.0	10	15	51
1,3-Dichlorobenzene	3.0	Not Detected	18	Not Detected
1,4-Dichlorobenzene	3.0	Not Detected	18	Not Detected
alpha-Chlorotoluene	3.0	Not Detected	15	Not Detected
1,2-Dichlorobenzene	3.0	Not Detected	18	Not Detected
1,2,4-Trichlorobenzene	12	Not Detected	89	Not Detected
Hexachlorobutadiene	12	Not Detected	130	Not Detected

#### Container Type: 6 Liter Summa Canister

		Method Limits	
Surrogates	%Recovery		
Toluene-d8	99	70-130	
1,2-Dichloroethane-d4	100	70-130	
4-Bromofluorobenzene	95	70-130	

Client Sample ID: AWSG-3

Lab ID#: 0511347-03A

File Name:	s112822	Date of Collection: 11/15/05		
Dil. Factor:	15.6	Date of Analysis: 11/28/05 06:54 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	7.8	Not Detected	38	Not Detected
Freon 114	7.8	Not Detected	54	Not Detected
Chloromethane	31	Not Detected	64	Not Detected
Vinyl Chloride	7.8	Not Detected	20	Not Detected
1,3-Butadiene	7.8	Not Detected	17	Not Detected
Bromomethane	7.8	Not Detected	30	Not Detected
Chloroethane	7.8	Not Detected	20	Not Detected
Freon 11	7.8	Not Detected	44	Not Detected
Ethanol	31	Not Detected	59	Not Detected
Freon 113	7.8	Not Detected	60	Not Detected
1,1-Dichloroethene	7.8	Not Detected	31	Not Detected
Acetone	31	37	74	89
2-Propanol	31	Not Detected	77	Not Detected
Carbon Disulfide	7.8	Not Detected	24	Not Detected
3-Chloropropene	31	Not Detected	98	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
Methyl tert-butyl ether	7.8	Not Detected	28	Not Detected
trans-1,2-Dichloroethene	7.8	Not Detected	31	Not Detected
Hexane	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	7.8	Not Detected	32	Not Detected
2-Butanone (Methyl Ethyl Ketone)	7.8	Not Detected	23	Not Detected
cis-1,2-Dichloroethene	7.8	Not Detected	31	Not Detected
Tetrahydrofuran	7.8	Not Detected	23	Not Detected
Chloroform	7.8	Not Detected	38	Not Detected
1,1,1-Trichloroethane	7.8	Not Detected	42	Not Detected
Cyclohexane	7.8	Not Detected	27	Not Detected
Carbon Tetrachloride	7.8	Not Detected	49	Not Detected
2,2,4-Trimethylpentane	7.8	Not Detected	36	Not Detected
Benzene	7.8	Not Detected	25	Not Detected
1,2-Dichloroethane	7.8	Not Detected	32	Not Detected
Heptane	7.8	Not Detected	32	Not Detected
Trichloroethene	7.8	Not Detected	42	Not Detected
1,2-Dichloropropane	7.8	Not Detected	36	Not Detected
1,4-Dioxane	31	Not Detected	110	Not Detected
Bromodichloromethane	7.8	Not Detected	52	Not Detected
cis-1,3-Dichloropropene	7.8	Not Detected	35	Not Detected
4-Methyl-2-pentanone	7.8	Not Detected	32	Not Detected
Toluene	7.8	7.8	29	30
trans-1,3-Dichloropropene	7.8	Not Detected	35	Not Detected
1,1,2-Trichloroethane	7.8	Not Detected	42	Not Detected
Tetrachloroethene	7.8	1400	53	9400
2-Hexanone	31	Not Detected	130	Not Detected

Client Sample ID: AWSG-3

Lab ID#: 0511347-03A

#### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s112822	Date of Collection: 11/15/05		
Dil. Factor:	15.6		Date of Analysis: 1	1/28/05 06:54 PM
Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	7.8	Not Detected	66	Not Detected
1,2-Dibromoethane (EDB)	7.8	Not Detected	60	Not Detected
Chlorobenzene	7.8	Not Detected	36	Not Detected
Ethyl Benzene	7.8	Not Detected	34	Not Detected
m,p-Xylene	7.8	Not Detected	34	Not Detected
o-Xylene	7.8	Not Detected	34	Not Detected
Styrene	7.8	Not Detected	33	Not Detected
Bromoform	7.8	Not Detected	81	Not Detected
Cumene	7.8	Not Detected	38	Not Detected
1,1,2,2-Tetrachloroethane	7.8	Not Detected	54	Not Detected
Propylbenzene	7.8	Not Detected	38	Not Detected
4-Ethyltoluene	7.8	Not Detected	38	Not Detected
1,3,5-Trimethylbenzene	7.8	Not Detected	38	Not Detected
1,2,4-Trimethylbenzene	7.8	Not Detected	38	Not Detected
1,3-Dichlorobenzene	7.8	Not Detected	47	Not Detected
1,4-Dichlorobenzene	7.8	Not Detected	47	Not Detected
alpha-Chlorotoluene	7.8	Not Detected	40	Not Detected
1,2-Dichlorobenzene	7.8	Not Detected	47	Not Detected
1,2,4-Trichlorobenzene	31	Not Detected	230	Not Detected
Hexachlorobutadiene	31	Not Detected	330	Not Detected

#### Container Type: 6 Liter Summa Canister

	Mothod	
Surrogates	%Recovery	Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: Lab Blank

Lab ID#: 0511347-04A

File Name:	s112818		Date of Collection: N	IA
Dil. Factor:	1.00		Date of Analysis: 1	1/28/05 02:41 PM
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 0511347-04A

#### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s112818		Date of Collection: N	A
Dil. Factor:	1.00		Date of Analysis: 1	1/28/05 02:41 PM
Compound	Rɒt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

## Container Type: NA - Not Applicable

		Method	
Surrogates	%Recovery	Limits	
Toluene-d8	100	70-130	
1,2-Dichloroethane-d4	100	70-130	
4-Bromofluorobenzene	94	70-130	

Client Sample ID: CCV

Lab ID#: 0511347-05A

File Name:	s112815	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/05 12:06 PM

Compound	%Recovery
Freon 12	93
Freon 114	96
Chloromethane	95
Vinyl Chloride	92
1,3-Butadiene	93
Bromomethane	95
Chloroethane	96
Freon 11	94
Ethanol	97
Freon 113	92
1,1-Dichloroethene	91
Acetone	95
2-Propanol	95
Carbon Disulfide	92
3-Chloropropene	97
Methylene Chloride	89
Methyl tert-butyl ether	92
trans-1,2-Dichloroethene	88
Hexane	92
1,1-Dichloroethane	89
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	91
Tetrahydrofuran	86
Chloroform	86
1,1,1-Trichloroethane	91
Cyclohexane	91
Carbon Tetrachloride	93
2,2,4-Trimethylpentane	92
Benzene	89
1,2-Dichloroethane	90
Heptane	95
Trichloroethene	91
1,2-Dichloropropane	88
1,4-Dioxane	94
Bromodichloromethane	93
cis-1,3-Dichloropropene	93
4-Methyl-2-pentanone	98
Toluene	89
trans-1,3-Dichloropropene	92
1,1,2-Trichloroethane	91
Tetrachloroethene	90
2-Hexanone	99

Client Sample ID: CCV

Lab ID#: 0511347-05A

#### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s112815	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/05 12:06 PM

Compound	%Recovery
Dibromochloromethane	94
1,2-Dibromoethane (EDB)	92
Chlorobenzene	91
Ethyl Benzene	91
m,p-Xylene	88
o-Xylene	94
Styrene	94
Bromoform	98
Cumene	94
1,1,2,2-Tetrachloroethane	92
Propylbenzene	93
4-Ethyltoluene	95
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	97
1,3-Dichlorobenzene	94
1,4-Dichlorobenzene	93
alpha-Chlorotoluene	98
1,2-Dichlorobenzene	93
1,2,4-Trichlorobenzene	117
Hexachlorobutadiene	95

## Container Type: NA - Not Applicable

		Method
Surrogates	%Recovery	Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCS

Lab ID#: 0511347-06A

File Name:	s112816	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/05 12:44 PM

Compound	%Recovery
Freon 12	78
Freon 114	80
Chloromethane	90
Vinyl Chloride	77
1,3-Butadiene	91
Bromomethane	83
Chloroethane	81
Freon 11	81
Ethanol	81
Freon 113	83
1,1-Dichloroethene	81
Acetone	99
2-Propanol	83
Carbon Disulfide	94
3-Chloropropene	94
Methylene Chloride	82
Methyl tert-butyl ether	88
trans-1,2-Dichloroethene	88
Hexane	89
1,1-Dichloroethane	81
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	108
Tetrahydrofuran	85
Chloroform	78
1,1,1-Trichloroethane	78
Cyclohexane	88
Carbon Tetrachloride	81
2,2,4-Trimethylpentane	95
Benzene	79
1,2-Dichloroethane	81
Heptane	90
Trichloroethene	80
1,2-Dichloropropane	81
1,4-Dioxane	91
Bromodichloromethane	90
cis-1,3-Dichloropropene	94
4-Methyl-2-pentanone	95
Toluene	85
trans-1,3-Dichloropropene	86
1,1,2-Trichloroethane	82
Tetrachloroethene	82
2-Hexanone	87

Client Sample ID: LCS

Lab ID#: 0511347-06A

#### MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	s112816	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/05 12:44 PM

Compound	%Recovery
Dibromochloromethane	88
1,2-Dibromoethane (EDB)	92
Chlorobenzene	82
Ethyl Benzene	84
m,p-Xylene	86
o-Xylene	85
Styrene	96
Bromoform	86
Cumene	76
1,1,2,2-Tetrachloroethane	82
Propylbenzene	85
4-Ethyltoluene	82
1,3,5-Trimethylbenzene	84
1,2,4-Trimethylbenzene	91
1,3-Dichlorobenzene	81
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	79
1,2-Dichlorobenzene	78
1,2,4-Trichlorobenzene	94
Hexachlorobutadiene	79

## Container Type: NA - Not Applicable

		Method		
Surrogates	%Recovery	Limits		
Toluene-d8	101	70-130		
1,2-Dichloroethane-d4	99	70-130		
4-Bromofluorobenzene	103	70-130		

#### Sample Transportation Notice

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AIR TOXI

AN ENVIRONMENTAL ANALYTICAL LABORATORY

CHAIN-OF-CUSTODY RECORD

Relinquishing signature on this occurrent indicates that sample is being shipped in compliance 180 BLUE RAVINE ROAD, SUITE B with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Al: Toxics Limited assumes no l'ability with respect to the collection, handling or (916) 985-1000 FAX (916) 985-1020 shipping of these samples. Helinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples, D.O.T. Holline (800) 467-4922.

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# Appendix C

DEPARTMENT OF WATER RESOURCES CENTRAL DISTRICT 3251 S STREET SACRAMENTO, CA. 95816-7017



NOV 9 2005

Ms. Perdeep Bhui All West Environmental, Incorporated 550 Howard Street, Suite 300 San Francisco, California 94105

Dear Ms. Bhui:

In response to your request, we searched our records for well location information for sites within the following area:

Township 01 South, Range 04 West, Section 36

We found no information pertaining to wells in this area.

If you need additional information or have any questions, please contact Anne Roth at (916) 227-7632 or fax (916) 227-7600.

Sincerely,

Juan M. Escobar, Chief Groundwater Supply Assessment and Special Studies Section

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# Appendix D



# **APPLICATION FOR AUTHORIZATION TO USE**

**REPORT TITLE:** SUBSURFACE INVESTIGATION and SENSITIVE RECEPTOR SURVEY REPORT Wash Time Laundromat 1815 Park Boulevard Oakland, California

- To: AllWest Environmental, Inc. 530 Howard Street, Suite 300 San Francisco, CA 94105
- From (Applicant): \_

(Please clearly identify name and address of person/entity applying for permission to use or copy this document)

Ladies and Gentlemen:

Applicant hereby applies for permission to rely upon *AllWest's* work product, as described above, for the purpose of: (state here the purpose for which you wish to rely upon the work product)

Applicant only can accept and rely upon *AllWest* work product under the strict understanding that Applicant is bound by all provisions in the Terms and Conditions attached to the report. Every report, recommendation, finding, or conclusion issued by *AllWest* shall be subject to the limitations stated in the Agreement and subject report(s). If this is agreeable, please sign below and return one copy of this letter to us along with the applicable fees. Upon receipt and if acceptable, our signed letter will be returned. *AllWest* may withhold permission at its sole discretion or require additional re-use fees or terms.

**FEES:** A \$750 coordination and reliance fee, payable in advance, will apply. If desired, for an additional \$75 report reproduction fee, we will reissue the report in the name of the Applicant; the report date, however, will remain the same. All checks will be returned if your request for reliance is not approved.

# **REQUESTED BY**

APPROVED BY

AllWest Environmental, Inc.

Applicant Company

Print name and Title

Print Name and Title

Signature and Date

Signature and Date

25255.23 SUBSURFACE INVESTIGATION and SENSITIVE RECEPTOR SURVEY REPORT Wash Time Laundromat 1815 Park Boulevard Oakland, California

# **GENERAL CONDITIONS TO THE WORK AUTHORIZATION**

#### AGREEMENT

It is hereby agreed that the Client retains AllWest to act for and represent it in all matters set forth in the Work Authorization attached hereto (the "Work"). Such contract of retainer shall be subject to and is conditioned upon the following terms, conditions, and stipulations, which terms, conditions and stipulations will also apply to any further agreements, purchase orders, or documentation regarding the Work unless modified by a writing signed by both Parties to this Agreement. Signature by client on work authorization constitutes agreement with General Conditions as stated here.

It is recognized and agreed that AllWest has assumed responsibility only for making the investigations, reports and recommendations to the Client included within the Scope of Work. The responsibility for making any disclosures or reports to any third party and for the taking of corrective, remedial, or mitigative action shall be solely that of the Client.

# REIMBURSABLE COSTS/INTEREST AND ATTORNEYS FEES

1. Reimbursable Costs will be charged to the Client in addition to the fees for the basic services under this Agreement and all Additional Services under the Agreement. Reimbursable Costs include, but are not limited to, expenses for travel, including transportation, meals, lodging, long distance telephone and other related expenses, as well as the costs of reproduction of all drawings for the Client's use, costs for specifications and type-written reports, permit and approval fees, automobile travel reimbursement, costs and fees of subcontractors, and soil and other materials testing. No overtime is accrued for time spent in travel. All costs incurred which relate to the services or materials provided by a contractor or subcontractor to AllWest shall be invoiced by AllWest on the basis of cost plus twenty percent (20%). Automobile travel reimbursement shall be at the rate of thirty-five cents (\$.35) per mile. All other reimbursable costs shall be invoiced and billed by AllWest at the rate of 1.1 times the direct cost to AllWest. Any rates set forth in this Agreement are subject to reasonable increases by AllWest upon giving thirty days' written notice to Client. Reimbursable costs will be charged to the client *only as outlined* in the attached proposal if the work is a for Phase I Environmental Site Assessment. Client knowingly and willingly agrees to pay interest on the balance of on unpaid invoices. AllWest may waive such fees at its discretion.

#### WARRANTY AND LIMITATION OF LIABILITY

2. AllWest hereby warrants that it will perform the Work with the usual degree and standard of care and skill observed by members of AllWest's profession in the same geographic area on projects of the type engaged in by AllWest. Client's sole remedy under this Agreement against AllWest or any of its employees or independent contractors shall be to request that AllWest repeat or correct any of the Work performed by AllWest which fails to meet these standards. The financial liability of AllWest, including its employees and independent contractors including attorney fees, shall not exceed the dollar value of this contract and shall be limited to direct damages. All other damages such as loss of use, profits, anticipated profits and like losses are consequential damages for which neither AllWest nor its employees or independent contractors are liable. Client hereby releases AllWest from all liability and damage incurred by the Client or other person which are associated with the services provided by AllWest, or the employees, agents, contractors of AllWest, under this Agreement.

Further, Client hereby releases AllWest from any and all liability for risks or damages to the Project site. AllWest assumes no liability or duties regarding the Project site by reason of its performance of the Work at the Project. Client shall hold AllWest harmless from any liabilities or duties with respect to the work or the Project. Client shall further release, Indemnify and hold AllWest harmless from any and all claims, liabilities or damages resulting from AllWest's use of technological or design concepts, or any other concepts or uses which, though acceptable and standard at the time the decision to use them was made, are unacceptable or non-standard beginning at the time work commences or any time thereafter. If AllWest must incur additional expenses in the work by reason or the need to incorporate new or different technologies into the Work, whether necessitated by new laws, regulations or guidelines, or by the desire of Client, Client agrees to reimburse AllWest for such expenses, as well as provide compensation for AllWest's services at the rates set forth in the Work Authorization.

Client acknowledges that AllWest and its sub-contractors have played no part in the creation of any hazardous waste, pollution sources, nuisance, or chemical or industrial disposal problem, which may exist, and that AllWest has been retained for the sole purpose of assisting the Client in assessing any problem which may exist and in assisting the Client in formulating a remedial program, if such is within the Scope of Work which AllWest has assumed. Client recognizes that while necessary for investigations, commonly used exploration methods, may penetrate through contaminated materials and serve as a connecting passageway between the contaminated material and an uncontaminated aquifer or groundwater, possibly inducing cross contamination. While back-filling with grout, or other means, according to a state of practice design, is intended to provide a seal against such passageway, it is recognized that such a seal may be imperfect and that there is an inherent risk in drilling borings of performing other exploration methods in a hazardous waste site.

AllWest shall not be required to sign any documents, no matter by whom requested, that would result in AllWest having to certify, guarantee, warrant or opine on conditions whose existence AllWest cannot ascertain. The CLIENT also agrees not to make resolution of any dispute with AllWest or payment of any amount due to AllWest in any way contingent upon AllWest signing any such documents.

# TERMINATION

3. This Agreement may be terminated by either party upon seven (7) days' written notice should the other party substantially fail to perform in accordance with its terms through no fault of the party initiating the termination. In the event of termination which is not the fault of AllWest, AllWest shall be paid no less than eighty percent (80%) of the contract price, provided, however, that if AllWest shall have completed more than eighty percent of the Work at the time of said termination, AllWest shall be compensated as provided in the Work Authorization for all services performed prior to the termination date which fall within the scope of work described in the Work Authorization and may as well, at its sole discretion and in accordance with said Schedule of Fees, charge Client its reasonable costs and labor in winding up its files and removing equipment and other materials from the Project.

AllWest may issue notice to other consultants, contractors, subcontractors and to governing agencies having jurisdiction over the Project and take such other actions as are reasonably necessary in order to give notice that AllWest is no longer associated with the Project and to protect AllWest from claims of liability from the work of others.

# DOCUMENTS

4. Any documents prepared by AllWest, including but not limited to proposals, project specifications, drawings, calculations, plans and maps, and any ideas and designs incorporated therein, as well as any reproduction of the above are and shall remain the property of AllWest whether or not said documents are actually utilized in connection with the Project. The Client shall be permitted to retain a copy of any documents provided to the Client by AllWest, but said documents may not be used by the Client on other projects or for any other purpose, except the current one, except by agreement in writing with AllWest and with appropriate compensation to AllWest.

Client shall furnish, or cause to be furnished to AllWest, all documents and information known to Client that relate to the identity, location, quantity, nature, or characteristics of any asbestos, PCBs, or any other hazardous materials or waste at, on or under the site. In addition, Client will furnish or cause to be furnished such reports, data, studies, plans, specifications, documents and other information on surface or subsurface site conditions, e.g., underground tanks, pipelines and buried utilities, required by AllWest for proper performance of its services. IF CLIENT fails to provide AllWest with all hazardous material subject matter reports including geotechnical assessments in their possession during the period that AllWest is actively providing expertise (30 days post the final invoice), CLIENT shall release AllWest from any and all liability for risks and damages the CLIENT incurs resulting from their reliance on AllWest's professional opinion. AllWest shall be entitled to rely upon Client - provided documents and information in performing the services required in this Agreement; however, AllWest assumes no responsibility or liability for their accuracy or completeness. Client-provided documents will remain the property of the Client.

#### ACCESS TO PROJECT

5. Client grants to AllWest the right of access and entry to the Project at all times necessary for AllWest to perform the Work. If Client is not the owner of the Project, then Client represents that Client has full authority to grant access and right of entry to AllWest for the purpose of AllWest's performance of the Work. This right of access and entry extends fully to any agents, employees, contractors or subcontractors of AllWest upon reasonable proof of association with AllWest.

#### CONFIDENTIAL INFORMATION

Both Client and AllWest understand that in conjunction with AllWest's performance of the Work on the project, both 6. Client and AllWest's performance of the Work on the project, both Client and AllWest may receive or be exposed to Proprietary Information of the other. As used herein, the term "Proprietary Information" refers to any and all information of a confidential, proprietary or secret nature which may be either applicable to, or relate in any way to: (a) the personal, financial or other affairs of the business of each of the Parties, or (b) the research and development or investigations of each of the Parties. Proprietary Information includes, for example and without limitation, trade secrets, processes, formulas, data, know-how, improvements, inventions, techniques, software technical data, developments, research projects, plans for future development, marketing plans and strategies. Each of the Parties agrees that all Proprietary Information of the other party is and shall remain exclusively the property of that other party. The parties further acknowledge that the Proprietary Information of the other party is a special, valuable and unique asset of that party, and each of the Parties hereto agrees that at all times during the terms of this Agreement and thereafter to keep in confidence and trust all Proprietary Information of the other party, whether such Proprietary Information was obtained or developed by the other party before, during or after the term of this Agreement. Each of the Parties agrees not to sell, distribute, disclose or use in any other unauthorized manner the Proprietary Information of the other party. AllWest further agrees that it will not sell, distribute or disclose information or the results of any testing obtained by AllWest during the performance of the Work without the prior written approval of Client unless required to do so by federal, state or local statute, ordinance or regulation.

# ADDITIONAL SERVICES

7. In addition to the services to be performed by AllWest as described in the Work Authorization, the following items shall for the purposes of this Agreement be termed "Additional Services": (a) work resulting from changes in scope or magnitude of the Work as described therein, (b) work resulting from changes necessary because of construction cost over-runs, (c) work resulting from implementation of alternative or different designs from that first contemplated by the Parties, (d) work resulting from corrections or revisions required because of errors or omissions in construction by the building contractors, (e) work due to extended design or construction time schedules, (f) layout surveys in review of in-place constructed elements, and (g) services as an expert witness in connection with any public hearing, arbitration or proceedings of a court of record with respect to the Work on the Project.

AllWest will be compensated by Client for any Additional Services as provided under the Work Authorization.

# DISPOSAL OF CONTAMINATED MATERIAL

8. Client understands and agrees that AllWest is not, and has no responsibility as, a generator, operator, treater, storer, transporter or disposer of hazardous or toxic substances found or identified at the site, including investigation-derived waste. The Client shall undertake or arrange for handling, removal, treatment, storage, treatment of hazardous material shall be the sole responsibility of Client. AllWest's responsibilities shall be limited to recommendations regarding such matters and assistance with appropriate arrangements if authorized by Client.

# INDEPENDENT CONTRACTOR

9. Both Client and AllWest agree that AllWest will act as an independent contractor in the performance of the Work under this Agreement. All persons or parties employed by AllWest in connection with the Work are the agents, employees or subcontractors of AllWest and not of Client. Accordingly, AllWest shall be responsible for payment of all taxes arising out of AllWest's activities in performing the Work under this Agreement.

# NOTICES

10. (a) All notices, demands or requests provided for or permitted to be given pursuant to this Agreement must be in writing and shall be deemed to have been duly given on the date of service if served personally on the party to whom notice is to be given, or if mailed by first class certified mail, return receipt requested, and properly addressed as follows:

AllWest Environmental, Inc.
530 Howard Street, Suite 300
San Francisco, California 94105

when either (i) the return receipt is signed by the addressee, (ii) the mailing is refused by the addressee, or (iii) the mailing is not delivered because the addresses moved and left no forwarding address; b) By giving the other party to this Agreement ten (10) days' written notice thereof, the parties hereto and their respective successors and assigns shall have the right from time to time and at any time during the term of this Agreement to change their respective addresses and each shall have the right to specify as its address any other address within the United States of America.

# ENTIRE AGREEMENT

11. This Agreement contains the entire agreement between the Parties pertaining to the subject matter contained in it and supersedes all prior and contemporaneous agreements, representations and understandings of the Parties. The terms of this Agreement are contractual and not a mere recital. The undersigned have carefully read and understand the contents of this Agreement and sign their names to the same as their own free act. This Agreement was entered into following negotiations between the Parties.

# MODIFICATION / WAIVER / PARTIAL INVALIDITY

12. The terms of this Agreement may be modified only by a writing signed by both Parties. No consent or waiver, express or implied, by either party to or of any breach or default by another in the performance by the other of its obligations hereunder shall be deemed or construed to be a consent or waiver to or of any other breach or default in the performance by such other party of the same or any other obligations of such party hereunder. Failure on the part of either party to complain of any act or failure to act of the other, or to declare the other party in default, shall not constitute a waiver by such party of its rights hereunder. If any provision of this Agreement or the application thereof to any person or

circumstances shall be invalid or unenforceable to any extent, the remainder of this Agreement and the application of such provisions to other persons or circumstances shall not be affected thereby and shall be enforced to the greatest extent permitted by law.

# **INUREMENT / TITLES / ATTORNEYS' FEES**

13. Subject to any restrictions on transfers, assignments and encumbrances set forth herein, this Agreement shall inure to the benefit of and be binding upon the undersigned Parties and their respective heirs, executors, legal representatives, successors and assigns. Paragraph titles or captions contained in this Agreement are inserted only as a matter of convenience, and for reference only, and in no way limit, define or extend the provisions of any paragraph. If any legal action or any arbitration or other proceeding is brought for the enforcement of this Agreement, or because of an alleged dispute, breach, default or misrepresentation in connection with any of the provisions of this Agreement, the successful prevailing party shall be entitled to recover reasonable attorneys' fees and other costs incurred in that action or proceeding, in addition to any other relief to which it or they may be entitled. In addition, AllWest and Client shall be entitled to be reimbursed by the other for any attorneys' fees or other costs reasonably incurred in enforcing the terms of this Agreement in the event such fees are incurred without resorting to arbitration or litigation.

# INTERPRETATION / ADDITIONAL DOCUMENTS

14. The words "Client" and "AllWest" as used herein shall include the plural as well as the singular. Words used in the neuter gender include the masculine and feminine. Words used in the masculine gender include the feminine and neuter. If there is more than one Client or Consultant, the obligations hereunder imposed on Client or AllWest or Consultant shall be joint and several. Although the printed provisions of this Agreement were drafted by the attorneys for AllWest, the terms of this Agreement were fully negotiated by the Parties and shall not be construed for or against the Client or AllWest but shall be interpreted in accordance with the general meaning of the language herein contained in an effort to reach the intended result. Each of the Parties hereto shall upon request execute and/or acknowledge and/or deliver to each other Party or to its representatives any and all further documents which may now or hereafter be necessary to enable any of the Parties to effectuate any of the provisions of this Agreement.

# AUTHORITY

15. Each of the persons executing this Agreement on behalf of a corporation does hereby covenant and warrant that the corporation is duly authorized and existing under the laws of its respective state of incorporation, that the corporation has and is qualified to do business in its respective state of incorporation, that the corporation has the full right and authority to enter into this Agreement, that the Board of Directors if required pursuant to the bylaws or resolution of the corporation approved this Agreement, and that each person signing on behalf of the corporation is authorized to do so. If the Client is a joint venture or a general partnership, the signatories below warrant that said joint venture or general partnership is properly and duly organized and existing under the laws of the respective state of its formation and pursuant to the joint venture agreement or a partnership agreement as well as by virtue of the laws of the respective state of its formation, said signatory is a joint venture or a general partnership.

#### COUNTERPARTS / ABSENCE OF PARTNERSHIP OR JOINT VENTURE

16. This Agreement may be signed in counterparts by each of the Parties hereto and, taken together, the signed counterparts shall constitute a single document. It is expressly understood that the Client does not, in any way or for any purpose, become a partner of AllWest in the conduct of its business, or otherwise, or joint venturer or a member of a joint enterprise with AllWest. It is expressly understood that AllWest do not, in any way or for any purpose, become a partner of the Client in the conduct of Client's business, or otherwise, or joint venturer or a member of a joint enterprise with Client.

### THIRD PARTY BENEFICIARIES / CONTROLLING LAW

17. There are no intended third party beneficiaries of this Agreement. The services, data & opinions expressed by AllWest are for the sole use of the client, are for a particular project and may not be relied upon by anyone other than the client. This Agreement shall be controlled by the laws of the State of California and any action by either party to enforce this Agreement shall be brought in San Francisco County, California.

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