REPORT OF FINDINGS 5TH Street and Magnolia Street West Oakland, California

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Prepared for

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SIGNATURE PAGE

All information, conclusions and recommendations contained in this report have been prepared under the supervision of the undersigned professional(s).

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1.0 INTRODUCTION

This *Report of Findings* ("*Report*") has been prepared by West Environmental Services & Technology, Inc., (WEST) and presents the findings of the soil, soil gas and groundwater investigation conducted at 5th Street and Magnolia Street property located in West Oakland, California ("Site;" Figure 1-1). This *Report* includes: a description of the Site background and setting; summary of the investigation; data evaluation and comparative analysis; and conclusions. The *Report* was prepared in accordance with regulatory guidance documents including the State Water Resources Control Board (SWRCB) *Resolution 92-49, Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code 13304 (SWRCB*, 1996.

1.1 BACKGROUND

The approximately 0.5-acre Site is an undeveloped asphalt paved lot bounded by: 5th Street to the south; Union Street to the west; commercial businesses to the north; and Magnolia Street to the east; and is located within a commercial zone. The Site was formerly part of the California Department of Transportation's (Caltrans) Interstate 880 (Cypress Freeway) right-of-way that was demolished following the 1989 Loma Prieta earthquake. As part of the demolition, the freeway support columns were demolished to approximately three-feet below ground surface. In August 2015, Caltrans auctioned the Site for redevelopment.

Neighboring commercial businesses include automobile repair and service operations. Releases to soil and groundwater occurred on the adjacent commercial properties (1225 7th Street and 1211 7th Street) from underground storage tanks (USTs) containing petroleum products. In June 1997, the releases from the USTs at 1225 7th Street were closed by the Alameda County Health Care Services Agency (ACHCSA, 1997). Investigations of the UST releases at 1211 7th Street are currently ongoing



In September 2015, an investigation was conducted to characterize the Site environmental conditions and potential impacts from the UST releases on the adjacent properties. Eight borings (W-1 to W-8) were advanced for the collection of soil, soil gas and groundwater samples. Laboratory analysis of the soil samples revealed the presence of polycyclic aromatic hydrocarbons (PAHs) including benzo(a)pyrene up to 119 micrograms per kilogram (μ g/kg). Organochlorine pesticides were also detected in the soil samples including chlordane up to 18.4 μ g/kg and 4,4-DDE up to 7.54 μ g/kg. Metals were detected in the soil samples including arsenic up to 7.21 milligrams per kilogram (μ g/kg) and lead up to 2,180 mg/kg.

Volatile organic compounds (VOCs) were detected in the soil gas samples collected from borings W-1, W-2, W-4 and W-7 including: tetrachloroethene (PCE) up to 352 micrograms per cubic meter (μ g/m³) and benzene up to 9.14 μ g/m³. Laboratory analysis of the groundwater samples did not reveal total petroleum hydrocarbons as gasoline (TPHg) or VOCs above the laboratory-reporting limits, except for PCE up to 0.850 micrograms per liter (μ g/l).

The Site is proposed for commercial development. A comparative analysis between the Site data and applicable human health screening criteria indicates that chemicals in soil, soil gas and groundwater are present below their respective commercial California Regional Water Quality Control Board – San Francisco Bay (Regional Water Board) Environmental Screening Levels (ESLs).



2.0 SITE DESCRIPTION

The approximately 0.5-acre Site is an undeveloped asphalt paved lot is located within a commercial zone and bounded by: 5th Street to the south; Union Street to the west; commercial businesses to the north; and Magnolia Street to the east. As part of the demolition, the freeway support columns were demolished to approximately three-feet below ground surface. In August 2015, Caltrans auctioned the Site for redevelopment.

2.1 GEOLOGIC AND HYDROGEOLOGIC SETTING

The geology encountered in borings at the Site is comprised of fill and unconsolidated sands, silty sands and clay sands of the Merritt Formation. The fill material is approximately three-feet thick and comprised of sands and gravels with brick and concrete debris. Unconsolidated sands, silty sands and clayey sands of the Merritt Formation were encountered beneath the fill material to approximately 16-feet below ground surface (Appendix A).

Groundwater was encountered in the borings advanced at the Site between approximately 10-feet and 12-feet below ground surface. The groundwater flow direction measured at nearby sites is to the west-southwest (AEC, 1995).

2.2 SURFACE WATER

The San Francisco Bay is located approximately 500-feet west of the Site.

2.3 HISTORICAL SITE USE

The Site was formerly part of the Caltrans Interstate 880 (Cypress Freeway) right-of-way that was demolished following the 1989 Loma Prieta earthquake. Following freeway demolition, the Site was paved and fenced for use as a parking and equipment storage lot.



2.4 CURRENT USES OF ADJOINING PROPERTIES

Two adjoining properties to the north (1211 and 1225 7th Street) have been used for automobile repair and service operations. Releases of petroleum products from USTs have occurred at 1211 and 1225 7th Street. The UST release at 1225 7th Street (Zentrum Motors) impacted soil and occurred from a 10,000-gallon gasoline UST that was removed in 1992. In 1997, the Alameda County Health Care Services Agency (ACHCSA) closed the UST release at 1225 7th Street (ACHCSA, 1997).

The release at 1211 7th Street (Former Everidge Service Co.) impacted soil and groundwater and occurred from three 4,000-gallon gasoline USTs and one 250-gallon waste oil UST. The four USTs were installed in the 1960s (AEC, 1995). In 1992, the four USTs were removed. Between 1992 and 1995, investigations were conducted at 1211 7th Street to characterize the UST releases. In September 2015, the Regional Water Board approved a work plan to address data gaps at 1211 7th Street including: membrane interface probe (MIP); soil and groundwater sampling; preferential pathway study; monitoring well installation and soil gas sampling (Regional Water Board, 2015).



3.0 SUMMARY OF INVESTIGATIONS

In September 2015, soil, soil gas and groundwater samples were collected from eight borings, W-1 to W-8, advanced at the Site. The borings were advanced between three-feet and 16-feet below ground surface. A description of the sample collection methodologies and summaries of the laboratory analytical results are presented below. Summaries of the laboratory analytical results are also included in Tables 3-1 to 3-4 and depicted on Figures 3-1 and 3-2. Copies of the field data forms and boring logs are included in Appendix A. Copies of the laboratory data certificates and chain-of-custody forms are included in Appendix B.

3.1 SOIL SAMPLING

The borings were advanced using hydraulic direct push drilling equipment operated by a California licensed C-57 well drilling contractor. Soil cores were collected from the borings continuously using a four-foot long, two-inch diameter stainless steel Macrocore core barrel outfitted with an acetate liner. The soil cores were described on boring logs using the Unified Soil Classification System (USCS) and field screened for total organic vapors using a photoionization detector (PID) equipped with a 10.6 electron-Volt (eV) lamp and calibrated to 100 parts per million by volume (ppm_v) isobutylene gas.

3.1.1 Sample Collection Methodology

Soil samples for laboratory analyses were cut from approximately six-inch lengths of the acetate liner at target depths of approximately one-foot, three-feet and six-feet below ground surface. The ends of the soil samples were then covered with Teflon® sheets and plastic end caps, labeled and placed in a cooler with ice for transportation to a California Department of Public Health (CDPH) Environmental Laboratory Accreditation Program (ELAP) certified laboratory for chemical analysis following ASTM D4840 chain-of-custody protocols. The soil samples were analyzed for PAHs by United States Environmental Protection Agency (USEPA) Method 8270C,



organochlorine pesticides by USEPA Method 8081A and Title 22 Metals by USEPA Method 6000/7000 series.

3.1.2 Laboratory Analytical Results

3.1.2.1 PAHs

Laboratory analysis of the soil samples collected from the borings at approximately one-foot below ground surface revealed PAHs including: Acenaphthylene up to 32 μ g/kg (W-4); anthracene up to 25.9 μ g/kg (W-4); benzo(a)anthracene up to 105 μ g/kg (W-4); benzo(b)fluoranthene up to 187 μ g/kg (W-7); benzo(k)fluoranthene up to 60.7 μ g/kg (W-4); benzo(a)pyrene up to 119 μ g/kg (W-4); benzo(g,h,i)perylene up to 287 μ g/kg (W-4); chrysene up to 130 μ g/kg (W-3); dibenzo(a,h)anthracene up to 430 μ g/kg (W-6); fluoranthene up to 87 μ g/kg (W-4); fluorene up to 28.2 μ g/kg (W-4); indeno(1,2,3-c,d)pyrene up to 120 μ g/kg (W-7); naphthalene up to 26.2 μ g/kg (W-2); phenanthrene up to 129 μ g/kg (W-4); and pyrene up to 184 μ g/kg (W-4)(Table 3-1).

3.1.2.2 Organochlorine Pesticides

The organochlorine pesticides chlordane and 4,4-DDE were detected in the soil samples collected from borings W-1 to W-8 at one-foot below ground surface. Chlordane was detected up to 18.4 μ g/kg (W-8). 4,4-DDE was detected up to 7.54 μ g/kg (W-5; Table 3-1). Other organochlorine pesticides were not detected above the laboratory-reporting limits.

3.1.2.3 METALS

Soil samples collected from the borings at one-foot, three-feet and six-feet below ground surface were analyzed for metals. Arsenic was detected up to 7.21 mg/kg (W-2 at one-foot below ground surface); barium up to 1,790 mg/kg (W-2 at three-feet below ground surface); chromium up to 29.9 mg/kg (W-4 at three-feet below ground surface); cobalt up to 8.18 mg/kg (W-3 at one-foot



below ground surface); copper up to 43.4 mg/kg (W-4 at three-feet below ground surface); lead up to 2,180 mg/kg (W-4 at three-feet below ground surface); mercury up to 0.38 mg/kg (W-2 at three-feet below ground surface); nickel up to 34.5 mg/kg (W-4 at three-feet below ground surface); vanadium up to 43.2 mg/kg (W-3 at one-foot below ground surface); and zinc up to 701 mg/kg (W-4 at three-feet below ground surface)(Table 3-2 and Figure 3-1)

3.2 SOIL GAS SAMPLING

Soil gas samples were collected four borings W-1, W-2, W-4 and W-7 at approximately five-feet below ground surface. A summary of the sample collection methodology and laboratory analytical results is presented below.

3.2.1 Sample Collection Methodology

3.2.1.1 TEMPORARY VAPOR PROBE INSTALLATION

The soil gas samples were collected from temporary vapor probes constructed within the boring annulus. An approximately six-inch thick layer of #3 Monterey filter sand was placed at the base of the borehole. Following filter sand placement, a microfilter screen outfitted with a length of Teflon® tubing was lowered into the borehole. Additional filter sand was then added between at the base of the inlet screen to approximately six-inches above the top of the inlet screen. Approximately one-foot of dry bentonite granules was then placed above the sand filter pack. Hydrated bentonite granules were then placed above the dry bentonite granules within the borehole to the ground surface.

Following temporary soil gas probe installation and a minimum two-hour equilibration period was allowed prior to purge testing, leak testing and/or sample collection (DTSC, 2012). A summary of the sample collection methodology is presented below.



3.2.1.2 Shut-In Testing

Prior to purging or sampling soil gas, a test was conducted to check for leaks in the aboveground fittings, i.e., "shut-in" test. The shut-in test consisted of assembling the above ground apparatus (e.g., valves, lines and fittings downstream from the top of the probe), and evacuating the lines to a measured vacuum of approximately 100-inches of water column, then shutting the vacuum with closed valves on opposite ends of the sampling equipment. The vacuum gauge connected to the line via "T"-fitting was observed for at least one minute for observable loss of vacuum.

3.2.1.3 LEAK TESTING

Following the shut-in testing, a tracer compound was applied at the connections of the sampling equipment including valves, gauges, tubing, manifold and sample container. Helium was used for leak tracer testing by placing a shroud over the probe and sampling equipment. The helium was released into the shroud through a leak compound addition port and a handheld helium detector was connected to the leak compound sample port. Helium was added until a steady concentration of at least 10-percent or two orders of magnitude greater than the reporting-limit of the field meter used to analyze the sample. Helium concentrations were recorded on field data forms. The shroud remained in place and a steady helium concentration of 10-percent or greater was maintained during purging and sampling. Effluent from the purge pump was also monitored with the handheld helium monitor. Laboratory analysis of the soil gas samples will include testing for helium gas to assess for leakage.

3.2.1.4 PURGING

Following the leak test and shut-in testing, purging of the temporary soil gas probe was conducted. Approximately three purge volumes were removed (DTSC, 2012). The purge volume (also referred to as the "dead space volume") was estimated by summation of the internal volume of tubing, void space of the sand pack around the probe tip and void space of the dry bentonite. Purge flow rates between 100 to 200 mL/min and vacuums less than 100 inches of



water were maintained during purging. The purge effluent was also field screened for total organic compounds using a hand-held PID equipped with a 10.6 eV lamp and calibrated to 100 ppm_v as isobutylene gas. The purge effluent was also field screened for the helium tracer gas. The PID and helium detector readings were recorded on field data sheets.

3.2.1.5 SAMPLE COLLECTION

Following purging, the soil gas sample were collected using laboratory-prepared one-liter passivated stainless steel SUMMA® canisters delivered by the analytical laboratory with approximately 30-inches of mercury vacuum. The vacuum within the SUMMA® canisters was measured before sample collection to document the canister atmosphere. The flow control valve was then opened slowly to begin the sample collection.

Following sample collection, the flow control valve was closed and the canister atmosphere measured with a pressure gauge and recorded on the field data forms. The SUMMA® canister was then transported to a CDPH ELAP certified laboratory certified laboratory following chain-of-custody procedures outlined in ASTM D 4840. The soil gas samples were analyzed for VOCs by USEPA Method TO-15 and helium by ATM Method D 1945.

3.2.2 Laboratory Analytical Results

Laboratory analysis of the soil gas samples revealed the presence of VOCs including: PCE up to $352~\mu g/m^3~(W-4)$; benzene up to $9.14~\mu g/m^3~(W-1)$; toluene up to $15.8~\mu g/m^3~(W-1)$; ethyl benzene up to $4.60~\mu g/m^3~(W-1)$; xylenes up to $19.11~\mu g/m^3~(W-1)$; 1,3,5-trimethylbenzene (1,3,5-TMB) up to $10.4~\mu g/m^3~(W-1)$; 1,2,4-trimethylbenzene (1,2,4-TMB) up to $17~\mu g/m^3$; and trichlorofluoromethane (TCFM) up to $16.7~\mu g/m^3$ (Table 3-3 and Figure 3-2). The helium leak tracer gas was not detected in the soil gas samples above the laboratory-reporting limit of 0.100-percent.



3.3 GROUNDWATER SAMPLING

Groundwater samples were collected from borings W-1, W-2 and W-4. A summary of the sample collection methodology and laboratory analytical results is presented below.

3.3.1 Sample Collection Methodology

Groundwater samples were collected from the borings by installing temporary well casing within the borehole annulus. The base of the temporary well casing was comprised of a five-foot long, 0.75-inch diameter Schedule 40 polyvinyl chloride (PVC) slotted well casing equipped with a pre-pack sand filter. The top of the slotted well screen was outfitted with 0.75-inch Schedule 40 PVC blank well casing to the ground surface. The groundwater samples were then collected by placing a length of disposable polyethylene tubing into the temporary well casing that was attached to a peristaltic pump to purge water from the borehole. The groundwater was then decanted into laboratory-supplied pre-cleaned sample containers, labeled and placed in a cooler with ice for transportation to a CDPH ELAP certified laboratory following ASTM D 4840 chain-of-custody protocols. The groundwater samples were analyzed for TPHg by USEPA Method 8015M modified and for VOCs by USEPA Method 8260B.

3.3.2 Laboratory Analytical Results

Laboratory analysis of the groundwater samples did not reveal the presence of TPHg above its laboratory-reporting limit of 0.050 milligrams per liter (mg/l)(Table 3-4). VOCs were not detected in the groundwater samples above their laboratory-reporting limits, except for PCE at $0.850 \,\mu\text{g/l}$ (W-2)(Table 3-4).



4.0 DATA EVALUATION

Consistent with Regional Water Board guidance, a screening level assessment was performed to assist in assessing the adequacy of the existing data (Regional Water Board, 2013). The screening level assessment consisted of three components: (1) identification of potential exposure pathways; (2) identification of appropriate screening levels for each media; and (3) a comparative analysis. The screening level assessment has been used to evaluate conditions of potential concern and identify areas for additional investigations, i.e., data gaps.

4.1 SCREENING LEVEL ASSESSMENT

4.1.1 Exposure Pathways Evaluation

Exposure pathways for PAHs, pesticides and metals in soil, VOCs in soil gas and VOCs in groundwater at the Site have been evaluated to assess the potential impacts to human health and the environment. Direct contact and ingestion of soil is identified as complete exposure pathway for future construction and maintenance workers. Inhalation of VOCs is identified as a potentially complete exposure pathway for future Site occupants. Direct exposure to VOCs in groundwater is not identified as a potentially complete exposure pathway as the Site is served by municipal water supply (Figure 4-1).

4.1.1.1 EXPOSURE CONCENTRATIONS

Where sample data were limited, the maximum-detected concentration of the chemicals was compared with the screening levels. Where an adequate number of data points were available, the 95 percent upper confidence level (UCL) of the mean concentration, i.e., the Reasonable Maximum Exposure (RME) was compared with the screening levels, pursuant to CalEPA and USEPA guidance (CalEPA, 1996). The 95-percent UCL was calculated using ProUCL Version 5.0 (USEPA, 2013) and was performed on the soil laboratory analytical results for lead in soil. Copies of the statistical calculations are included in Appendix C.



The USEPA recommends that maximum beneficial uses of a property be the basis for evaluation. The reasonably anticipated beneficial use of the Site is commercial. Therefore, the Site conditions have been screened using the methods described below based on a commercial exposure scenario.

4.1.1.2 COMMERCIAL/INDUSTRIAL WORKER

The commercial/industrial scenario uses the conservative assumption that on-Site workers spend all or most their workday outdoors. The exposure for commercial/industrial workers is presumed to include: (1) a full time employee of a company operating on-site who spends most of the work day conducting maintenance or manual labor activities outdoors or (2) a worker who is assumed to regularly perform grounds-keeping activities as part of his/her daily responsibilities (Regional Water Board, 2013). Exposure to surface and shallow subsurface soils (i.e., at depths of zero- to two-feet below ground surface) is expected to occur during moderate digging associated with routine maintenance and grounds-keeping. The commercial/industrial worker scenario is based on a worker that is exposed to chemicals at the Site for 24-hours per day during 250-days per year for 25-years.

4.1.2 Identification of Screening Levels

Based on the identified exposure pathways, screening levels were identified for chemicals in soil, soil gas and groundwater as non-drinking water source. Chemical-specific screening levels were developed from concentrations based on published environmental screening criteria. The screening levels that were considered include the Regional Water Board ESLs. Exceeding a screening level "does not necessarily indicate that adverse impact to human health or the environment are occurring, [it] simply indicates that potential for adverse impacts may exist and that additional evaluation is warranted" (Regional Water Board, 2013).



4.1.2.1 REGIONAL WATER BOARD ESLS

The Regional Water Board has identified ESLs for PAHs, pesticides and metals in soil, VOCs in soil gas and groundwater (Regional Water Board, 2013). The Regional Water Board ESLs "are considered to be very conservative [and] the presence of a chemical at concentrations below the corresponding ESL can be assumed to not pose a significant threat to human health and the environment." While a chemical may be measured at concentrations above the Regional Water Board ESL, it "does not necessarily indicate that adverse impact to human health or the environment are occurring, [it] simply indicates that potential for adverse impacts may exist and that additional evaluation is warranted." In developing the ESLs, the Regional Water Board has considered exposure pathways to humans, including inhalation of VOCs in indoor air from migration of contaminated soil gas.

4.2 COMPARATIVE ANALYSIS

An evaluation between the identified screening levels and the soil laboratory analytical results was performed to characterize the Site conditions.

4.2.1 Soil Conditions

4.2.1.1 <u>PAHs</u>

PAHs were detected in the soil samples collected at the Site at concentrations below their respective commercial Regional Water Board ESLs with the exception of dibenzo(a,h)anthracene. Dibenzo(a,h)anthracene was detected up to 430 μg/kg, which is above its commercial Regional Water Board ESL of 380 μg/kg (W-6; Table 3-1). However, as the commercial worker is not anticipated to be exposed to soil below two-feet; the presence of dibenzo(a,h)anthracene at this depth does not represent a complete exposure pathway. The 95-percent UCL, i.e., exposure point concentration of dibenzo(a,h)anthracene in soil at 1-foot below



ground surface was calculated at 185 $\mu g/kg$, which is below the commercial Regional Water Board ESL of 430 $\mu g/kg$.

4.2.1.2 ORGANOCHLORINE PESTICIDES

The organochlorine pesticides chlordane and 4,4-DDE were detected in the soil samples above the laboratory-reporting limits. Chlordane was detected up to 18.4 μ g/kg, which is below its commercial Regional Water Board ESL of 1,700 μ g/kg. 4,4-DDE was detected up to 7.54 μ g/kg, which is below its commercial Regional Water Board ESL of 7,000 μ g/kg (Table 3-1).

4.2.1.3 <u>METALS</u>

Metals were detected in the soil samples collected between one-foot and six-feet below ground surface. Arsenic was detected up to 7.21 mg/kg, which is within the range of background arsenic concentrations up to 11 mg/kg for the San Francisco Bay Area (Duverge, 2011). Lead was detected up to 2,180 mg/kg (W-4 at three-feet below ground surface), which is above its commercial Regional Water Board ESL of 320 mg/kg (Table 3-2 and Figure 3-1). However, as the commercial worker is not anticipated to be exposed to soil below two-feet; the presence of lead at this depth does not represent a complete exposure pathway. The 95-percent UCL, i.e., exposure point concentration of lead in soil at 1-foot below ground surface was calculated at 185 mg/kg, which is below the commercial Regional Water Board ESL of 320 mg/kg.

Other metals were detected above the laboratory-reporting limits but at concentrations below their respective commercial Regional Water Board ESLs (Table 3-2).

4.2.2 Soil Gas Conditions

VOCs were detected in the soil gas samples collected from borings W-1, W-2, W-4 and W-7. PCE was detected up to 352 μ g/m³ (W-4), which is below its commercial Regional water Board ESL of 2,100 μ g/m³ for the protection of indoor air. Benzene was detected up to 9.14 μ g/m³ (W-



1), which is below its commercial Regional Water Board ESL of 420 $\mu g/m^3$. Toluene was detected up to 15.8 $\mu g/m^3$, which is below its commercial Regional water Board ESL of 1,600,000 $\mu g/m^3$. Ethyl benzene was detected up to 4.60 $\mu g/m^3$, which is below its commercial Regional Water Board ESL of 4,900 $\mu g/m^3$. Xylenes were detected up to 19.11 $\mu g/m^3$, which is below its commercial Regional Water Board ESL of 440,000 $\mu g/m^3$ (Table 3-3 and Figure 3-2).

Other VOCs were detected in the soil gas samples including 1,3,5-TMB (up to $10.4 \mu g/m^3$), 1,2,4-TMB (up to $17 \mu g/m^3$) and TCFM (up to $16.7 \mu g/m^3$); however, there are currently no promulgated Regional Water Board ESLs for these compounds.

4.2.3 Groundwater Conditions

Groundwater samples were collected from borings W-1, W-2 and W-4 (Figure 2-1). Laboratory analysis of the groundwater samples did not reveal the presence of TPHg above its laboratory-reporting limit of 0.050 mg/l. The VOC PCE was detected up to 0.850 μ g/l, which is below its maximum contaminant level (MCL) of 5 μ g/l. Other VOCs were not detected in the groundwater samples above their respective laboratory-reporting limits (Table 3-4).

4.3 Conclusions

The findings of the Site investigation indicate that the exposure point concentration for the PAH dibenz(a,h)anthracene (185 $\mu g/kg$) and lead (185 mg/kg) are present in soil below their respective commercial Regional Water Board ESLs of 380 $\mu g/kg$ and 320 mg/kg, for the protection of human health under a commercial use scenario. VOCs were detected in the soil gas samples including PCE, but at levels below their respective commercial indoor air protection ESLs. The VOC PCE was detected in the groundwater sample at 0.850 $\mu g/l$ (boring W-2) but at a concentration below its MCL of 5 $\mu g/l$.



5.0 REFERENCES

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6.0 DISTRIBUTION LIST

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REPORT OF FINDINGS 5TH STREET AND MAGNOLIA STREET WEST OAKLAND



TABLES

TABLE 3-1 SUMMARY OF SOIL ANALYTICAL RESULTS - PAHS and PESTICIDES

5th and Magnolia West Oakland, California

									F	PAHs								Pesti	cides
Sample ID	Date	Depth (feet)	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Benzo(a)pyrene	Benzo(g,h,i) perylene	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-c,d) pyrene	Naphthalene	Phenanthrene	Pyrene	Chlordane	4,4-DDE
			(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	$(\mu g/kg)$	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	$(\mu g/kg)$	(µg/kg)	(µg/kg)	(µg/kg)
W-1	9/17/18	1	9.42	5.46	14.8	80	15.6	47.1	209	53.4	36.5	8.07	<2.50	41.8	14	19.3	29.5	<12.5	< 5.00
W-2	9/17/18	1	14.8	10.1	55.1	132	35.8	99.8	255	79.6	59.3	31.5	<2.50	103	26.2	36	97.1	17.6	< 5.00
W-3	9/17/18	1	11.3	6.73	26	176	27	87.4	240	130	98.1	14.4	23	87.3	12.3	49.2	101	<12.5	< 5.00
W-4	9/17/18	1	32	25.9	105	178	60.7	119	287	91.9	70.6	87	28.2	107	13.9	129	184	15.2	< 5.00
W-5	9/17/18	1	20.3	18.3	67.5	130	47.2	81.5	159	75.9	26	74	<2.50	99.6	11.4	49.7	127	<12.5	7.54
W-6	9/17/18	1	17.7	9.44	36.9	74.5	28.3	44.4	226	40.5	430	28.2	19.5	59.2	11.7	38.3	72.6	15.8	< 5.00
W-7	9/17/18	1	18.8	15.7	61.2	187	45.2	111	264	97.2	77.3	50.7	9.02	120	13.5	84.2	144	15.3	< 5.00
W-8	9/17/18	1	13.9	6.45	41.7	134	38.5	78.2	234	80.1	73.1	17.1	13	99.7	23.6	30.9	48.4	18.4	< 5.00
ESLs-Cor	nmercial		1.5.E+04	170,000	1,300	1,300	1,300	130		13,000	380	22,000	22,000	1,300	150		33,000	1,700	7,000

Notes:

PAHs: Polycyclic aromatic hydrocarbons

μg/kg: micrograms per kilogram
--: Not analyzed/not available

ESLs: California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Levels

<2.50: Less than the laboratory-reporting limit of 2.50 $\mu g/kg$

TABLE 3-2 SUMMARY OF SOIL ANALYTICAL RESULTS - METALS

5th and Magnolia West Oakland, California

											Metals								
Sample ID	Date	Depth (feet)	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vaadium	Zinc
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
		1		3.58							25.9								
W-1	9/17/15	3		< 2.50							119								
		6		< 2.50							3.45								
		1		7.21							36.4								
W-2	9/17/15	3	< 2.50	6.91	1,790	< 2.50	< 2.50	25.6	3.92	37.7	661	0.38	< 2.50	20	< 2.50	< 2.50	< 2.50	28.5	688
		6		< 2.50							< 2.50								
		1	< 2.50	2.61	99.1	< 2.50	< 2.50	23.1	8.18	40.1	19.6	0.127	< 2.50	27.8	< 2.50	< 2.50	< 2.50	43.2	87.1
W-3	9/17/15	3		< 2.50							169								
		6		< 2.50							1,360								
		1		3.54							24.7								
W-4	9/17/15	3	< 2.50	7.17	990	< 2.50	< 2.50	29.9	6.35	43.4	2,180	0.344	< 2.50	34.5	< 2.50	<2.50	<2.50	26.7	701
		6		< 2.50							< 2.50								
		1		5.60							510								
W-5	9/17/15	3		< 2.50							50.2								
		6		< 2.50							< 2.50								
		1		4.34							25.5								
W-6	9/17/15	3		4.36							316								
		6	< 2.50	< 2.50	36.1	< 2.50	< 2.50	22.3	< 2.50	4.04		< 0.100	< 2.50	11.9	< 2.50	< 2.50	<2.50	15.6	12.8
		1		4.90							18.9								
W-7 9/17/1	9/17/15	3		2.50							199								
		6		2.64							2.87								
		1		3.28							20.1								
W-8	9/17/15	3		2.76							174								
		6		2.93							3.58								
ESLs-Con	nmercial		410	bg	1.9E+05	2,000	1,000	1.5E+06	300	41,000	320	88	5,100	19,000	5100	5,100	10	5,100	3.1E+05

Notes:

mg/kg: milligrams per kilogram

--: Not analyzed

ESLs: California Regional Water Quality Control Board - San Franicsco Bay Region Environmental Screening Levels

<2.50: Less than the laboratory-reporting limit of 2.50 μg/kg

TABLE 3-3 SUMMARY OF SOIL GAS ANALYTICAL RESULTS

5th and Magnolia West Oakland, California

Sample ID Depth (feet)		Date	PCE	Benzene	Toluene	Ethyl benzene	Xylenes	1,3,5- TMB	1,2,4- TMB	TCFM	Helium
	(Ieet)		$(\mu g/m^3)$	$(\mu g/m^3)$	$(\mu g/m^3)$	$(\mu g/m^3)$	$(\mu g/m^3)$	$(\mu g/m^3)$	$(\mu g/m^3)$	$(\mu g/m^3)$	(%)
W-1	5	9/17/15	29.4	9.14	15.8	4.60	19.11	10.4	17	16.7	< 0.100
W-2	5	9/17/15	224	<16.0	<18.8	<21.7	<21.7	<24.6	<24.6	<28.1	< 0.100
W-4	5	9/17/15	352	<16.0	<18.8	<21.7	<21.7	<24.6	<24.6	<28.1	<0.100
W-7	5	9/17/15	64	<16.0	<18.8	<21.7	<21.7	<24.6	<24.6	<28.1	<0.100
ESLs-Comn	nercial	•	2,100	420	1,600,000	4,900	440,000	-			

Notes:

PCE: Tetrachloroethene

TMB: Trimethylbenzene

TCFM: Trichlorofluoromethane

μg/m³: micrograms per meter cubed

<21.8: Less than the laboratory-reporting limit of 21.8 μ g/m³

--: not available

ESLs: California Regional Water Quality Control Board - San Franicsco Bay Region Environmental Screening Levels

TABLE 3-4 SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

5th and Magnolia West Oakland, California

Sample ID	Date	TPHg	Benzene	PCE	
1		(mg/l)	(µg/l)	(µg/l)	
W-1	9/17/15	< 0.050	< 0.500	< 0.500	
W-2	9/17/15	<0.050	<0.500	0.850	
W-4	9/17/15	<0.050	<0.500	<0.500	
MCLs		100	1	5	

Notes:

TPHg: Total petroleum hydrocarbons as gasoline

PCE: Tetrachloroethene μg/l: micrograms per liter mg/l: milligrams per liter

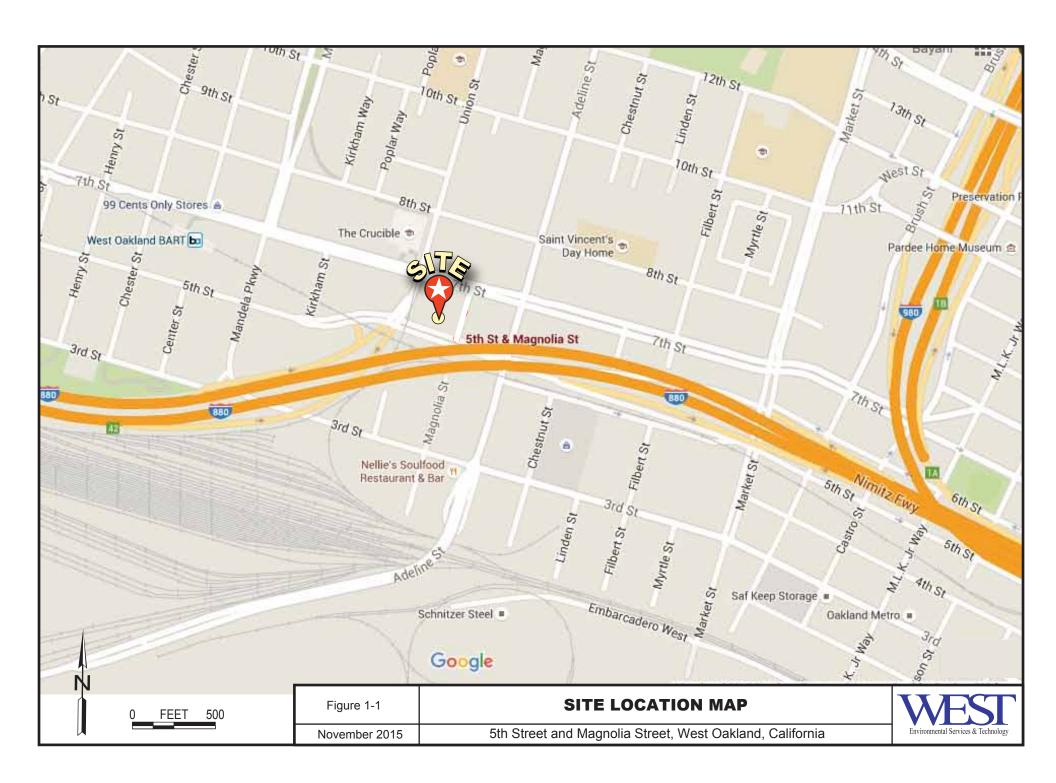
<0.500: Less than the laboratory-reporting limit of 0.500

MCLs: Maximum Contaminant Levels

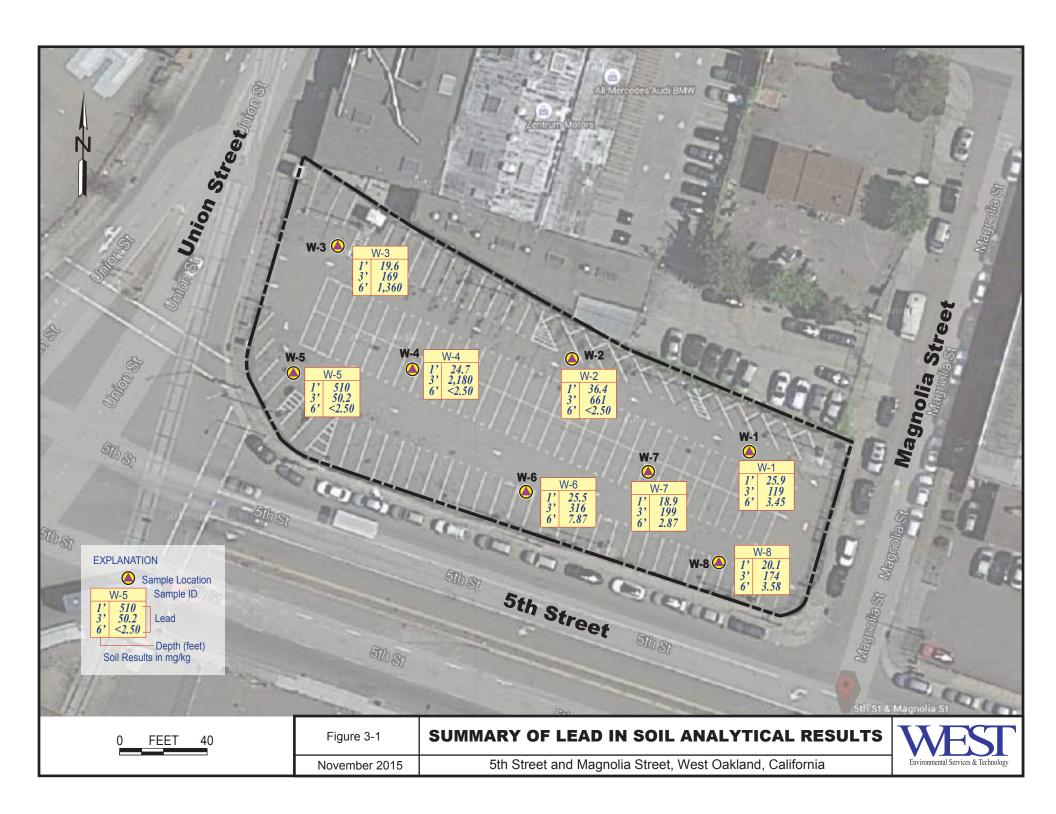
REPORT OF FINDINGS 5TH STREET AND MAGNOLIA STREET WEST OAKLAND



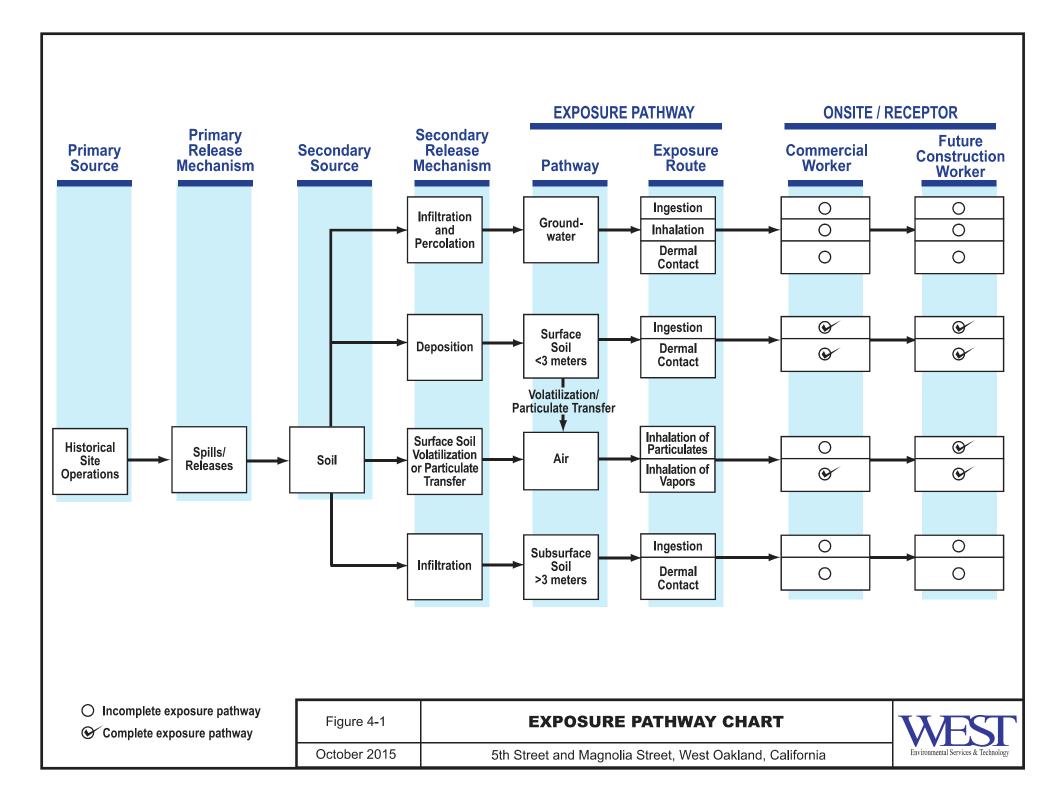
FIGURES













APPENDIX A FIELD DATA FORMS AND BORING LOGS

Environmental Services & Technology	ВС	ORING NO	WI	SHEETOF
PROJECT NAME: Ho)		st Oakland	DRILLING METHOD: Direct Pus	
PROJECT LOCATION:	5th & Magno	lia streets	SAMPLING METHOD: Macroco. TOTAL WELL DEPTH (FT): 16	18
DRILLING DATE: Se DRILLING COMPANY:	ptember	17,2015	WATER LEVEL AT TIME OF DRILLING (F	T): N14' bas
LOGGED BY: RL	M		STATIC WATER LEVEL (FT):	<u> </u>
WELL CONSTRUCTION DEPTH (FT) BLOW COUNTS	CORE INTERVAL (FT) CORE RECOVERY (F-			
MELL CONSTRU DEPTH (FT) BLOW COUNTS	COV NTE		SOIL DE	SCRIPTION
WELL CONS DEPTH (FT)	CORE RESAMPLE	SAMPLE ID		
WEL.	COR	SAM PID (
		K a fele	Asphalt Cutto love 42 degray	ightwown, fine to grand founded towards
	2 2	E (0,4) 50	Anstroney agus to plast, loss l'hi	ighthrown fine to grand downded to anywhole of isrick of isrick of israelish brown, fine grained by rave conceptor is
	3	101-9 10 701	7.518 114 CONCULTED - 1146 1 10 10	20
		(0.3) 51	Sitty sand, LOXE 4/3, Fine grained, n	o plass, shouthy damp, loose to
	\$ 45		a di manda	Long brown fine avained bus Hast damp,
5	W W Z	W 1025 EN 4 51	Yes - clayer sand boyk sly to see brown to a	
	9 8	(64)	TIOYPS/4	
	A 80		m stratet plast	
		(0.3)	moist Kim Yem-v. moist, no plast Som wet	
10	a .		-moist	
	8/2 8/2	30	You can stand plast	
	8.0	(0.7)		
			, wet	
	10 10	¥14' St	5M	
15	(V) (V)	10 10 10 72	m 104R 4/3 to Seun	
		@1140 60.27	My self-	
BOREHOLE DIAMETER (INCHES):	2.25	5 SL		BENTONITE SEAL – WET (FT): FROM TO
BOREHOLE DEPTH (F		SL		BENTONITE SEAL – DRY (FT): FROM TO —
CASING MATERIAL: CASING DIAMETER (IN		10 PVC SA		GROUT SEAL (FT): FROM O TO 16
BLANK WELL CASING FROM O	INTERVAL (SURFACE WELL COMPLETION: concrete

WES		во	RING	NO		W 2		SHEET OF
PROJECT NAME:		w.w	estOak	land		DRILLING METHOD: Direct F	254	
PROJECT LOCATI	ON: 5th &	Magn	oliastre	ets	5	SAMPLING METHOD: Macroca		
DRILLING DATE:	9/	7/15			٦	FOTAL WELL DEPTH (FT):		
DRILLING COMPA		CA			1	WATER LEVEL AT TIME OF DRILLING	(FT): 11,9	
LOGGED BY:	RI	M		,		STATIC WATER LEVEL (FT):		
WELL CONSTRUCTION DEPTH (FT)		SAMPLE INTERVAL	SAMPLE ID	PID (PPMV)	SOSO //		DESCRIPTION	
-5		n's	32-40 32-45 00450	1	srys?	asphaltbuserack (ity sound, SWSM, 10/R4/2, Fine grain Piece of concrete (ity sound, SM, 10/F sty, yellow shirt flawf, 16050 Trypally Would 6744 sand, SM/SP 10/F sty, yellow the med. devise, moist tinc. fines; slight to low place	with brown, y	
16	p.73	N/-0		(0.3)	sm	shout plast weth, scaturated, ion plast, slight plast no plast		
	%	(a)	W2-18	(0.3)	l			
BOREHOLE DIAMETER (INCHE	=5):	2.25			 SLOTT	ED SCREEN SIZE (INCHES): 0.070	BENTONITE FROM	SEAL – WET (FT):
18 1 2 2 3 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1		10	<u>.</u>		SLOTT	ED SCREEN INTERVAL (FT):	BENTONITE	SEAL - DRY (FT):
BOREHOLE DEPT CASING MATERIA	L: 90	16 U40		F	ROM	13 TO 18	FROM GROUT SEA	TO
CASING DIAMETE	R (INOHES	s): 3/	4	, i. i.	SAND		FROM	O TO 18
BLANK WELL CAS FROM	O TO	VAL (F	Γ): *	F	SAND ROM	PACK INTERVAL (FT): 13 TO (も	SURFACE W COMPLETIO	
.	##.							isg N

WEST	BORING NO	WY	SHEETOF							
PROJECT NAME:	iday. West Oakland	DRILLING METHOD: Direct Po	ish							
PROJECT LOCATION: 54h	A Magnolia Streets, Wt	SAMPLING METHOD: MACYOCO	Cl							
DRILLING DATE: 9/17	11.11									
DRILLING COMPANY: ELA WATER LEVEL AT TIME OF DRILLING (FT): 13.2 logs LOGGED BY: RLW STATIC WATER LEVEL (FT):										
LOGGED BY:	V 1	STATIC WATER LEVEL (FT).								
WELL CONSTRUCTION DEPTH (FT) BLOW COUNTS CORE INTERVAL (FT)	CORE RECOVERY (FT) SAMPLE INTERVAL SAMPLE ID PID (PPMV)		DESCRIPTION							
	SM	5 color drange 1048 1/2	dk gray ishibrown to \$12 brown, fine to conse/grave, by claim of to dry relay, color change a ~2.8-71048/1 reined, no plast., slightly dang, loose to							
	0 × 10+6 (0.2) 68	-maist mosted for Rolls brown to 7.54R \$6								
		mostled 101 Rds brown to with wet & 9.5, 107 R 5/3 I more 9: H/fines, 20 plast								
12 %	10 (e.1) 53	slight inc. in sand quain siz	e (stifffine), slight plast							
		ITED SCREEN INTERVAL (FT):	BENTONITE SEAL – WET (FT): FROM TO TO BENTONITE SEAL – DRY (FT): FROM TO							
CASING MATERIAL:	a 40,PVC	D SIZE:	GROUT SEAL (FT):							
CASING DIAMETER (INCHES): 3/4 BLANK WELL CASING INTERVAL (FT): SAND PACK INTERVAL (FT): SURFACE WELL COMPLETION: CONCRETE										



SOIL VAPOR SAMPLING LOG, SAMPLE ID: WI-5

PROJECT NAME PROJECT LOCAT WEATHER: DATE: SAMPLED BY: WELL TYPE, e.g.			ud
	CAMPLEID	·	
SAMPLE DATA	SAMPLE ID: VAPOR PROBE SAMPLE DEPTH (FT): SUMMA CANISTER ID: FLOW CONTROLLER SERIAL NO.:	W1-5 5-231	
PURGE VOLUME CALCULATION	PURGE VOLUME (CC): PURGE RATE (CC/MHY): PURGE TIME 1 WELL VOLUME (MHY): PURGE WELL VOLUMES (CIRCLE)	2.25 3.5 to 4.5 4.5 to 6 Mylaflow 7 0.17 417 60 cc 7 syringes 1	7 10
	PURGE TIME (MHY):	<u> </u>	
SHUT IN/ 10-MINUTE VACUUM TEST	VACUUM HOLD TEST START TIME (24 HR): INITIAL CANISTER VACUUM (IN. Hg) VACUUM HOLD TEST END TIME (24 HR): VACUUM HOLD TEST DURATION (MIN): FINAL CANISTER VACUUM (IN. Hg):	1220 9 1230 10	
PURGE AND SAMPLE TRAIN LEAK TEST	MEASUREMENTS WITHIN SHROUD PRIOR TO PURGE DURING PURGE POST PURGE MEASUREMENTS FROM SAMPLING TRAIN PURGE START 1 WELL VOLUME 3 WELL VOLUMES 7 WELL VOLUMES 10 WELL VOLUMES	TIME HELIUM (24 HR) (%) 123 28.1 1236 20.2 TIME HELIUM (24 HR) (%) 1233 0 1236 0	PID (PPMV) 1.0 0.1



SOIL VAPOR SAMPLING LOG, SAMPLE ID: WI-5

PROJECT NAME	TION: 5th & Magnolia Streets, Oaklan	d
DATE:	September 17,2015	
SAMPLE COLLECTION AND TRACER GAS MONITORING	INITIAL CANISTER VACUUM (IN. Hg) TIME CANISTER OPENED (24 HR) \leq -231 APPLY TRACER GAS WITHIN THE SHROUD	28 TIME HELIUM VACUUM (MINS) (%) (IN. Hg) 2 Z1.0 Z0 4 20.7 14 6 Z0.1 7 7 7.8 3 10
	TIME CANISTER CLOSED (24 HR) FINAL CANISTER PRESSURE (IN. Hg): TOTAL SAMPLE TIME (MINS):	1245 3 7
INTRINSIC PERMEABILITY TESTING	Gauge Flow M Depth (ft) Diameter of Pro	Pump Air Flow
	TEST THRU WELL TUBING/NO MANIFOLD	TEST 1 TEST 2 TEST 3 TEST 4
	VACUUM (IN. WATER) FLOW METER READING FLOW RATE (CC/MIN)	

LENGTH OF TEST (SEC)



SOIL VAPOR SAMPLING LOG, SAMPLE ID: WZ-5

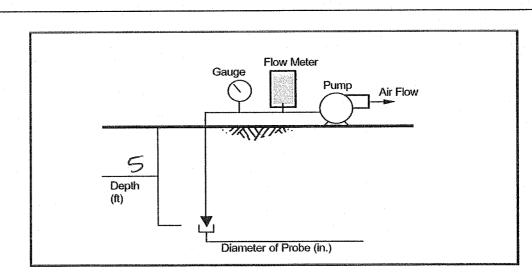
PROJECT NAME:	Holliday, West Oakland					
PROJECT LOCAT	Holliday. West Oakland ION: 5th & Magnolin streets, Oak	land, cA				
WEATHER:	mostly (beer skies, high bos, n	INW wind	to 12 mpl	L		
DATE:	September 17, 2015		1			
SAMPLED BY:	RLM					
	PERMANENT; TEMPORARY: Temporas	V				
		/				
	SAMPLE ID:	W2-5				
CANDIEDATA	VAPOR PROBE SAMPLE DEPTH (FT):	5				
SAMPLE DATA	SUMMA CANISTER ID:	5-25C				
	FLOW CONTROLLER SERIAL NO.:					
					·	
	BORING/WELL DIAMETER (INCH):	2.25				
	DRY BENTONITE INTERVAL (FT)	3.5 to	4.5			
	SAND PACK INTERVAL (FT):	4.5 40				
- Qi	TUBING TYPE:	Nylmfle	DiW .			
	TUBING LENGTH (FT):	7				
PURGE VOLUME CALCULATION	TUBING ID (INCH):	0.17	•			
CALCULATION	PURGE VOLUME (CC):	417				
	PURGE RATE (CC/MHN):	60				
	PURGE TIME 1 WELL VOLUME (MHN):	7 syringes				
	PURGE WELL VOLUMES (CIRCLE)	1	3	7	10	
	PURGE TIME (MHH):	7		Camara-		
	VACUUM HOLD TEST START TIME (24 HR):	1127		- W-11		
SHUT IN/	INITIAL CANISTER VACUUM (IN. Hg)	6				
10-MINUTE	VACUUM HOLD TEST END TIME (24 HR):	1187				
VACUUM TEST	VACUUM HOLD TEST DURATION (MIN):	10			-	
	FINAL CANISTER VACUUM (IN. Hg):	lo .				
·	MEASUREMENTS WITHIN SHROUD	TIME	HELIUM			
	WEASUREWENTS WITTING STROOP	(24 HR)	(%)			
	PRIOR TO PURGE	1137	21.0			
	DURING PURGE					
DUDOE AND	POST PURGE	1142	20.3			
PURGE AND SAMPLE TRAIN	MEASUREMENTS FROM SAMPLING TRAIN	TIME	HELIUM	PID		
LEAK TEST	INCLUDING TO THE PROPERTY OF T	(24 HR)	(%)	(PPMV)	BKg	
LLAKTLOT	PURGE START	1139	0	0.5	0.7	
	1 WELL VOLUME	1141	0	0.2	7.	
	3 WELL VOLUMES				4.5	
	7 WELL VOLUMES					
	10 WELL VOLUMES	C. Allendaria				



SOIL VAPOR SAMPLING LOG, SAMPLE ID: WZ-5

PROJECT NAME	Holliday. WestOalland			10-20-20-	
PROJECT LOCA	TION: 5th & Magnolia streets, Oak	-land, C	A		
DATE:	September 17 2015				
	INITIAL CANISTER VACUUM (IN. Hg)	30			
	TIME CANISTER OPENED (24 HR) \$-250	1143			
		TIME	HELIUM	VACUUM	
		(MINS)	(%)	(IN. Hg)	
		2	20.4	23	
		4	21.1	15	
		6	22.0	& .	
SAMPLE		8		3	
COLLECTION	APPLY TRACER GAS WITHIN THE SHROUD	10	gephanian	-	
AND TRACER GAS		15			
MONITORING		20			
		30		-	
		40	,		
		50			
		60	A STATE OF THE PARTY OF THE PAR		· · ·
	TIME CANISTER CLOSED (24 HR)	1151			
	FINAL CANISTER PRESSURE (IN. Hg):	3		:	
	TOTAL SAMPLE TIME (MINS):	තු			





TEST THRU WELL TUBING/NO MANIFOLD	TEST 1	TEST 2	TEST 3	TEST 4
VACUUM (IN. WATER)	<u> </u>			
FLOW METER READING	~			
FLOW RATE (CC/MIN)	400			
LENGTH OF TEST (SEC)		·		



SOIL VAPOR SAMPLING LOG, SAMPLE ID: W4-5

PROJECT NAME:	Holliday. West Oakland					
PROJECT LOCAT		west only	2)wol			
WEATHER:	clear skies, windy (WNW@12m)	10w 70%	5	1 111		
DATE:	September 17 2015	9				
SAMPLED BY:	RLM					
	PERMANENT; TEMPORARY: Temporary				٠.	
	SAMPLE ID:	W4-5			· · · · · · · · · · · · · · · · · · ·	
CANADIEDATA	VAPOR PROBE SAMPLE DEPTH (FT):	5				
SAMPLE DATA	SUMMA CANISTER ID:	5-354				
	FLOW CONTROLLER SERIAL NO.:					
	BORING/WELL DIAMETER (INCH):	2.25				
	DRY BENTONITE INTERVAL (FT)	3.5 40	4.5	*	·	
	SAND PACK INTERVAL (FT):	4.5 10			i .	
	TUBING TYPE:	Nylafl	OW			
	TUBING LENGTH (FT):	7'				
PURGE VOLUME CALCULATION	TUBING ID (INCH):	0.17	17			
CALCOLATION	PURGE VOLUME (CC):	6 417				
	PURGE RATE (CC/MIN):	60				
	PURGE TIME 1 WELL VOLUME (MHY):	9 Syrino	185			
	PURGE WELL VOLUMES (CIRCLE)		3	7	10	
	PURGE TIME (MIN):	7	Carrotte.	4000000		
	VACUUM HOLD TEST START TIME (24 HR):	1249				
SHUT IN/	INITIAL CANISTER VACUUM (IN. Hg)	10				
10-MINUTE	VACUUM HOLD TEST END TIME (24 HR):	1259				
VACUUM TEST	VACUUM HOLD TEST DURATION (MIN):	10		<u></u>		
	FINAL CANISTER VACUUM (IN. Hg):	10			!	
	· · · · · · · · · · · · · · · · · · ·					
	MEASUREMENTS WITHIN SHROUD	TIME	HELIUM		 	
		(24 HR)	(%)			
·	PRIOR TO PURGE	1300	Z6.1			
	DURING PURGE					
PURGE AND	POST PURGE	1303	22.2		,	
SAMPLÉ TRAIN	MEASUREMENTS FROM SAMPLING TRAIN	TIME	HELIUM	PID		
LEAK TEST		(24 HR)	(%)	(PPMV)		
	PURGE START	1301	0	0.4	0.1	
¢.	1 WELL VOLUME	1303	0	0.3		
	3 WELL VOLUMES	-			,-	
	7 WELL VOLUMES	- All Marie Company of the Company o				
`	10 WELL VOLUMES					



SOIL VAPOR SAMPLING LOG, SAMPLE ID: W4-5

PROJECT NAME	110111111111111111111111111111111111111	West	Orle	ad	
DATE:	September 17, 2015	, WCD(CURIC	<i>/</i> (<i>/</i>	
energi di di describi come de la come con come que en esta di come de esta di Come de	INITIAL CANISTER VACUUM (IN. Hg)	30			
	TIME CANISTER OPENED (24 HR) 5-354	1304			
		TIME	HELIUM	VACUUM	
		(MINS)	(%)_	(IN. Hg)	-
		2	21.0	22	
		4	21.8	14	
		6	20.3	7	
SAMPLE		7,8	· · · · · · · · · · · · · · · · · · ·	3	
COLLECTION AND TRACER	APPLY TRACER GAS WITHIN THE SHROUD	`10			
GAS		15			••
MONITORING		20			
		30			
		40			
		50	-		
		60		Canada	
	TIME CANISTER CLOSED (24 HR)	1311			
	FINAL CANISTER PRESSURE (IN. Hg):	3			
	TOTAL SAMPLE TIME (MINS):	7			
					4
	Flow N	/leter			
	Gauge Flow M				
	Gauge Flow N	fleter Pump	Air Flow		
	Gauge Flow N		Air Flow		
	Gauge Flow M		Air Flow		
	Gauge Flow M		Air Flow		
	Gauge Sauge		Air Flow		AND CANADA AND AND CANADA AND CANADA CAN
	Gauge Sauge Depth		Air Flow		
NTRINSIC PERMEABILITY	Gauge Sauge		Air Flow		
	Gauge Sauge Depth		Air Flow		
ERMEABILITY	Gauge Sauge Depth	Pump	Air Flow		

		,		
TEST THRU WELL TUBING/NO MANIFOLD	TEST 1	TEST 2	TEST 3	TEST 4
VACUUM (IN. WATER)				
FLOW METER READING	6			
FLOW RATE (CC/MIN)				
LENGTH OF TEST (SEC)				



SOIL VAPOR SAMPLING LOG, SAMPLE ID: W7-5

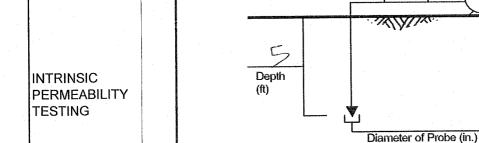
PROJECT NAME:	Holliday, West Oakland					
PROJECT LOCAT		vest Oal	Lland			
WEATHER:	clear skies high 1005/100 705	WWW @1	2 moh			
DATE:	September 17, 2015	,	1			
SAMPLED BY:	RLM					
	PERMANENT; TEMPORARY: Temporary	4				
		<u> </u>				
	SAMPLE ID:	W7-5				
CANADIEDATA	VAPOR PROBE SAMPLE DEPTH (FT):	5				
SAMPLE DATA	SUMMA CANISTER ID:	5-255)			
	FLOW CONTROLLER SERIAL NO.:					
·	BORING/WELL DIAMETER (INCH):	2.25				
	DRY BENTONITE INTERVAL (FT)	3.5 to	4.5			
	SAND PACK INTERVAL (FT):	4.5 to				
	TUBING TYPE:	Nylact	low			
	TUBING LENGTH (FT):	7				
PURGE VOLUME CALCULATION	TUBING ID (INCH):	0.17				
CALCULATION	PURGE VOLUME (CC):	417				
·	PURGE RATE (CC/M/HM):	60				
,	PURGE TIME 1 WELL VOLUME (MIN):	7 gyringes				
	PURGE WELL VOLUMES (CIRCLE)		3	7	10	
	PURGE TIME (MIN):					
			<u>-</u>			
	VACUUM HOLD TEST START TIME (24 HR):	1155			- Alberton	
SHUT IN/	INITIAL CANISTER VACUUM (IN. Hg)	10				
10-MINUTE	VACUUM HOLD TEST END TIME (24 HR):	1205				
VACUUM TEST	VACUUM HOLD TEST DURATION (MIN):	10				
	FINAL CANISTER VACUUM (IN. Hg):	10		· .		
			r			
	MEASUREMENTS WITHIN SHROUD	TIME	HELIUM			
		(24 HR)	(%)			
	PRIOR TO PURGE	1206	24.4			
	DURING PURGE		~			
PURGE AND	POST PURGE	1209	20.9			
SAMPLE TRAIN	MEASUREMENTS FROM SAMPLING TRAIN	TIME	HELIUM	PID		
LEAK TEST		(24 HR)	(%)	(PPMV)	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
	PURGE START	1207	0	0.2	0,1	
	1 WELL VOLUME	1209	8	0.2		
	3 WELL VOLUMES				3	
	7 WELL VOLUMES					
	10 WELL VOLUMES				IW ¹ . ¹	



SOIL VAPOR SAMPLING LOG, SAMPLE ID: W7-5

PROJECT NAME	: Holliday West Oakland	. 1 0 1/			
PROJECT LOCA	TION: 5th & Magnolia Streets, We	est wak	land		
DATE:	september 17 2015				
	/	·		and the same of th	ACCES 100 100 100 100 100 100 100 100 100 10
	INITIAL CANISTER VACUUM (IN. Hg)	30			
	TIME CANISTER OPENED (24 HR) 5-255	1210			
		TIME	HELIUM	VACUUM	
		(MINS)	(%)	(IN. Hg)	
		2	21.8	23	
		4	20.7	15	
		6	21.2	6	
SAMPLE		8	20.4	2	
COLLECTION	APPLY TRACER GAS WITHIN THE SHROUD	10	-		
AND TRACER		15	<		
GAS		20			
MONITORING		30		-	
		40			
		50			
		60			
	TIME CANISTER CLOSED (24 HR)	1218	L		1
	The state of the s	ව්			
·	FINAL CANISTER CLOSED (24 HR) FINAL CANISTER PRESSURE (IN. Hg): TOTAL SAMPLE TIME (MINS):	2			

Gauge



TEST THRU WELL TUBING/NO MANIFOLD	TEST 1	TEST 2	TEST 3	TEST 4
VACUUM (IN. WATER)	-			
FLOW METER READING		<u>.</u>		
FLOW RATE (CC/MIN)				
LENGTH OF TEST (SEC)				

Flow Meter

Air Flow



APPENDIX B LABORATORY DATA CERTIFICATES AND CHAIN-OF-CUSTODY FORMS

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd. Santa Rosa CA 95403 Phone: 707 527 7574

FAX: 707 527 7879

9946

HOLLIDAY.WEST OAKLAND

ACCT:

PROJ:

TRANSMITTAL

DATE:

9/25/2015

TO:

MR. PETER MORRIS

WEST ENVIRONMENTAL S&T 711 GRAND AVENUE, SUITE 220 SAN RAFAEL, CA 94901

Phone:

415-460-6770

Fax:

415-460-6771

Email:

main@westenvironmental.com

FROM:

Laboratory Director

SUBJECT: LABORATORY RESULTS FOR YOUR PROJECT

HOLLIDAY. WEST OAKLAND

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	TYPE	DATE	TIME	KPI LAB #
W1-1	SOIL	9/17/2015	10:15	136818
W1-3	SOIL	9/17/2015	10:20	136819
W1-6	SOIL	9/17/2015	10:25	136820
W2-1	SOIL	9/17/2015	9:40	136821
W2-3	SOIL	9/17/2015	9:45	136822
W2-6	SOIL	9/17/2015	9:50	136823
W3-1	SOIL	9/17/2015	15:35	136824
W3-3	SOIL	9/17/2015	15:40	136825
W3-6	SOIL	9/17/2015	15:45	136826
W4-1	SOIL	9/17/2015	10:30	136827
W4-3	SOIL	9/17/2015	10:35	136828
W4-6	SOIL	9/17/2015	10:40	136829
W5-1	SOIL	9/17/2015	15:20	136830
W5-3	SOIL	9/17/2015	15:25	136831
W5-6	SOIL	9/17/2015	15:30	136832
W6-1	SOIL	9/17/2015	14:50	136833
W6-3	SOIL	9/17/2015	14:55	136834
W6-6	SOIL	9/17/2015	15:00	136835
W7-1	SOIL	9/17/2015	9:55	136836
W7-3	SOIL	9/17/2015	10:00	136837
W7-6	SOIL	9/17/2015	10:05	136838
W8-1	SOIF	9/17/2015	15:05	136839
W8-3	SOIL	9/17/2015	15:10	136840
W8-6	SOIL	9/17/2015	15:15	136841

The above listed sample group was received on on the chain of custody document.

9/18/2015 and tested as requested

Please call me if you have any questions or need further information. Thank you for this opportunity to be of service.

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W1-1 LAB NO: 136818 TE SAMPLED: 09/17/2019

DATE SAMPLED: 09/17/2015 TIME SAMPLED: 10:15

BATCH #: 092115S1 DATE EXTRACTED: 09/21/2015 DATE ANALYZED: 09/23/2015

METHOD: ORGANOCHLORINE PESTICIDES SAMPLE TYPE: SOIL REFERENCE: EPA 3550/8081 UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ALPHA-BHC	319-84-6	2.50	ND
BETA-BHC	319-85-7	2.50	ND
GAMMA-BHC (LINDANE)	58-89-9	2.50	ND
HEPTACHLOR	76-44-8	2.50	ND
DELTA-BHC	319-86-8	2.50	ND
ALDRIN	309-00-2	2.50	ND
HEPTACHLOR EPOXIDE	1024-57-3	2.50	ND
ENDOSULFAN I	959-98-8	2.50	ND
4,4'-DDE	72-55-9	5.00	ND
DIELDRIN	60-57-1	5.00	ND
ENDRIN	72-20-8	5.00	ND
4,4'-DDD	72-54-8	5.00	ND
ENDOSULFAN II	33212-65-9	5.00	ND
4,4'-DDT	50-29-3	5.00	ND
ENDRIN ALDEHYDE	7421-93-4	5.00	ND
ENDOSULFAN SULFATE	1031-07-8	5.00	ND
METHOXYCHLOR	72-43-5	12.5	ND
CHLORDANE	57-74-9	12.5	ND
TOXAPHENE	8001-35-2	62.5	ND

SURROGATE RECOVERY	%
TCMX	71
DCBP	71

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY:

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W2-1 LAB NO: 136821 DATE SAMPLED: 09/17/2015

TIME SAMPLED: 9:40 BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED:** 09/23/2015

METHOD: ORGANOCHLORINE PESTICIDES SAMPLE TYPE: SOIL REFERENCE: EPA 3550/8081 UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ALPHA-BHC	319-84-6	2.50	ND
BETA-BHC	319-85-7	2.50	ND
GAMMA-BHC (LINDANE)	58-89-9	2.50	ND
HEPTACHLOR	76-44-8	2.50	ND
DELTA-BHC	319-86-8	2.50	ND
ALDRIN	309-00-2	2.50	ND
HEPTACHLOR EPOXIDE	1024-57-3	2.50	ND
ENDOSULFAN I	959-98-8	2.50	ND
4,4'-DDE	72-55-9	5.00	ND
DIELDRIN	60-57-1	5.00	ND
ENDRIN	72-20-8	5.00	ND
4,4'-DDD	72-54-8	5.00	ND
ENDOSULFAN II	33212-65-9	5.00	ND
4,4'-DDT	50-29-3	5.00	ND
ENDRIN ALDEHYDE	7421-93-4	5.00	ND
ENDOSULFAN SULFATE	1031-07-8	5.00	ND
METHOXYCHLOR	72-43-5	12.5	ND
CHLORDANE	57-74-9	12.5	17.6
TOXAPHENE	8001-35-2	62.5	ND

SURROGATE RECOVERY	%
TCMX	82
DCBP	72

NOTES

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY:

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W3-1 **LAB NO:** 136824

DATE SAMPLED: 09/17/2015 TIME SAMPLED: 15:35

BATCH #: 092115S1 DATE EXTRACTED: 09/21/2015

DATE EXTRACTED: 09/21/2015
DATE ANALYZED: 09/23/2015

METHOD: ORGANOCHLORINE PESTICIDES SAMPLE TYPE: SOIL REFERENCE: EPA 3550/8081 UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ALPHA-BHC	319-84-6	2.50	ND
BETA-BHC	319-85-7	2.50	ND
GAMMA-BHC (LINDANE)	58-89-9	2.50	ND
HEPTACHLOR	76-44-8	2.50	ND
DELTA-BHC	319-86-8	2.50	ND
ALDRIN	309-00-2	2.50	ND
HEPTACHLOR EPOXIDE	1024-57-3	2.50	ND
ENDOSULFAN I	959-98-8	2.50	ND
4,4'-DDE	72-55-9	5.00	ND
DIELDRIN	60-57-1	5.00	ND
ENDRIN	72-20-8	5.00	ND
4,4'-DDD	72-54-8	5.00	ND
ENDOSULFAN II	33212-65-9	5.00	ND
4,4'-DDT	50-29-3	5.00	ND
ENDRIN ALDEHYDE	7421-93-4	5.00	ND
ENDOSULFAN SULFATE	1031-07-8	5.00	ND
METHOXYCHLOR	72-43-5	12.5	ND
CHLORDANE	57-74-9	12.5	ND
TOXAPHENE	8001-35-2	62.5	ND

SURROGATE RECOVERY	%
TCMX	89
DCBP	74

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY: (A)

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W4-1 **LAB NO: 136827 DATE SAMPLED:** 09/17/2015

TIME SAMPLED: 10:30

BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED: 09/23/2015**

METHOD: ORGANOCHLORINE PESTICIDES **SAMPLE TYPE:** SOIL **REFERENCE: EPA 3550/8081** UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ALPHA-BHC	319-84-6	2.50	ND
BETA-BHC	319-85-7	2.50	ND
GAMMA-BHC (LINDANE)	58-89-9	2.50	ND
HEPTACHLOR	76-44-8	2.50	ND
DELTA-BHC	319-86-8	2.50	ND
ALDRIN	309-00-2	2.50	ND
HEPTACHLOR EPOXIDE	1024-57-3	2.50	ND
ENDOSULFAN I	959-98-8	2.50	ND
4,4'-DDE	72-55-9	5.00	ND
DIELDRIN	60-57-1	5.00	ND
ENDRIN	72-20-8	5.00	ND
4,4'-DDD	72-54-8	5.00	ND
ENDOSULFAN II	33212-65-9	5.00	ND
4,4'-DDT	50-29-3	5.00	ND
ENDRIN ALDEHYDE	7421-93-4	5.00	ND
ENDOSULFAN SULFATE	1031-07-8	5.00	ND
METHOXYCHLOR	72-43-5	12.5	ND
CHLORDANE	57-74-9	12.5	15.2
TOXAPHENE	8001-35-2	62.5	ND

SURROGATE RECOVERY	%
TCMX	88
DCBP	80

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY:

DATE: <u>09/25/2015</u>

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W5-1 **LAB NO: 136830 DATE SAMPLED:** 09/17/2015

TIME SAMPLED: 15:20 BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED:** 09/23/2015

METHOD: ORGANOCHLORINE PESTICIDES

REFERENCE: EPA 3550/8081

SAMPLE TYPE: SOIL UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ALPHA-BHC	319-84-6	2.50	ND
BETA-BHC	319-85-7	2.50	ND
GAMMA-BHC (LINDANE)	58-89-9	2.50	ND
HEPTACHLOR	76-44-8	2.50	ND
DELTA-BHC	319-86-8	2.50	ND
ALDRIN	309-00-2	2.50	ND
HEPTACHLOR EPOXIDE	1024-57-3	2.50	ND
ENDOSULFAN I	959-98-8	2.50	ND
4,4'-DDE	72-55-9	5.00	7.54
DIELDRIN	60-57-1	5.00	ND
ENDRIN	72-20-8	5.00	ND
4,4'-DDD	72-54-8	5.00	ND
ENDOSULFAN II	33212-65-9	5.00	ND
4,4'-DDT	50-29-3	5.00	ND
ENDRIN ALDEHYDE	7421-93-4	5.00	ND
ENDOSULFAN SULFATE	1031-07-8	5.00	ND
METHOXYCHLOR	72-43-5	12.5	ND
CHLORDANE	57-74-9	12.5	ND
TOXAPHENE	8001-35-2	62.5	ND

SURROGATE RECOVERY	%
TCMX	90
DCBP	86

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY: <u>Ch/</u> DATE: <u>09/25/2015</u>

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W6-1 **LAB NO:** 136833

DATE SAMPLED: 09/17/2015 TIME SAMPLED: 14:50 BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED: 09/23/2015**

METHOD: ORGANOCHLORINE PESTICIDES **SAMPLE TYPE: SOIL REFERENCE: EPA 3550/8081** UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ALPHA-BHC	319-84-6	2.50	ND
BETA-BHC	319-85-7	2.50	ND
GAMMA-BHC (LINDANE)	58-89-9	2.50	ND
HEPTACHLOR	76-44-8	2.50	ND
DELTA-BHC	319-86-8	2.50	ND
ALDRIN	309-00-2	2.50	ND
HEPTACHLOR EPOXIDE	1024-57-3	2.50	ND
ENDOSULFAN I	959-98-8	2.50	ND
4,4'-DDE	72-55-9	5.00	ND
DIELDRIN	60-57-1	5.00	ND
ENDRIN	72-20-8	5.00	ND
4,4'-DDD	72-54-8	5.00	ND
ENDOSULFAN II	33212-65-9	5.00	ND
4,4'-DDT	50-29-3	5.00	ND
ENDRIN ALDEHYDE	7421-93-4	5.00	ND
ENDOSULFAN SULFATE	1031-07-8	5.00	ND
METHOXYCHLOR	72-43-5	12.5	ND
CHLORDANE	57-74-9	12.5	15.8
TOXAPHENE	8001-35-2	62.5	ND

SURROGATE RECOVERY	%
TCMX	84
DCBP	67

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY: <u>(//)</u> DATE: <u>09/25/2015</u>

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W7-1 **LAB NO:** 136836

DATE SAMPLED: 09/17/2015

TIME SAMPLED: 9:55

BATCH #: 092115S1 DATE EXTRACTED: 09/21/2015 DATE ANALYZED: 09/23/2015

METHOD: ORGANOCHLORINE PESTICIDES SAMPLE TYPE: SOIL REFERENCE: EPA 3550/8081 UNITS: ug/Kg

COMPOUND NAME CAS NO. REPORTING SAMPLE LIMIT CONC ALPHA-BHC 319-84-6 2.50 ND BETA-BHC 319-85-7 2.50 ND GAMMA-BHC (LINDANE) 58-89-9 2.50 ND HEPTACHLOR 76-44-8 2.50 ND DELTA-BHC 319-86-8 2.50 ND ALDRIN 309-00-2 2.50 ND HEPTACHLOR EPOXIDE 1024-57-3 2.50 ND ENDOSULFAN I 959-98-8 2.50 ND 4,4'-DDE 72-55-9 5.00 ND DIELDRIN 60-57-1 5.00 ND **ENDRIN** 72-20-8 5.00 ND 4,4'-DDD 72-54-8 5.00 ND ENDOSULFAN II 33212-65-9 5.00 ND 4,4'-DDT 50-29-3 5.00 ND ENDRIN ALDEHYDE 7421-93-4 5.00 ND **ENDOSULFAN SULFATE** 1031-07-8 5.00 ND METHOXYCHLOR 72-43-5 12.5 ND CHLORDANE 57-74-9 12.5 15.3 **TOXAPHENE** 8001-35-2 62.5 ND

SURROGATE RECOVERY	%
TCMX	80
DCBP	64

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY: M

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W8-1 LAB NO: 136839

DATE SAMPLED: 09/17/2015 **TIME SAMPLED:** 15:05

BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED:** 09/23/2015

METHOD: ORGANOCHLORINE PESTICIDES SAMPLE TYPE: SOIL REFERENCE: EPA 3550/8081 UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ALPHA-BHC	319-84-6	2.50	ND
BETA-BHC	319-85-7	2.50	ND
GAMMA-BHC (LINDANE)	58-89-9	2.50	ND
HEPTACHLOR	76-44-8	2.50	ND
DELTA-BHC	319-86-8	2.50	ND
ALDRIN	309-00-2	2.50	ND
HEPTACHLOR EPOXIDE	1024-57-3	2.50	, ND
ENDOSULFAN I	959-98-8	2.50	ND
4,4'-DDE	72-55-9	5.00	ND
DIELDRIN	60-57-1	5.00	ND
ENDRIN	72-20-8	5.00	ND
4,4'-DDD	72-54-8	5.00	ND
ENDOSULFAN II	33212-65-9	5.00	ND
4,4'-DDT	50-29-3	5.00	ND
ENDRIN ALDEHYDE	7421-93-4	5.00	ND
ENDOSULFAN SULFATE	1031-07-8	5.00	ND
METHOXYCHLOR	72-43-5	12.5	ND
CHLORDANE	57-74-9	12.5	18.4
TOXAPHENE	8001-35-2	62.5	ND

SURROGATE RECOVERY	%
TCMX	86
DCBP	63

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY: M

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W1-1 **LAB NO:** 136818 **DATE SAMPLED:** 09/17/2015 TIME SAMPLED: 10:15 BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED:** 09/23/2015

METHOD: SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE TYPE: SOIL REFERENCE: EPA 3550/8270-SIM

UNITS: ug/Kg

COMPOUND NAME	CAS	REPORTING	SAMPLE
	NUMBER	LIMIT	CONC
ACENAPHTHENE	83-32-9	2.50	ND
ACENAPHTHYLENE	208-96-8	2.50	9.42
ANTHRACENE	120-12-7	2.50	5.46
BENZO (A) ANTHRACENE	56-55-3	2.50	14.8
BENZO (B) FLUORANTHENE	205-99-2	2.50	80.0
BENZO (K) FLUORANTHENE	207-08-9	2.50	15.6
BENZO (A) PYRENE	50-32-8	2.50	47.1
BENZO (G,H,I) PERYLENE	191-24-2	10.0	209
CHRYSENE	218-01-9	2.50	53.4
DIBENZO (A,H) ANTHRACENE	53-70-3	10.0	36.5
FLUORANTHENE	206-44-0	2.50	8.07
FLUORENE	86-73-7	2.50	ND
INDENO (1,2,3-CD) PYRENE	193-39-5	10.0	41.8
NAPHTHALENE	91-20-3	2.50	14.0
PHENANTHRENE	85-01-8	2.50	19.3
PYRENE	129-00-0	2.50	29.5

SURROGATE RECOVERY	%
2-FLUOROBIPHENYL	96
P-TERPHENYL-D14	95

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT APPLICABLE OR AVAILABLE

APPROVED BY: M

LABORATORY REPORT

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W2-1

LAB NO: 136821 DATE SAMPLED: 09/17/2015

TIME SAMPLED: 9:40

BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED:** 09/23/2015

METHOD: SEMIVOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 3550/8270-SIM

SAMPLE TYPE: SOIL

UNITS: ug/Kg

COMPOUND NAME	CAS	REPORTING	SAMPLE
	NUMBER	LIMIT	CONC
ACENAPHTHENE	83-32-9	2.50	ND
ACENAPHTHYLENE	208-96-8	2.50	14.8
ANTHRACENE	120-12-7	2.50	10.1
BENZO (A) ANTHRACENE	56-55-3	2.50	55.1
BENZO (B) FLUORANTHENE	205-99-2	2.50	132
BENZO (K) FLUORANTHENE	207-08-9	2.50	35.8
BENZO (A) PYRENE	50-32-8	2.50	99.8
BENZO (G,H,I) PERYLENE	191-24-2	10.0	255
CHRYSENE	218-01-9	2.50	79.6
DIBENZO (A,H) ANTHRACENE	53-70-3	10.0	59.3
FLUORANTHENE	206-44-0	2.50	31.5
FLUORENE	86-73-7	2.50	ND
INDENO (1,2,3-CD) PYRENE	193-39-5	10.0	103
NAPHTHALENE	91-20-3	2.50	26.2
PHENANTHRENE	85-01-8	2.50	36.0
PYRENE	129-00-0	2.50	97.1

SURROGATE RECOVER	Υ %
2-FLUOROBIPHENYL	94
P-TERPHENYL-D14	93

NOTES

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT APPLICABLE OR AVAILABLE

APPROVED BY:

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W3-1 LAB NO: 136824 **DATE SAMPLED:** 09/17/2015 TIME SAMPLED: 15:35 BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED:** 09/23/2015

METHOD: SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE TYPE: SOIL REFERENCE: EPA 3550/8270-SIM

UNITS: ug/Kg

COMPOUND NAME	CAS NUMBER	REPORTING LIMIT	SAMPLE CONC
ACENAPHTHENE	83-32-9	2.50	ND
ACENAPHTHYLENE	208-96-8	2.50	11.3
ANTHRACENE	120-12-7	2.50	6.73
BENZO (A) ANTHRACENE	56-55-3	2.50	26.0
BENZO (B) FLUORANTHENE	205-99-2	2.50	176
BENZO (K) FLUORANTHENE	207-08-9	2.50	27.0
BENZO (A) PYRENE	50-32-8	2.50	87.4
BENZO (G,H,I) PERYLENE	191-24-2	10.0	240
CHRYSENE	218-01-9	2.50	130
DIBENZO (A,H) ANTHRACENE	53-70-3	10.0	98.1
FLUORANTHENE	206-44-0	2.50	14.4
FLUORENE	86-73-7	2.50	23.0
INDENO (1,2,3-CD) PYRENE	193-39-5	10.0	87.3
NAPHTHALENE	91-20-3	2.50	12.3
PHENANTHRENE	85-01-8	2.50	49.2
PYRENE	129-00-0	2.50	101

SURROGATE RECOVERY	%
2-FLUOROBIPHENYL	97
P-TERPHENYL-D14	100

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT APPLICABLE OR AVAILABLE

APPROVED BY: Ah

LABORATORY REPORT

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W4-1

LAB NO: 136827 **DATE SAMPLED**: 09/17/2015

TIME SAMPLED: 10:30

BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015
DATE ANALYZED: 09/23/2015

METHOD: SEMIVOLATILE ORGANIC COMPOUNDS SAMPLE TYPE: SOIL REFERENCE: EPA 3550/8270-SIM UNITS: ug/Kg

COMPOUND NAME	CAS NUMBER	REPORTING LIMIT	SAMPLE CONC
ACENAPHTHENE	83-32-9	2.50	ND
ACENAPHTHYLENE	208-96-8	2.50	32.0
ANTHRACENE	120-12-7	2.50	25.9
BENZO (A) ANTHRACENE	56-55-3	2.50	105
BENZO (B) FLUORANTHENE	205-99-2	2.50	178
BENZO (K) FLUORANTHENE	207-08-9	2.50	60.7
BENZO (A) PYRENE	50-32-8	2.50	119
BENZO (G,H,I) PERYLENE	191-24-2	10.0	287
CHRYSENE	218-01-9	2.50	91.9
DIBENZO (A,H) ANTHRACENE	53-70-3	10.0	70.6
FLUORANTHENE	206-44-0	2.50	87.0
FLUORENE	86-73-7	2.50	28.2
INDENO (1,2,3-CD) PYRENE	193-39-5	10.0	107
NAPHTHALENE	91-20-3	2.50	13.9
PHENANTHRENE	85-01-8	2.50	129
PYRENE	129-00-0	2.50	184

SURROGATE RECOVERY	%
2-FLUOROBIPHENYL	93
P-TERPHENYL-D14	98

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT APPLICABLE OR AVAILABLE

APPROVED BY: <u>CW</u> DATE: <u>09/25/2015</u>

K PRIME PROJECT: 9946

INDENO (1,2,3-CD) PYRENE

NAPHTHALENE

PYRENE

PHENANTHRENE

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W5-1 LAB NO: 136830 **DATE SAMPLED:** 09/17/2015

TIME SAMPLED: 15:20 BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED: 09/23/2015**

METHOD: SEMIVOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 3550/8270-SIM

SAMPLE TYPE: SOIL UNITS: ug/Kg

10.0

2.50

2.50

2.50

99.6

11.4

49.7

127

COMPOUND NAME	CAS NUMBER	REPORTING LIMIT	SAMPLE CONC
ACENAPHTHENE	83-32-9	2.50	ND
ACENAPHTHYLENE	208-96-8	2.50	20.3
ANTHRACENE	120-12-7	2.50	18.3
BENZO (A) ANTHRACENE	56-55-3	2.50	67.5
BENZO (B) FLUORANTHENE	205-99-2	2.50	130
BENZO (K) FLUORANTHENE	207-08-9	2.50	47.2
BENZO (A) PYRENE	50-32-8	2.50	81.5
BENZO (G,H,I) PERYLENE	191-24-2	10.0	159
CHRYSENE	218-01-9	2.50	75.9
DIBENZO (A,H) ANTHRACENE	53-70-3	10.0	26.0
FLUORANTHENE	206-44-0	2.50	74.0
FLUORENE	86-73-7	2.50	ND

193-39-5

91-20-3

85-01-8

129-00-0

SURROGATE RECOVERY	%
2-FLUOROBIPHENYL	94
P-TERPHENYL-D14	88

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT APPLICABLE OR AVAILABLE

APPROVED BY: <u>(h)</u> DATE: <u>09/25/2015</u>

LABORATORY REPORT

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W6-1 LAB NO: 136833 DATE SAMPLED: 09/17/2015

TIME SAMPLED: 14:50 BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015
DATE ANALYZED: 09/23/2015

METHOD: SEMIVOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 3550/8270-SIM

SAMPLE TYPE: SOIL UNITS: ug/Kg

COMPOUND NAME	CAS NUMBER	REPORTING LIMIT	SAMPLE CONC
ACENAPHTHENE	83-32-9	2.50	ND
ACENAPHTHYLENE	208-96-8	2.50	17.7
ANTHRACENE	120-12-7	2.50	9.44
BENZO (A) ANTHRACENE	56-55-3	2.50	36.9
BENZO (B) FLUORANTHENE	205-99-2	2.50	74.5
BENZO (K) FLUORANTHENE	207-08-9	2.50	28.3
BENZO (A) PYRENE	50-32-8	2.50	44.4
BENZO (G,H,I) PERYLENE	191-24-2	10.0	226
CHRYSENE	218-01-9	2.50	40.5
DIBENZO (A,H) ANTHRACENE	53-70-3	10.0	430
FLUORANTHENE	206-44-0	2.50	28.2
FLUORENE	86-73-7	2.50	19.5
INDENO (1,2,3-CD) PYRENE	193-39-5	10.0	59.2
NAPHTHALENE	91-20-3	2.50	11.7
PHENANTHRENE	85-01-8	2.50	38.3
PYRENE	129-00-0	2.50	72.6

SURROGATE RECOVERY	%
2-FLUOROBIPHENYL	91
P-TERPHENYL-D14	98

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT APPLICABLE OR AVAILABLE

APPROVED BY: <u>(h)</u> DATE: <u>09/25/2015</u>

LABORATORY REPORT

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W7-1 LAB NO: 136836 DATE SAMPLED: 09/17/2015

TIME SAMPLED: 9:55 BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED:** 09/23/2015

METHOD: SEMIVOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 3550/8270-SIM

SAMPLE TYPE: SOIL UNITS: ug/Kg

COMPOUND NAME	CAS	REPORTING	SAMPLE
	NUMBER	LIMIT	CONC
ACENAPHTHENE	83-32-9	2.50	ND
ACENAPHTHYLENE	208-96-8	2.50	18.8
ANTHRACENE	120-12-7	2.50	15.7
BENZO (A) ANTHRACENE	56-55-3	2.50	61.2
BENZO (B) FLUORANTHENE	205-99-2	2.50	187
BENZO (K) FLUORANTHENE	207-08-9	2.50	45.2
BENZO (A) PYRENE	50-32-8	2.50	111
BENZO (G,H,I) PERYLENE	191-24-2	10.0	264
CHRYSENE	218-01-9	2.50	97.2
DIBENZO (A,H) ANTHRACENE	53-70-3	10.0	77.3
FLUORANTHENE	206-44-0	2.50	50.7
FLUORENE	86-73-7	2.50	9.02
INDENO (1,2,3-CD) PYRENE	193-39-5	10.0	120
NAPHTHALENE	91-20-3	2.50	13.5
PHENANTHRENE	85-01-8	2.50	84.2
PYRENE	129-00-0	2.50	144

SURROGATE RECOVERY	%
2-FLUOROBIPHENYL	96
P-TERPHENYL-D14	85

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT APPLICABLE OR AVAILABLE

APPROVED BY: (1) DATE: 09/25/2015

LABORATORY REPORT

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W8-1 LAB NO: 136839 DATE SAMPLED: 09/17/2015

TIME SAMPLED: 15:05 BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED:** 09/23/2015

METHOD: SEMIVOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 3550/8270-SIM

SAMPLE TYPE: SOIL UNITS: ug/Kg

COMPOUND NAME	CAS NUMBER	REPORTING LIMIT	SAMPLE CONC
ACENAPHTHENE	83-32-9	2.50	ND
ACENAPHTHYLENE	208-96-8	2.50	13.9
ANTHRACENE	120-12-7	2.50	6.45
BENZO (A) ANTHRACENE	56-55-3	2.50	41.7
BENZO (B) FLUORANTHENE	205-99-2	2.50	134
BENZO (K) FLUORANTHENE	207-08-9	2.50	38.5
BENZO (A) PYRENE	50-32-8	2.50	75.2
BENZO (G,H,I) PERYLENE	191-24-2	10.0	234
CHRYSENE	218-01-9	2.50	80.1
DIBENZO (A,H) ANTHRACENE	53-70-3	10.0	73.1
FLUORANTHENE	206-44-0	2.50	17.1
FLUORENE	86-73-7	2.50	13.0
INDENO (1,2,3-CD) PYRENE	193-39-5	10.0	99.7
NAPHTHALENE	91-20-3	2.50	23.6
PHENANTHRENE	85-01-8	2.50	30.9
PYRENE	129-00-0	2.50	48.4

SURROGATE RECOVERY	%
2-FLUOROBIPHENYL	97
P-TERPHENYL-D14	91

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

APPROVED BY: <u>(M)</u>
DATE: <u>09/25/2015</u>

K PRIME PROJECT: 9946 SAMPLE TYPE: SOIL CLIENT PROJECT: HOLLIDAY.WEST OAKLAND UNITS: mg/Kg

SAMPLE ID	LAB ID	BATCH #	DATE SAMPLED	DATE ANALYZED	REPORTING LIMIT	SAMPLE CONC
W1-1	136818	092115S1	09/17/2015	09/22/2015	2.50	3.58
W1-3	136819	092115S1	09/17/2015	09/22/2015	2.50	ND
W1-6	136820	092115S1	09/17/2015	09/22/2015	2.50	ND
W2-1	136821	092115S1	09/17/2015	09/22/2015	2.50	7.21
W2-6	136823	092115S1	09/17/2015	09/22/2015	2.50	ND
W3-3	136825	092115S1	09/17/2015	09/22/2015	2.50	ND
W3-6	136826	092115S1	09/17/2015	09/22/2015	2.50	ND
W4-1	136827	092115S1	09/17/2015	09/22/2015	2.50	3.54
W4-6	136829	092115S1	09/17/2015	09/22/2015	2.50	ND
W5-1	136830	092115S1	09/17/2015	09/22/2015	2.50	5.60
W5-3	136831	092115S1	09/17/2015	09/22/2015	2.50	ND
W5-6	136832	092115S1	09/17/2015	09/22/2015	2.50	ND
W6-1	136833	092115S1	09/17/2015	09/22/2015	2.50	4.34
W6-3	136834	092115S1	09/17/2015	09/22/2015	2.50	4.36
W7-1	136836	092115S1	09/17/2015	09/22/2015	2.50	4.90
W7-3	136837	092115S1	09/17/2015	09/22/2015	2.50	2.50
W7-6	136838	092115S1	09/17/2015	09/22/2015	2.50	2.64
W8-1	136839	092115S1	09/17/2015	09/22/2015	2.50	3.28
W8-3	136840	092115S1	09/17/2015	09/22/2015	2.50	2.76
W8-6	136841	092115S1	09/17/2015	09/22/2015	2.50	2.93

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY:

METHOD: TOTAL ARSENIC

REFERENCE: EPA 3050B/6020A

METHOD: TOTAL LEAD REFERENCE: EPA 3050B/6020A

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE TYPE: SOIL UNITS: mg/Kg

SAMPLE	LAB	BATCH	DATE	DATE	REPORTING	SAMPLE
ID	ID	#	SAMPLED	ANALYZED	LIMIT	CONC
W1-1	136818	092115S1	09/17/2015	09/22/2015	2.50	25.9
W1-3	136819	092115S1	09/17/2015	09/22/2015	2.50	119
W1-6	136820	092115S1	09/17/2015	09/22/2015	2.50	3.45
W2-1	136821	092115S1	09/17/2015	09/22/2015	2.50	36.4
W2-6	136823	092115S1	09/17/2015	09/22/2015	2.50	ND
W3-3	136825	092115S1	09/17/2015	09/22/2015	2.50	169
W3-6	136826	092115S1	09/17/2015	09/22/2015	2.50	1360
W4-1	136827	092115S1	09/17/2015	09/22/2015	2.50	24.7
W4-6	136829	092115S1	09/17/2015	09/22/2015	2.50	ND
W5-1	136830	092115S1	09/17/2015	09/22/2015	2.50	510
W5-3	136831	092115S1	09/17/2015	09/22/2015	2.50	50.2
W5-6	136832	092115S1	09/17/2015	09/22/2015	2.50	ND
W6-1	136833	092115S1	09/17/2015	09/22/2015	2.50	25.5
W6-3	136834	092115S1	09/17/2015	09/22/2015	2.50	316
W7-1	136836	092115S1	09/17/2015	09/22/2015	2.50	18.9
W7-3	136837	092115S1	09/17/2015	09/22/2015	2.50	199
W7-6	136838	092115S1	09/17/2015	09/22/2015	2.50	2.87
W8-1	136839	092115S1	09/17/2015	09/22/2015	2.50	20.1
W8-3	136840	092115S1	09/17/2015	09/22/2015	2.50	174
W8-6	136841	092115S1	09/17/2015	09/22/2015	2.50	3.58

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY: W

LAB NO: 136822

DATE SAMPLED: 09/17/2015

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

LAB NO: 136822

DATE SAMPLED: 09/17/2015

TIME SAMPLED: 9:45

BATCH ID: 090915S1

METHOD: TOTAL METALS BY ICP/MS SAMPLE TYPE: SOIL REFERENCE: EPA 3050B/6020A UNITS: mg/Kg

ELEMENT NAME		DATE ANALYZED	REPORTING LIMIT	SAMPLE CONC
ANTIMONY	Sb	09/23/2015	2.50	ND
ARSENIC	As	09/23/2015	2.50	6.91
BARIUM	Ва	09/23/2015	2.50	1790
BERYLLIUM	Be	09/23/2015	2.50	ND
CADMIUM	Cd	09/23/2015	2.50	ND
CHROMIUM	Cr	09/23/2015	2.50	25.6
COBALT	Со	09/23/2015	2.50	3.92
COPPER	Cu	09/23/2015	2.50	37.7
LEAD	Pb	09/23/2015	2.50	661
MERCURY	Hg	09/23/2015	0.100	0.380
MOLYBDENUM	Мо	09/23/2015	2.50	ND
NICKEL	Ni	09/23/2015	2.50	20.0
SELENIUM	Se	09/23/2015	2.50	ND
SILVER	Ag	09/23/2015	2.50	ND
THALLIUM	TI	09/23/2015	2.50	ND
VANADIUM	V	09/23/2015	2.50	28.5
ZINC	Zn	09/23/2015	2.50	688

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY: (1) DATE: 09/25/00/5

SAMPLE ID: W2-3

LAB NO: 136824 DATE SAMPLED: 09/17/2015 K PRIME PROJECT: 9946 TIME SAMPLED: 15:35 BATCH ID: 090915S1 CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE ID: W3-1

METHOD: TOTAL METALS BY ICP/MS **SAMPLE TYPE: SOIL** REFERENCE: EPA 3050B/6020A UNITS: mg/Kg

ELEMENT		DATE	REPORTING	SAMPLE
NAME		ANALYZED	LIMIT	CONC
ANTIMONY	Sb	09/23/2015	2.50	ND
ARSENIC	As	09/23/2015	2.50	2.61
BARIUM	Ва	09/23/2015	2.50	99.1
BERYLLIUM	Be	09/23/2015	2.50	ND
CADMIUM	Cd	09/23/2015	2.50	ND
CHROMIUM	Cr	09/23/2015	2.50	23.1
COBALT	Со	09/23/2015	2.50	8.18
COPPER	Cu	09/23/2015	2.50	40.1
LEAD	Pb	09/23/2015	2.50	19.6
MERCURY	Hg	09/23/2015	0.100	0.127
MOLYBDENUM	Мо	09/23/2015	2.50	ND
NICKEL	Ni	09/23/2015	2.50	27.8
SELENIUM	Se	09/23/2015	2.50	ND
SILVER	Ag	09/23/2015	2.50	ND
THALLIUM	Ti	09/23/2015	2.50	ND
VANADIUM	V	09/23/2015	2.50	43.2
ZINC	Zn	09/23/2015	2.50	87.1

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY: 100 DATE: 09/25/8015

LAB NO: 136828

DATE SAMPLED: 09/17/2015

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

LAB NO: 136828

DATE SAMPLED: 09/17/2015

TIME SAMPLED: 10:35

BATCH ID: 090915S1

METHOD: TOTAL METALS BY ICP/MS SAMPLE TYPE: SOIL REFERENCE: EPA 3050B/6020A UNITS: mg/Kg

ELEMENT NAME		DATE ANALYZED	REPORTING LIMIT	SAMPLE CONC
ANTIMONY	Sb	09/23/2015	2.50	ND
ARSENIC	As	09/23/2015	2.50	7.17
BARIUM	Ва	09/23/2015	2.50	990
BERYLLIUM	Be	09/23/2015	2.50	ND
CADMIUM	Cd	09/23/2015	2.50	ND
CHROMIUM	Cr	09/23/2015	2.50	29.9
COBALT	Со	09/23/2015	2.50	6.35
COPPER	Cu	09/23/2015	2.50	43.4
LEAD	Pb	09/23/2015	2.50	2180
MERCURY	Hg	09/23/2015	0.100	0.344
MOLYBDENUM	Мо	09/23/2015	2.50	ND
NICKEL	Ni	09/23/2015	2.50	34.5
SELENIUM	Se	09/23/2015	2.50	ND
SILVER	Ag	09/23/2015	2.50	ND
THALLIUM	TI	09/23/2015	2.50	ND
VANADIUM	V	09/23/2015	2.50	26.7
ZINC	Zn	09/23/2015	2.50	701

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY: (1)
DATE: (79/25/2015

SAMPLE ID: W4-3

SAMPLE ID: W6-6 LABORATORY REPORT **LAB NO: 136835 DATE SAMPLED:** 09/17/2015 K PRIME PROJECT: 9946 TIME SAMPLED: 15:00 CLIENT PROJECT: HOLLIDAY.WEST OAKLAND BATCH ID: 090915S1

METHOD: TOTAL METALS BY ICP/MS SAMPLE TYPE: SOIL REFERENCE: EPA 3050B/6020A UNITS: mg/Kg

ELEMENT NAME		DATE ANALYZED	REPORTING LIMIT	SAMPLE CONC
ANTIMONY	Sb	09/23/2015	2.50	ND
ARSENIC	As	09/23/2015	2.50	ND
BARIUM	Ва	09/23/2015	2.50	36.1
BERYLLIUM	Be	09/23/2015	2.50	ND
CADMIUM	Cd	09/23/2015	2.50	ND
CHROMIUM	Cr	09/23/2015	2.50	22.3
COBALT	Со	09/23/2015	2.50	ND
COPPER	Cu	09/23/2015	2.50	4.04
LEAD	Pb	09/23/2015	2.50	7.87
MERCURY	Hg	09/23/2015	0.100	ND
MOLYBDENUM	Мо	09/23/2015	2.50	ND
NICKEL	Ni	09/23/2015	2.50	11.9
SELENIUM	Se	09/23/2015	2.50	ND
SILVER	Ag	09/23/2015	2.50	ND
THALLIUM	TI	09/23/2015	2.50	ND
VANADIUM	V	09/23/2015	2.50	15.6
ZINC	Zn	09/23/2015	2.50	12.8

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA - NOT AVAILABLE OR APPLICABLE

APPROVED BY:

METHOD BLANK ID: B092115S1

BATCH #: 092115S1 **DATE EXTRACTED**: 09/21/2015

DATE ANALYZED: 09/22/2015

METHOD: ORGANOCHLORINE PESTICIDES

REFERENCE: EPA 3550/8081

SAMPLE TYPE: SOIL

UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ALPHA-BHC	319-84-6	2.50	ND
BETA-BHC	319-85-7	2.50	ND
GAMMA-BHC (LINDANE)	58-89-9	2.50	ND
HEPTACHLOR	76-44-8	2.50	ND
DELTA-BHC	319-86-8	2.50	ND
ALDRIN	309-00-2	2.50	ND
HEPTACHLOR EPOXIDE	1024-57-3	2.50	ND
ENDOSULFAN I	959-98-8	2.50	ND
4,4'-DDE	72-55-9	5.00	ND
DIELDRIN	60-57-1	5.00	ND
ENDRIN	72-20-8	5.00	ND
4,4'-DDD	72-54-8	5.00	ND
ENDOSULFAN II	33212-65-9	5.00	ND
4,4'-DDT	50-29-3	5.00	ND
ENDRIN ALDEHYDE	7421-93-4	5.00	ND
ENDOSULFAN SULFATE	1031-07-8	5.00	ND
METHOXYCHLOR	72-43-5	12.5	ND
CHLORDANE	57-74-9	12.5	ND
TOXAPHENE	8001-35-2	62.5	ND

SURROGATE RECOVERY	%
TCMX	103
DCBP	95

NOTES:

ND - NOT DETECTED ABOVE THE STATED REPORTING LIMIT

NA - NOT AVAILABLE OR APPLICABLE

SAMPLE ID: L092115S1 DUPLICATE ID: D092115S1 BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED:** 09/22/2015

METHOD: ORGANOCHLORINE PESTICIDES

SAMPLE TYPE: SOIL REFERENCE: EPA 3550/8081 UNITS: ug/Kg

ACCURACY (MATRIX SPIKE)

PARAMETER	SPIKE	SAMPLE	SPIKE	RECOVERY	LIMITS
	ADDED	RESULT	RESULT	(%)	(%)
GAMMA-BHC (LINDANE)	125	ND	121	97	50-150
HEPTACHLOR	125	ND	151	121	50-150
ALDRIN	125	ND	137	110	50-150
DIELDRIN	125	ND	145	116	50-150
ENDRIN	125	ND	142	113	50-150
DDT	125	ND	178	142	50-150

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING	SPIKE	DUPLICATE	RPD	LIMITS
	LIMIT	RESULT	RESULT	(%)	(%)
GAMMA-BHC (LINDANE)	2.50	121	133	8.9	±40
HEPTACHLOR	2.50	151	142	6.5	±40
ALDRIN	2.50	137	159	14.7	±40
DIELDRIN	5.00	145	144	0.1	±40
ENDRIN	5.00	142	138	2.7	±40
DDT	5.00	178	176	1.0	±40

LABORATORY QC REPORT

METHOD BLANK ID: B092115S1

BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED:** 09/22/2015

METHOD: SEMIVOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 3550/8270-SIM

SAMPLE TYPE: SOIL

UNITS: ug/Kg

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
ACENAPHTHENE	83-32-9	2.50	ND
ACENAPHTHYLENE	208-96-8	2.50	ND
ANTHRACENE	120-12-7	2.50	ND
BENZO (A) ANTHRACENE	56-55-3	2.50	ND
BENZO (B) FLUORANTHENE	205-99-2	2.50	ND
BENZO (K) FLUORANTHENE	207-08-9	2.50	ND
BENZO (A) PYRENE	50-32-8	2.50	ND
BENZO (G,H,I) PERYLENE	191-24-2	10.0	ND
CHRYSENE	218-01-9	2.50	ND
DIBENZO (A,H) ANTHRACENE	53-70-3	10.0	ND
FLUORANTHENE	206-44-0	2.50	ND
FLUORENE	86-73-7	2.50	ND
INDENO (1,2,3-CD) PYRENE	193-39-5	10.0	ND
NAPHTHALENE	91-20-3	2.50	ND
PHENANTHRENE	85-01-8	2.50	ND
PYRENE	129-00-0	2.50	ND

SURROGATE	RECOVERY
-----------	----------

2-FLUOROBIPHENYL	103
P-TERPHENYL-D14	104

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

SAMPLE ID: L092115S1 **DUPLICATE ID**: D092115S1

BATCH #: 092115S1

DATE EXTRACTED: 09/21/2015 **DATE ANALYZED:** 09/22/2015

METHOD: SEMIVOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 3550/8270-SIM

SAMPLE TYPE: SOIL

UNITS: ug/Kg

ACCURACY (MATRIX SPIKE)

PARAMETER	SPIKE	SAMPLE	SPIKE	RECOVERY	LIMITS
	ADDED	RESULT	RESULT	(%)	(%)
ACENAPHTHENE	100	ND	98.5	99	40-140
PYRENE	100	ND	95.9	96	40-140

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING	SPIKE	DUPLICATE	RPD	LIMITS
	LIMIT	RESULT	RESULT	(%)	(%)
ACENAPHTHENE	2.50	98.5	99.0	0.4	±30
PYRENE	2.50	95.9	102	6.1	±30

K PRIME, INC.
LABORATORY BATCH QC REPORT

SAMPLE ID: L092115S1

DUPLICATE ID: D092115S1

METHOD BLANK ID: B092115S1

BATCH #: 092115S1

DATE ANALYZED: 09/22/2015

METHOD: TOTAL METALS BY ICP/MS SAMPLE TYPE: SOIL REFERENCE: EPA 3050B/6020A UNITS: mg/Kg

ELEMENT		MB	SA	SR	SP	SPD	SP	RPD
		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	%R	%
ARSENIC	As	<2.50	25.0	0.0	23.9	24.2	96	1.1
LEAD	Pb	<2.50	25.0	0.0	24.6	24.9	99	1.2

NOTES:

ND: NOT DETECTED
MB: METHOD BLANK
SA: SPIKE ADDED
SR: SAMPLE RESULT
SP: SPIKE RESULT

SPD: SPIKE DUPLICATE RESULT SP(%R): SPIKE % RECOVERY

RPD: RELATIVE PERCENT DIFFERENCE

K PRIME, INC.
LABORATORY BATCH QC REPORT

SAMPLE ID: MS136819
DUPLICATE ID: SD136819
METHOD BLANK ID: B092115S1
BATCH #: 092115S1

DATE ANALYZED: 09/22/2015

METHOD: TOTAL METALS BY ICP/MS SAMPLE TYPE: SOIL REFERENCE: EPA 3050B/6020A UNITS: mg/Kg

ELEMENT		MB	SA	SR	SP	SPD	SP	RPD
		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	%R	%
ARSENIC	As	<2.50	25.0	2.25	25.3	25.4	92	0.3
LEAD	Pb	<2.50	25.0	119	141	139	87	1.6

NOTES:

ND: NOT DETECTED MB: METHOD BLANK SA: SPIKE ADDED SR: SAMPLE RESULT SP: SPIKE RESULT

SPD: SPIKE DUPLICATE RESULT SP(%R): SPIKE % RECOVERY

RPD: RELATIVE PERCENT DIFFERENCE

K PRIME, INC. LABORATORY BATCH QC REPORT

SAMPLE ID: L090915S1

DUPLICATE ID: D090915S1

METHOD BLANK ID: B092115S2

BATCH #: 090915S1

DATE ANALYZED: 09/11/2015

METHOD: TOTAL METALS BY ICP/MS

REFERENCE: EPA 3050B/6020A

SAMPLE TYPE: SOIL
UNITS: mg/Kg

ELEMENT		MB	SA	SR	SP	SPD	SP	RPD
		mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	%R	%
ANTIMONY	Sb	<2.50	25.0	0.0	25.6	25.1	102	2.1
ARSENIC	As	<2.50	25.0	0.0	23.9	23.7	96	1.2
BARIUM	Ва	<2.50	25.0	0.0	25.0	24.5	100	1.9
BERYLLIUM	Be	<2.50	25.0	0.0	23.5	23.4	94	0.6
CADMIUM	Cd	<2.50	25.0	0.0	24.5	24.1	98	1.9
CHROMIUM	Cr	<2.50	25.0	0.0	24.3	23.5	97	3.1
COBALT	Со	<2.50	25.0	0.0	23.4	22.8	94	2.7
COPPER	Cu	<2.50	25.0	0.0	23.5	22.6	94	3.8
LEAD	Pb	<2.50	25.0	0.0	25.5	25.2	102	1.1
MERCURY	Hg	<0.100	1.00	0.0	0.987	0.958	99	3.0
MOLYBDENUM	Мо	<2.50	25.0	0.0	24.3	23.6	97	2.9
NICKEL	Ni	<2.50	25.0	0.0	23.6	23.0	94	2.6
SELENIUM	Se	<2.50	25.0	0.0	25.1	24.9	100	0.8
SILVER	Ag	<2.50	12.5	0.0	10.7	10.9	86	1.1
THALLIUM	TI	<2.50	25.0	0.0	25.2	25.0	101	1.0
VANADIUM	V	<2.50	25.0	0.0	24.1	23.6	97	2.3
ZINC	Zn	<2.50	25.0	0.0	23.3	23.0	93	1.6

NOTES:

ND: NOT DETECTED MB: METHOD BLANK SA: SPIKE ADDED SR: SAMPLE RESULT SP: SPIKE RESULT

SPD: SPIKE DUPLICATE RESULT SP(%R): SPIKE % RECOVERY

RPD: RELATIVE PERCENT DIFFERENCE



711 Grand Avenue, Suite 220 San Rafael, California 94901 415.460.6770 • Fax 415.460.6771 main@westenvironmental.com

SAMPLE ANALYSIS/COMPOSITE REQUEST FORM

CHAIN-OF-CUSTODY

Invoice to: WEST, Inc						Date: 9/18/15 Page of 2													
Project: Holliday.West	t Oakland						Loc	ation	: 5th	& N	lagn	olia S	tree	ts, W	est C	akla	nd		
Project Manager: Pete	er Morris, WES	T, Inc.					Pho	ne:	415/4	60-6	770				Fax	: 415/	460-	6771	
Laboratory: KPrime, I	nc, Santa Rosa,	CA					Tur			time	1	2	3	5	7	10		Std.	
Sampler Signature:	+->-	cA)	1					(da	ays)			1						X	
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Sample ID	KPI #	Date	Time	Type	# Containers	Composite	Pesticides (8081A)	PAHs (8270C)	Arsenic, Lead (6020)	Title 22 Metals (6000/7000)	VOCs (8260B)	TPHg/TPHd (8015M)*							НОГР
W1-1	136818	9/17/15	1015	5			X	X	X										
W1-3	136819	1	1020	5	1.	***************************************			\times										
W1-6	136820		1025	S	ì				X										
W2-1	136821		0940	5	(water		X	X	X										
WZ-3	136822		0945	5	1		ĺ			X									
WZ-6	136823		0950	5	Ì	1 departments			X										
W3-1	136824	and the same of th	1535	5		_	X	X		X									
W3-3	136825	A SALES OF THE SAL	1540	5	1	(paggalatin,			X										
W3-3 W3-6	136826		1545	5	i	Commission			X										
W4-1	136827		1030	5)	_	X	X	X										
W4-3	136828		1035	5	1	,	,			又									
W4-6	136829	9/17/15	1040	5	, (managed				X										
NOTES: *silica gel clean	rup for TPHd	11412	1,0,1							l	l								
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							-	Glob	al ID	:									
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711 Grand Avenue, Suite 220 San Rafael, California 94901 415.460.6770 • Fax 415.460.6771 main@westenvironmental.com

SAMPLE ANALYSIS/COMPOSITE REQUEST FORM

CHAIN-OF-CUSTODY

Invoice to: WEST, Inc						Date: 9/18/15 Page 2 of 2													
Project: Holliday.Wes	t Oakland						Loc	ation	: 5th	& N	lagn	olia S	Stree	ts, W	est C	akla	nd		
Project Manager: Pete	er Morris, WES	T, Inc.					Pho	ne:	415/4	60-6	770	·	w		Fax	415	460-	6771	
Laboratory: KPrime, I	nc, Santa Rosa,	CA					Tui	rnarc		time	1	2 2 2	3	5	7	10		Std.	
Sampler Signature:	4	1111						(da	ays)		i !	:		· .				X	
		W									Aı	alys	es Re	eques	sted				
Sample ID	KPI#	Date	Time	Type	# Containers	Composite	Pesticides (8081A)	PAHs (8270C)	Arsenic, Lead (6020)	Title 22 Metals (6000/7000)	VOCs (8260B)	TPHg/TPHd (8015M)*							НОГР
W5-1 W5-3 W5-6 W6-1	136830	9/17/15	1520	5	\		X	Χ	Х										
W5-3	136831	1	1525	S	l				X										
W5-6	136832		1530	5	l				X										
W6-1	136833		1450	S	1	Common.	X	X	X										
W6-3	136834		1455	5	1				X										
W6-6	136835		1500	5	***************************************					X									
W6-3 W6-6 W7-1	136836		0955	S)		Χ	X	X										
W7-3	136837		1000	S)				X										P
W7-6	136838		1009	5	Ì	_			X										
W8-1	136839		1505	5			X	X	入										
W8-3	136840	1	1510	5	-	Nagarana.			X										
W8-6		9/17/15		S		-			X										
NOTES: *silica gel clear	up for TPHd						ſ		EDF	,		Log (ode.	,	WI	ESS			
							L	 Glob				Log		•	1 VV	233			
Relinquished by: (Signatu	re)	10 11	9/18/19	Date/T	ime 8:5	6	Že	Re	ceive	d by:	(Sig	natur	e)		9/1	. Date	e/Tin	ne 85	6
Relinquished by: (Signature) Date/Tin 9/18/15 09:50					Æ	Re	ceive	d by:	(Sig	nature	e)		9/1	Date 18/1					

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd. Santa Rosa CA 95403 Phone: 707 527 7574 FAX: 707 527 7879

TRANSMITTAL

DATE: 9/22/2015

TO: MR. PETER MORRIS ACCT: 9946

WEST ENVIRONMENTAL S&T PROJ: HOLLIDAY.WEST OAKLAND

711 GRAND AVENUE, SUITE 220

SAN RAFAEL, CA 94901

Phone: 415-460-6770 Fax: 415-460-6771

Email: main@westenvironmental.com

FROM: Richard A. Kagel, Ph.D. AMI 9/22/2015

Laboratory Director

SUBJECT: LABORATORY RESULTS FOR YOUR PROJECT HOLLIDAY. WEST OAKLAND

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	TYPE	DATE	TIME	KPI LAB #
W1-5	AIR	9/17/2015	12:45	136842
W2-5	AIR	9/17/2015	11:51	136843
W4-5	AIR	9/17/2015	13:11	136844
W7-5	AIR	9/17/2015	12:18	136845

The above listed sample group was received on 9/18/2015 and tested as requested on the chain of custody document.

Please call me if you have any questions or need further information. Thank you for this opportunity to be of service.

K PRIME, INC.

LABORATORY REPORT

LAB NO:
SAMPLE TYPE:

 K PRIME PROJECT: 9946
 DATE SAMPLED: 09/17/2015
 09/17/2015

 CLIENT PROJECT: HOLLIDAY.WEST OAKLAND
 TIME SAMPLED: 12:45
 12:45

 BATCH ID: 09/14/5A1

W1-5

136842

METHOD: VOC'S IN AIR DATE ANALYZED: 09/18/2015

REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

		PPB (V/V)	μg/cu. ι	m
COMPOUND NAME	CAS NO.	MRL	SAMPLE CONC	MRL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	1.00	ND	4.95	ND
DICHLOROTETRAFLUOROETHANE	76-14-2	1.00	ND	6.99	ND
CHLOROMETHANE	74-87-3	1.00	ND	2.07	ND
VINYL CHLORIDE	75-01-4	1.00	ND	2.56	ND
BROMOMETHANE	74-83-9	1.00	ND	3.88	ND
CHLOROETHANE	75-00-3	1.00	ND	2.64	ND
TRICHLOROFLUOROMETHANE	75-69-4	1.00	2.98	5.62	16.7
1,1-DICHLOROETHENE	75-35-4	1.00	ND	3.97	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	1.00	ND	7.66	ND
METHYLENE CHLORIDE	75-09-2	1.00	ND	3.47	ND
1,1-DICHLOROETHANE	75-34-3	1.00	ND	4.05	ND
CIS-1,2-DICHLOROETHENE	156-59-2	1.00	ND	3.97	ND
CHLOROFORM	67-66-3	1.00	ND	4.88	ND
1,1,1-TRICHLOROETHANE	71-55-6	1.00	ND	5.46	ND
CARBON TETRACHLORIDE	56-23-5	1.00	ND	6.29	ND
1,2-DICHLOROETHANE	107-06-2	1.00	ND	4.05	ND
BENZENE	71-43-2	1.00	2.86	3.19	9,14
TRICHLOROETHENE	79-01-6	1.00	ND	5.37	ND
1,2-DICHLOROPROPANE	78-87-5	1.00	ND	4.62	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	1.00	ND	4.54	ND
TOLUENE	108-88-3	1.00	4.18	3.77	15.8
CIS-1,3-DICHLOROPROPENE	10061-01-5	1.00	ND	4.54	ND
1,1,2-TRICHLOROETHANE	79-00-5	1.00	ND	5.46	ND
TETRACHLOROETHENE	127-18-4	1.00	4.33	6.78	29.4
1,2-DIBROMOETHANE	106-93-4	1.00	ND	7.68	ND
CHLOROBENZENE	108-90-7	1.00	ND	4.60	ND
ETHYLBENZENE	100-41-4	1.00	1.06	4.34	4.60
XYLENE (M+P)	1330-20-7	1.00	3.05	4.34	13.2
XYLENE (O)	95-47-6	1.00	1.36	4.34	5.91
STYRENE	100-42-5	1.00	ND	4.26	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	1.00	ND	6.87	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	1.00	2.11	4.92	10.4
1,2,4-TRIMETHYLBENZENE	95-63-6	1.00	3.46	4.92	17.0
1,3-DICHLOROBENZENE	541-73-1	1.00	ND	6.01	ND
1,4-DICHLOROBENZENE	106-46-7	1.00	ND	6.01	ND
1,2-DICHLOROBENZENE	95-50-1	1.00	ND	6.01	ND
1,2,4-TRICHLOROBENZENE	120-82-1	2.00	ND	14.8	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND	10.7	ND

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

MRL - METHOD REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

 $\mu g/cu.$ m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

APPROVED BY: /411(DATE: 9/22/15

METHOD: VOC'S IN AIR

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: W2-5 LAB NO: 136843 SAMPLE TYPE: AIR DATE SAMPLED: 09/17/2015 TIME SAMPLED: 11:51 BATCH ID: 091415A1 DATE ANALYZED: 09/18/2015

		PPB	(V/V)	μg/c	u. m
COMPOUND NAME	CAS NO.	MRL	SAMPLE CONC	MRL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	5.00	ND	24.7	ND
DICHLOROTETRAFLUOROETHANE	76-14-2	5.00	ND	35.0	ND
CHLOROMETHANE	74-87-3	5.00	ND	10,3	ND
VINYL CHLORIDE	75-01-4	5.00	ND	12.8	ND
BROMOMETHANE	74-83-9	5.00	ND	19.4	ND
CHLOROETHANE	75-00-3	5.00	ND	13.2	ND
TRICHLOROFLUOROMETHANE	75-69-4	5.00	ND	28.1	ND
1,1-DICHLOROETHENE	75-35-4	5.00	ND	19.8	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	5.00	ND	38.3	ND
METHYLENE CHLORIDE	75-09-2	5.00	ND	17.4	ND
1,1-DICHLOROETHANE	75-34-3	5.00	ND	20.2	ND
CIS-1,2-DICHLOROETHENE	156-59-2	5.00	ND	19.8	ND
CHLOROFORM	67-66-3	5.00	ND	24.4	ND
1,1,1-TRICHLOROETHANE	71-55-6	5.00	ND	27.3	ND
CARBON TETRACHLORIDE	56-23-5	5.00	ND	31.5	ND
1,2-DICHLOROETHANE	107-06-2	5.00	ND	20.2	ND
BENZENE	71-43-2	5.00	ND	16.0	ND
TRICHLOROETHENE	79-01-6	5.00	ND	26.9	ND
1,2-DICHLOROPROPANE	78-87-5	5.00	ND	23.1	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	5.00	ND	22.7	ND
TOLUENE	108-88-3	5.00	ND	18.8	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	5.00	ND	22.7	ND
1,1,2-TRICHLOROETHANE	79-00-5	5.00	ND	27.3	ND
TETRACHLOROETHENE	127-18-4	5.00	33.1	33.9	224
1,2-DIBROMOETHANE	106-93-4	5.00	ND	38.4	ND
CHLOROBENZENE	108-90-7	5.00	ND	23.0	ND
ETHYLBENZENE	100-41-4	5.00	ND	21.7	ND
XYLENE (M+P)	1330-20-7	5.00	ND	21.7	ND
XYLENE (O)	95-47-6	5.00	ND	21.7	ND
STYRENE	100-42-5	5.00	ND	21.3	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	5.00	ND	34.3	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	5.00	ND	24.6	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	5.00	ND	24.6	ND
1,3-DICHLOROBENZENE	541-73-1	5.00	ND	30.1	ND
1,4-DICHLOROBENZENE	106-46-7	5.00	ND	30.1	ND
1,2-DICHLOROBENZENE	95-50-1	5.00	ND	30.1	ND
1,2,4-TRICHLOROBENZENE	120-82-1	10.0	ND	74.2	ND
ILLEVA OLI ODODI ELDIDI					

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

MRL - METHOD REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

μg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE

87-68-3

5.00

AND PRESSURE (NPT).

HEXACHLOROBUTADIENE

APPROVED BY: DATE:

ND

53.3

ND

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

METHOD: VOC'S IN AIR REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: W4-5 LAB NO: 136844 SAMPLE TYPE: AIR DATE SAMPLED: 09/17/2015 TIME SAMPLED: 13:11 BATCH ID: 091415A1 DATE ANALYZED: 09/18/2015

		PPB (V/V)	μg/cu. m	
COMPOUND NAME	CAS NO.	MRL	SAMPLE CONC	MRL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	5.00	ND	24.7	ND
DICHLOROTETRAFLUOROETHANE	76-14-2	5.00	ND	35.0	ND
CHLOROMETHANE	74-87-3	5.00	ND	10.3	ND
VINYL CHLORIDE	75-01-4	5.00	ND	12.8	ND
BROMOMETHANE	74-83-9	5.00	ND	19.4	ND
CHLOROETHANE	75-00-3	5.00	ND	13.2	ND
TRICHLOROFLUOROMETHANE	75-69-4	5.00	ND	28.1	ND
1,1-DICHLOROETHENE	75-35-4	5.00	ND	19.8	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	5.00	ND	38.3	ND
METHYLENE CHLORIDE	75-09-2	5.00	ND	17.4	ND
1,1-DICHLOROETHANE	75-34-3	5.00	ND	20.2	ND
CIS-1,2-DICHLOROETHENE	156-59-2	5.00	ND	19.8	ND
CHLOROFORM	67-66-3	5.00	ND	24.4	ND
1,1,1-TRICHLOROETHANE	71-55-6	5.00	ND	27.3	ND
CARBON TETRACHLORIDE	56-23-5	5.00	ND	31.5	ND
1,2-DICHLOROETHANE	107-06-2	5.00	ND	20.2	ND
BENZENE	71-43-2	5.00	ND	16.0	ND
TRICHLOROETHENE	79-01-6	5.00	ND	26.9	ND
1,2-DICHLOROPROPANE	78-87-5	5.00	ND	23,1	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	5.00	ND	22.7	ND
TOLUENE	108-88-3	5.00	ND	18.8	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	5.00	ND	22.7	ND
1,1,2-TRICHLOROETHANE	79-00-5	5.00	ND	27.3	ND
TETRACHLOROETHENE	127-18-4	5.00	51.9	33.9	352
1,2-DIBROMOETHANE	106-93-4	5.00	ND	38.4	ND
CHLOROBENZENE	108-90-7	5.00	ND	23.0	ND
ETHYLBENZENE	100-41-4	5.00	ND	21.7	ND
XYLENE (M+P)	1330-20-7	5.00	ND	21.7	ND
XYLENE (O)	95-47-6	5.00	ND	21.7	ND
STYRENE	100-42-5	5.00	ND	21.3	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	5.00	ND	34.3	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	5.00	ND	24.6	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	5.00	ND	24.6	ND
1,3-DICHLOROBENZENE	541-73-1	5.00	ND	30.1	ND
1,4-DICHLOROBENZENE	106-46-7	5.00	ND	30.1	ND
1,2-DICHLOROBENZENE	95-50-1	5.00	ND	30.1	ND
1,2,4-TRICHLOROBENZENE	120-82-1	10.0	ND	74.2	ND
HEXACHLOROBUTADIENE	87-68-3	5.00	ND	53.3	ND

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

MRL - METHOD REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

μg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

> APPROVED BY: DATE:

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

METHOD: VOC'S IN AIR REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

SAMPLE ID: W7-5 LAB NO: 136845 SAMPLE TYPE: AIR DATE SAMPLED: 09/17/2015 TIME SAMPLED: 12:18 BATCH ID: 091415A1 DATE ANALYZED: 09/18/2015

		PPB ((V/V)	μg/cu	ı. m
COMPOUND NAME	CAS NO.	MRL	SAMPLE CONC	MRL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	5.00	ND	24.7	ND
DICHLOROTETRAFLUOROETHANE	76-14-2	5.00	ND	35.0	ND
CHLOROMETHANE	74-87-3	5.00	ND	10.3	ND
VINYL CHLORIDE	75-01-4	5.00	ND	12.8	ND
BROMOMETHANE	74-83-9	5.00	ND	19.4	ND
CHLOROETHANE	75-00-3	5.00	ND	13.2	ND
TRICHLOROFLUOROMETHANE	75-69-4	5.00	ND	28.1	ND
1,1-DICHLOROETHENE	75-35-4	5.00	ND	19.8	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	5.00	ND	38.3	ND
METHYLENE CHLORIDE	75-09-2	5.00	ND	17.4	ND
1,1-DICHLOROETHANE	75-34-3	5,00	ND	20.2	ND
CIS-1,2-DICHLOROETHENE	156-59-2	5.00	ND	19.8	ND
CHLOROFORM	67-66-3	5.00	ND	24.4	ND
1.1.1-TRICHLOROETHANE	71-55-6	5.00	ND	27.3	ND
CARBON TETRACHLORIDE	56-23-5	5.00	ND	31.5	ND
1,2-DICHLOROETHANE	107-06-2	5.00	ND	20.2	ND ND
BENZENE	71-43-2	5.00	ND	16.0	ND ND
TRICHLOROETHENE	79-01-6	5.00	ND	26.9	ND
1.2-DICHLOROPROPANE	78-87-5	5.00	ND	23.1	ND ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	5.00	ND	22.7	ND ND
TOLUENE	108-88-3	5.00	ND	18.8	ND ND
CIS-1.3-DICHLOROPROPENE	10061-01-5	5.00	ND	22.7	ND ND
1.1,2-TRICHLOROETHANE	79-00-5	5.00	ND	27.3	ND ND
TETRACHLOROETHENE	127-18-4	5.00	9.44	33.9	64.0
1.2-DIBROMOETHANE	106-93-4	5.00	ND	38.4	ND
CHLOROBENZENE	108-90-7	5,00	ND	23.0	ND
ETHYLBENZENE	100-41-4	5.00	ND	21.7	ND
XYLENE (M+P)	1330-20-7	5.00	ND	21.7	ND
XYLENE (O)	95-47-6	5.00	ND	21.7	ND
STYRENE	100-42-5	5.00	ND	21.3	ND
1.1,2,2-TETRACHLOROETHANE	79-34-5	5.00	ND	34,3	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	5.00	ND	24.6	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	5.00	ND	24.6	ND
1,3-DICHLOROBENZENE	541-73-1	5.00	ND	30.1	ND
1,4-DICHLOROBENZENE	106-46-7	5.00	ND	30.1	ND
1,2-DICHLOROBENZENE	95-50-1	5.00	ND	30.1	ND
1,2,4-TRICHLOROBENZENE	120-82-1	10.0	ND	74.2	ND ND
HEXACHLOROBUTADIENE	87-68-3	5.00	ND	53.3	ND ND

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

MRL - METHOD REPORTING LIMIT NA - NOT APPLICABLE OR AVAILABLE

μg/cu. m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE

AND PRESSURE (NPT).

APPROVED BY: DATE:

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

BATCH ID: 091815A1

METHOD: HELIUM

REFERENCE: ASTM D 1946

UNITS: %-V

 SAMPLE ID	LAB NO.	SAMPLE TYPE	DATE SAMPLED	TIME SAMPLED	DATE ANALYZED	MRL	SAMPLE CONC
W1-5	136842	AIR	09/17/2015	12:45	09/18/2015	0.100	ND
 W2-5	136843	AIR	09/17/2015	11:51	09/18/2015	0.100	ND
W4-5	136844	AIR	09/17/2015	13:11	09/18/2015	0.100	ND
W7-5	136845	AIR	09/17/2015	12:18	09/18/2015	0.100	ND

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE MRL - METHOD REPORTING LIMIT

APPROVED BY: /////
DATE: 9/22//5

K PRIME, INC.
LABORATORY METHOD BLANK REPORT

METHOD BLANK ID:

B091415A1

SAMPLE TYPE:

AIR

BATCH ID:

091415A1

METHOD: VOC'S IN AIR

REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

DATE ANALYZED:

09/14/2015

		PPB (V/V)		μg/cu.	m
COMPOUND NAME	CAS NO.	MRL	SAMPLE CONC	MRL	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND	2.47	ND
DICHLOROTETRAFLUOROETHANE	76-14-2	0.500	ND	3.50	ND
CHLOROMETHANE	74-87-3	0.500	ND	1.03	ND
VINYL CHLORIDE	75-01-4	0.500	ND	1.28	ND
BROMOMETHANE	74-83-9	0.500	ND	1.94	ND
CHLOROETHANE	75-00-3	0.500	ND	1.32	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND	2.81	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND	1.98	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND	3.83	ND
METHYLENE CHLORIDE	75-09-2	0.500	ND	1.74	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND	1.98	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND	2.02	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND	1.98	ND
CHLOROFORM	67-66-3	0.500	ND	2.44	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND	2.73	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND	3.15	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND	2.02	ND
BENZENE	71-43-2	0.500	ND	1.60	ND
TRICHLOROETHENE	79-01-6	0.500	ND	2.69	ND
1.4-DIOXANE	123-91-1	0.500	ND	1.80	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND	2.31	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND	2.27	ND
TOLUENE	108-88-3	0.500	ND	1.88	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND	2.27	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND	2.73	ND
TETRACHLOROETHENE	127-18-4	0.500	ND	3.39	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND	3.84	ND
CHLOROBENZENE	108-90-7	0.500	ND	2.30	ND
ETHYLBENZENE	100-41-4	0.500	ND	2.17	ND
XYLENE (M+P)	1330-20-7	0.500	ND	2.17	ND
XYLENE (O)	95-47-6	0.500	ND	2.17	ND
STYRENE	100-42-5	0.500	ND	2.13	ND
1.1.2.2-TETRACHLOROETHANE	79-34-5	0.500	ND	3.43	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND	2.46	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND	2.46	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND	3.01	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND	3.01	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND	3.01	ND
1.0 A TOLOW ODODENIZENE	100 00 1	0.000	110	0.01	110

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

MRL - METHOD REPORTING LIMIT

1,2,4-TRICHLOROBENZENE

NA - NOT APPLICABLE OR AVAILABLE

 $\mu\text{g/cu.}$ m VALUES ARE CALCULATED FROM PPB RESULTS USING NORMAL TEMPERATURE AND PRESSURE (NPT).

120-82-1

0.500

ND

3.71

ND

K PRIME, INC. LABORATORY QUALITY CONTROL REPORT LAB CONTROL DUPLICATE ID: D091415A1

LAB CONTROL ID: L091415A1

SAMPLE TYPE: AIR

BATCH ID: 091415A1 METHOD: VOC'S IN AIR **DATE ANALYZED:** 09/14/2015

REFERENCE: EPA METHOD TO 15 (GC-MS-SCAN)

COMPOUND NAME	SPIKE ADDED (PPB)	REPORTING LIMIT (PPB)	SAMPLE CONC (PPB)	SPIKE CONC (PPB)	SPIKE REC (%)	REC LIMITS (%)
1,1-DICHLOROETHENE	10.0	0.500	ND	7.46	75	60 - 140
TRICHLOROETHENE	10.0	0.500	ND	10.8	108	60 - 140
BENZENE	10.0	0.500	ND	7.01	70	60 - 140
TOLUENE	10.0	0.500	ND	8.98	90	60 - 140
TETRACHLOROETHENE	10.0	0.500	ND	12.4	124	60 - 140

	SPIKE	SPIKE DUP	SPIKE DUP		QC	LIMITS
COMPOUND NAME	ADDED	CONC	REC	RPD	RPD	REC
	(PPB)	(PPB)	(%)	(%)	(%)	(%)
1,1-DICHLOROETHENE	10.0	7.42	74	0.5	25	60 - 140
TRICHLOROETHENE	10.0	10.5	105	2.5	25	60 - 140
BENZENE	10.0	7.05	71	0.6	25	60 - 140
TOLUENE	10.0	8.83	88	1.7	25	60 - 140
TETRACHLOROETHENE	10.0	12.0	120	3.0	25	60 - 140

NOTES:

NA - NOT APPLICABLE OR AVAILABLE ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT K PRIME, INC.

LABORATORY QC REPORT

METHOD: HELIUM

REFERENCE: ASTM D 1946

METHOD BLANK ID: B091815A1

SAMPLE ID: L091815A1 **DUPLICATE ID:** D091815A1

BATCH #: 091815A1

SAMPLE TYPE:

AIR

UNITS:

%-V

DATE ANALYZED: 09/18/2015

METHOD BLANK

PARAMETER	REPORTING	SAMPLE
	LIMIT	RESULT
HELIUM	0.050	ND

ACCURACY (MATRIX SPIKE)

PARAMETER	SPIKE	SAMPLE	SPIKE	RECOVERY	LIMITS
	ADDED	RESULT	RESULT	(%)	(%)
HELIUM	10.0	ND	9.75	98	70-130

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING	SPIKE	DUPLICATE	RPD	LIMITS
	LIMIT	RESULT	RESULT	(%)	(%)
HELIUM	0.050	9.75	9.10	6.9	±20

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT AVAILABLE OR APPLICABLE



711 Grand Avenue, Suite 220 San Rafael, California 94901 415.460.6770 • Fax 415.460.6771 main@westenvironmental.com

SAMPLE ANALYSIS/COMPOSITE REQUEST FORM

CHAIN-OF-CUSTODY

Invoice to: WEST, Inc.					Date: 9/16/15 Page 1 of 1										
Project: Holliday.West Oakland						Loc	Location: 5th & Magnolia Streets, West Oakland					and			
Project Manage	er: Peter Morri	s, WEST, I	nc.				Pho	ne:	415/4	60-6	770			Fax: 415/460-	6771
Laboratory: KPrime, Inc, Santa Rosa, CA					-1		ound	1	2	3	5	7 10 Std.			
Sampler Signat	ure:		M 1				tin	ne (d	ays)					X	
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		Date	Time	Туре	Containers	Composite	VOCs (TO-15)	Heluim							ПОГР
Sample ID	Summa ID	1 .	26		#	Ŭ		1						KPI#	<u> </u>
W1-5	5-231	9/17/15		A	<u> </u>		X	X						136842	
W2-5	5 -250	9/17/15	143 1151	A		_	X	X						136843	
W4-5	5-231 5-250 5-354	9/7/15	1304 311	A	Ì	-	X	X						136844	
W7-5	5-255	9/17/15	1210 1218	A	1		义	X						136845	,
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NOTES:									LL 1	l			I	<u> </u>	
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								Glob	al ID	:					
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the towning			9/18/2015/09:50									1101013			

CONSULTING ANALYTICAL CHEMISTS

3621 Westwind Blvd. Santa Rosa CA 95403 Phone: 707 527 7574 FAX: 707 527 7879

9946

HOLLIDAY.WEST OAKLAND

ACCT:

PROJ:

TRANSMITTAL

DATE: 9/25/2015

TO: MR. PETER MORRIS

> WEST ENVIRONMENTAL S&T 711 GRAND AVENUE, SUITE 220

SAN RAFAEL, CA 94901

Phone: 415-460-6770 Fax: 415-460-6771

J09/125/2015 Email: main@westenvironmental.com

Richard A. Kagel, Ph.D. FROM:

Laboratory Director

SUBJECT: LABORATORY RESULTS FOR YOUR PROJECT HOLLIDAY.WEST OAKLAND

Enclosed please find K Prime's laboratory reports for the following samples:

SAMPLE ID	TYPE	DATE	TIME	KPI LAB #
W1-16	WATER	9/17/2015	11:40	136814
W2-18	WATER	9/17/2015	14:00	136815
W4-16	WATER	9/17/2015	11:10	136816
TRIP BLANK	WATER	9/17/2015	NA	136817

The above listed sample group was received on 9/18/2015 and tested as requested on the chain of custody document.

Please call me if you have any questions or need further information.

Thank you for this opportunity to be of service.

K PRIME PROJECT: 9946

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

REFERENCE: EPA 8015B

METHOD: GRO-GASOLINE RANGE ORGANICS

SAMPLE TYPE: WATER

UNITS: mg/L

	SAMPLE ID	LAB NO.	DATE	TIME	BATCH	DATE	MRL	SAMPLE	GRO
			SAMPLED	SAMPLED	ID	ANALYZED		CONC	PATTERN
Г	W1-16	136814	09/17/2015	11:40	091815W1	09/18/2015	0.050	ND	
	W2-18	136815	09/17/2015	14:00	091815W1	09/18/2015	0.050	ND	
Г	W4-16	136816	09/17/2015	11:10	091815W1	09/18/2015	0.050	ND	

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED METHOD REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE

MRL - METHOD REPORTING LIMIT

AE - UNKNOWN HYDROCARBON WITH A SINGLE PEAK

AN - UNKNOWN HYDROCARBON WITH SEVERAL PEAKS

AS - HEAVIER HYDROCARBON THAN GASOLINE CONTRIBUTING TO GRO VALUE

CO - HYDROCARBON RESPONSE IN GASOLINE RANGE BUT DOES NOT RESEMBLE GASOLINE

APPROVED BY: (M)
DATE: 09/24/2015

SAMPLE ID: W1-16 LAB NO: 136814 DATE SAMPLED: 09/17/2015 TIME SAMPLED: 11:40 BATCH #: 091715W1

K PRIME PROJECT: 9946 BATCH #: 091715W1 **CLIENT PROJECT: HOLLIDAY.WEST OAKLAND DATE ANALYZED:** 09/18/2015

METHOD: VOLATILE ORGANIC COMPOUNDSSAMPLE TYPE: WATERREFERENCE: EPA 5030/8260UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND
2,2-DICHLOROPROPANE	594-20-7	0.500	ND ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND ND
CHLOROFORM	67-66-3	0.500	ND ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND ND
1,1-DICHLOROPROPENE	563-58-6	0.500	ND ND
BENZENE	71-43-2	0.500	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND ND
DIBROMOMETHANE	74-95-3	0.500	ND ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND ND
TOLUENE	108-88-3 10061-01-5	0.500 0.500	ND ND
CIS-1,3-DICHLOROPROPENE 1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND ND
TETRACHLOROETHENE	127-18-4	0.500	ND ND
1.3-DICHLOROPROPANE	142-28-9	0.500	ND ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1.2-DIBROMOETHANE	106-93-4	0.500	ND ND
CHLOROBENZENE	108-90-7	0.500	ND
1.1.1.2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND
2-CHLOROTOLUENE	95-49-8	0.500	ND

SAMPLE ID: W1-16 LAB NO: 136814 DATE SAMPLED: 09/17/2015 TIME SAMPLED: 11:40 BATCH #: 091715W1

K PRIME PROJECT: 9946 BATCH #: 091715W1 CLIENT PROJECT: HOLLIDAY.WEST OAKLAND DATE ANALYZED: 09/18/2015

METHOD: VOLATILE ORGANIC COMPOUNDSSAMPLE TYPE: WATERREFERENCE: EPA 5030/8260UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND
4-CHLOROTOLUENE	106-43-4	0.500	ND
TERT-BUTYLBENZENE	98-06-6	0.500	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND
SEC-BUTYLBENZENE	135-98-8	0.500	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND
4-ISOPROPYLTOLUENE	99-87-6	0.500	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND
N-BUTYLBENZENE	104-51-8	0.500	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.500	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND
NAPHTHALENE	91-20-3	1.00	ND
1,2,3-TRICHLOROBENZENE	87-61-6	1.00	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	95
TOLUENE-D8	97
4-BROMOFLUOROBENZENE	92

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA -NOT APPLICABLE OR AVAILABLE

APPROVED BY:

DATE: 09/24/2015

SAMPLE ID: W2-18 LAB NO: 136815 DATE SAMPLED: 09/17/2015 TIME SAMPLED: 14:00 BATCH #: 091715W1

K PRIME PROJECT: 9946 BATCH #: 091715W1 CLIENT PROJECT: HOLLIDAY.WEST OAKLAND DATE ANALYZED: 09/18/2015

METHOD: VOLATILE ORGANIC COMPOUNDS SAMPLE TYPE: WATER REFERENCE: EPA 5030/8260 UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND
1,1-DICHLOROPROPENE	563-58-6	0.500	ND
BENZENE	71-43-2	0.500	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND
1,2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENE	108-88-3	0.500	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	0.850
1,3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1,2-DIBROMOETHANE	106-93-4	0.500	ND
CHLOROBENZENE	108-90-7	0.500	ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND
2-CHLOROTOLUENE	95-49-8	0.500	ND
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND

SAMPLE ID: W2-18 **LAB NO:** 136815 **DATE SAMPLED:** 09/17/2015 TIME SAMPLED: 14:00 **BATCH #:** 091715W1

DATE ANALYZED: 09/18/2015

K PRIME PROJECT: 9946 CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

SAMPLE TYPE: WATER METHOD: VOLATILE ORGANIC COMPOUNDS UNITS: ug/L **REFERENCE: EPA 5030/8260**

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
4-CHLOROTOLUENE	106-43-4	0.500	ND
TERT-BUTYLBENZENE	98-06-6	0.500	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND
SEC-BUTYLBENZENE	135-98-8	0.500	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND
4-ISOPROPYLTOLUENE	99-87-6	0.500	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND
N-BUTYLBENZENE	104-51-8	0.500	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.500	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND
NAPHTHALENE	91-20-3	1.00	ND
1,2,3-TRICHLOROBENZENE	87-61-6	1.00	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	99
TOLUENE-D8	97
4-BROMOFLUOROBENZENE	92

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA -NOT APPLICABLE OR AVAILABLE

APPROVED BY: <u>Ch</u>
DATE: <u>09/24/2015</u>

SAMPLE ID: W4-16 LAB NO: 136816 DATE SAMPLED: 09/17/2015 TIME SAMPLED: 11:10 BATCH #: 091715W1

K PRIME PROJECT: 9946 BATCH #: 091715W1 CLIENT PROJECT: HOLLIDAY.WEST OAKLAND DATE ANALYZED: 09/18/2015

METHOD: VOLATILE ORGANIC COMPOUNDSSAMPLE TYPE: WATERREFERENCE: EPA 5030/8260UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
DICHLORODIFLUOROMETHANE	75-71-8	0.500	ND
CHLOROMETHANE	74-87-3	0.500	ND
VINYL CHLORIDE	75-01-4	0.500	ND
BROMOMETHANE	74-83-9	0.500	ND
CHLOROETHANE	75-00-3	0.500	ND
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND
1,1-DICHLOROETHENE	75-35-4	0.500	ND
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND
METHYLENE CHLORIDE	75-09-2	2.50	ND
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND
1,1-DICHLOROETHANE	75-34-3	0.500	ND
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND
2,2-DICHLOROPROPANE	594-20-7	0.500	ND
BROMOCHLOROMETHANE	74-97-5	0.500	ND
CHLOROFORM	67-66-3	0.500	ND
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND
CARBON TETRACHLORIDE	56-23-5	0.500	ND
1,1-DICHLOROPROPENE	563-58-6	0.500	ND
BENZENE	71-43-2	0.500	ND
1,2-DICHLOROETHANE	107-06-2	0.500	ND
TRICHLOROETHENE	79-01-6	0.500	ND
1.2-DICHLOROPROPANE	78-87-5	0.500	ND
DIBROMOMETHANE	74-95-3	0.500	ND
BROMODICHLOROMETHANE	75-27-4	0.500	ND
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND
TOLUENE	108-88-3	0.500	ND
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND ND
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND
TETRACHLOROETHENE	127-18-4	0.500	ND
1,3-DICHLOROPROPANE	142-28-9	0.500	ND
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND
1.2-DIBROMOETHANE	106-93-4	0.500	ND
CHLOROBENZENE	108-90-7	0.500	ND
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND ND
ETHYLBENZENE	100-41-4	0.500	ND
XYLENE (M+P)	1330-20-7	0.500	ND
XYLENE (O)	1330-20-7	0.500	ND
STYRENE	100-42-5	0.500	ND
BROMOFORM	75-25-2	0.500	ND ND
ISOPROPYLBENZENE	98-82-8	0.500	ND
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND
BROMOBENZENE	108-86-1	0.500	ND
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND
N-PROPYLBENZENE	103-65-1	0.500	ND
2-CHLOROTOLUENE	95-49-8	0.500	ND
Z-OFILORO FOLULINE	33-43-0	0.500	IND

SAMPLE ID: W4-16 **LAB NO:** 136816 **DATE SAMPLED:** 09/17/2015 TIME SAMPLED: 11:10 **BATCH #:** 091715W1

K PRIME PROJECT: 9946 CLIENT PROJECT: HOLLIDAY.WEST OAKLAND **DATE ANALYZED:** 09/18/2015

METHOD: VOLATILE ORGANIC COMPOUNDS **SAMPLE TYPE: WATER REFERENCE: EPA 5030/8260** UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND
4-CHLOROTOLUENE	106-43-4	0.500	ND
TERT-BUTYLBENZENE	98-06-6	0.500	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND
SEC-BUTYLBENZENE	135-98-8	0.500	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND
4-ISOPROPYLTOLUENE	99-87-6	0.500	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND
N-BUTYLBENZENE	104-51-8	0.500	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.500	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND
NAPHTHALENE	91-20-3	1.00	ND
1,2,3-TRICHLOROBENZENE	87-61-6	1.00	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	97
TOLUENE-D8	97
4-BROMOFLUOROBENZENE	91

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA -NOT APPLICABLE OR AVAILABLE

APPROVED BY: <u>W</u> DATE: <u>09/24/2015</u>

K PRIME PROJECT: 9946

ΑN

CLIENT PROJECT: HOLLIDAY.WEST OAKLAND

METHOD: DRO SAMPLE TYPE: WATER REFERENCE: EPA 8015B UNITS: mg/L

	SAMPLE ID	LAB NO.	DATE	BATCH	EXTRACT	DATE	MRL	SAMPLE	DRO
			SAMPLED	ID	DATE	ANALYZED		CONC	PATTERN
L	W1-16	136814	09/17/2015	092315W1	09/23/2015	09/23/2015	0.074	ND	
	W2-18	136815	09/17/2015	092315W1	09/23/2015	09/23/2015	0.070	ND	
	W4-16	136816	09/17/2015	092315W1	09/23/2015	09/23/2015	0.064	ND	

NOTES:	
DRO	Diesel Range Organics (C12-C34) with Silica Gel Cleanup
ND	Not Detected at or above the stated MRL
NA	Not Applicable or Available
MRL	Method Reporting Limit
AD	Typical pattern for diesel
AM	Hydrocarbon response is in the C12-C22 range
AC	Heavier hydrocarbons contributing to diesel range quantitation
AJ	Heavier hydrocarbon than diesel
AK	Lighter hydrocarbon than diesel
ΑE	Unknown hydrocarbon with a single peak

Unknown hydrocarbon with several peaks

APPROVED BY: <u>M</u> DATE: <u>09/24/2015</u> K PRIME, INC.

LABORATORY QUALITY CONTROL REPORT

METHOD BLANK ID: B091815W1

SAMPLE TYPE:

WATER

BATCH #:

UNITS:

091815W1

METHOD: GRO-GASOLINE RANGE ORGANICS

REFERENCE: EPA 8015B

DATE EXTRACTED: 09/18/2015 **DATE ANALYZED:** 09/18/2015

mg/L

COMPOUND NAME

TPH-G

REPORTING

SAMPLE

LIMIT 0.050

CONC ND

SAMPLE ID: L091815W1

DUPLICATE ID: D091815W1

BATCH #:

091815W1

SAMPLE TYPE:

WATER

UNITS:

mg/L

DATE EXTRACTED: 09/18/2015

DATE ANALYZED: 09/18/2015

ACCURACY (MATRIX SPIKE)

PARAMETER	SPIKE	SAMPLE	SPIKE	RECOVERY	LIMITS
	ADDED	RESULT	RESULT	(%)	(%)
TPH-G	0.500	ND	0.585	117	60-140

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING	SPIKE	DUPLICATE	RPD	LIMITS
	LIMIT	RESULT	RESULT	(%)	(%)
TPH-G	0.050	0.585	0.599	2.4	±20

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT APPLICABLE

K PRIME, INC. LABORATORY METHOD BLANK REPORT METHOD BLANK ID: B091715W1

BATCH #: 091715W1 **DATE ANALYZED:** 09/17/2015

METHOD: VOLATILE ORGANIC COMPOUNDS **SAMPLE TYPE:** WATER

REFERENCE: EPA 5030/8260 UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC	
DICHLORODIFLUOROMETHANE	75-71-8	0.500	- ND	
CHLOROMETHANE	74-87-3	0.500	ND	
VINYL CHLORIDE	75-01-4	0.500	ND	
BROMOMETHANE	74-83-9	0.500	ND	
CHLOROETHANE	75-00-3	0.500	ND	
TRICHLOROFLUOROMETHANE	75-69-4	0.500	ND	
1,1-DICHLOROETHENE	75-35-4	0.500	ND	
TRICHLOROTRIFLUOROETHANE	76-13-1	0.500	ND	
METHYLENE CHLORIDE	75-09-2	2.50	ND	
TRANS-1,2-DICHLOROETHENE	156-60-5	0.500	ND	
1,1-DICHLOROETHANE	75-34-3	0.500	ND	
CIS-1,2-DICHLOROETHENE	156-59-2	0.500	ND	
2,2-DICHLOROPROPANE	594-20-7	0.500	ND	
BROMOCHLOROMETHANE	74-97-5	0.500	ND	
CHLOROFORM	67-66-3	0.500	ND	
1,1,1-TRICHLOROETHANE	71-55-6	0.500	ND	
CARBON TETRACHLORIDE	56-23-5	0.500	ND	
1,1-DICHLOROPROPENE	563-58-6	0.500	ND	
BENZENE	71-43-2	0.500	ND	
1,2-DICHLOROETHANE	107-06-2	0.500	ND	
TRICHLOROETHENE	79-01-6	0.500	ND	
1,2-DICHLOROPROPANE	78-87-5	0.500	ND	
DIBROMOMETHANE	74-95-3	0.500	ND	
BROMODICHLOROMETHANE	75-27-4	0.500	ND	
TRANS-1,3-DICHLOROPROPENE	10061-02-6	0.500	ND	
TOLUENE	108-88-3	0.500	ND	
CIS-1,3-DICHLOROPROPENE	10061-01-5	0.500	ND	
1,1,2-TRICHLOROETHANE	79-00-5	0.500	ND	
TETRACHLOROETHENE	127-18-4	0.500	ND	
1,3-DICHLOROPROPANE	142-28-9	0.500	ND	
DIBROMOCHLOROMETHANE	124-48-1	0.500	ND	
1,2-DIBROMOETHANE	106-93-4	0.500	ND	
CHLOROBENZENE	108-90-7	0.500	ND	
1,1,1,2-TETRACHLOROETHANE	630-20-6	0.500	ND	
ETHYLBENZENE	100-41-4	0.500	ND	
XYLENE (M+P)	1330-20-7	0.500	ND	
XYLENE (O)	1330-20-7	0.500	ND	
STYRENE	100-42-5	0.500	ND	
BROMOFORM	75-25-2	0.500	ND	
ISOPROPYLBENZENE	98-82-8	0.500	ND	
1,1,2,2-TETRACHLOROETHANE	79-34-5	0.500	ND	
BROMOBENZENE	108-86-1	0.500	ND	
1,2,3-TRICHLOROPROPANE	96-18-4	0.500	ND	
N-PROPYLBENZENE	103-65-1	0.500	ND	
2-CHLOROTOLUENE	95-49-8	0.500	ND	

K PRIME, INC. LABORATORY METHOD BLANK REPORT

METHOD BLANK ID: B091715W1

BATCH #: 091715W1 **DATE ANALYZED:** 09/17/2015

METHOD: VOLATILE ORGANIC COMPOUNDSSAMPLE TYPE: WATERREFERENCE: EPA 5030/8260UNITS: ug/L

COMPOUND NAME	CAS NO.	REPORTING LIMIT	SAMPLE CONC
1,3,5-TRIMETHYLBENZENE	108-67-8	0.500	ND
4-CHLOROTOLUENE	106-43-4	0.500	ND
TERT-BUTYLBENZENE	98-06-6	0.500	ND
1,2,4-TRIMETHYLBENZENE	95-63-6	0.500	ND
SEC-BUTYLBENZENE	135-98-8	0.500	ND
1,3-DICHLOROBENZENE	541-73-1	0.500	ND
4-ISOPROPYLTOLUENE	99-87-6	0.500	ND
1,4-DICHLOROBENZENE	106-46-7	0.500	ND
N-BUTYLBENZENE	104-51-8	0.500	ND
1,2-DICHLOROBENZENE	95-50-1	0.500	ND
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	0.500	ND
1,2,4-TRICHLOROBENZENE	120-82-1	1.00	ND
HEXACHLOROBUTADIENE	87-68-3	1.00	ND
NAPHTHALENE	91-20-3	1.00	ND
1,2,3-TRICHLOROBENZENE	87-61-6	1.00	ND

SURROGATE RECOVERY	%
DIBROMOFLUOROMETHANE	95
TOLUENE-D8	96
4-BROMOFLUOROBENZENE	93

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT NA -NOT APPLICABLE OR AVAILABLE

METHOD: VOLATILE ORGANIC COMPOUNDS

REFERENCE: EPA 5030/8260

SAMPLE ID: B091715W1 SPIKE ID: L091715W1 DUPLICATE ID: D091715W1 BATCH #: 091715W1

SAMPLE TYPE: WATER

UNITS: µg/L

ACCURACY (MATRIX SPIKE)

PARAMETER	SPIKE	SAMPLE	SPIKE	RECOVERY	LIMITS
	ADDED	RESULT	RESULT	(%)	(%)
1,1 DICHLOROETHENE	10.0	ND	11.0	110	60-140
BENZENE	10.0	ND	11.9	119	60-140
TRICHLOROETHENE	10.0	ND	11.7	117	60-140
TOLUENE	10.0	ND	11.9	119	60-140
CHLOROBENZENE	10.0	ND	12.1	121	60-140

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING	SPIKE	DUPLICATE	RPD	LIMITS
	LIMIT	RESULT	RESULT	(%)	(%)
1,1 DICHLOROETHENE	0.500	11.0	11.4	3.1	±20
BENZENE	0.500	11.9	12.1	1.8	±20
TRICHLOROETHENE	0.500	11.7	11.9	2.5	±20
TOLUENE	0.500	11.9	12.2	2.3	±20
CHLOROBENZENE	0.500	12.1	12.2	1.1	±20

NOTES:

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT AVAILABLE OR APPLICABLE

K PRIME, INC.

LABORATORY QUALITY CONTROL REPORT

BATCH ID: 092315W1

DATE EXTRACTED:

09/23/2015

DATE ANALYZED:

09/23/2015

METHOD: DRO

REFERENCE: EPA 8015B

SAMPLE TYPE:

WATER

UNITS:

mg/L

METHOD BLANK ID: B092315W1

COMPOUND NAME

DRO

REPORTING

SAMPLE

LIMIT 0.050 CONC ND

SAMPLE ID: L092315W1

DUPLICATE ID: D092315W1

ACCURACY (MATRIX SPIKE)

PARAMETER	SPIKE	SAMPLE	SPIKE	RECOVERY	LIMITS
	ADDED	RESULT	RESULT	(%)	(%)
DRO	2.50	ND	2.21	88	60-140

PRECISION (SPIKE DUPLICATE)

COMPOUND NAME	REPORTING	SPIKE	DUPLICATE	RPD	LIMITS
	LIMIT	RESULT	RESULT	(%)	(%)
DRO	0.050	2.21	2.28	3.1	±20

NOTES:

DRO - DIESEL RANGE ORGANICS (C12-C34)

ND - NOT DETECTED AT OR ABOVE THE STATED REPORTING LIMIT

NA - NOT APPLICABLE OR AVAILABLE



711 Grand Avenue, Suite 220 San Rafael, California 94901 415.460.6770 • Fax 415.460.6771 main@westenvironmental.com

SAMPLE ANALYSIS/COMPOSITE REQUEST FORM

CHAIN-OF-CUSTODY

Invoice to: WEST, Inc.		Date: 9/18/15 Page	of			
Project: Holliday.West Oakland		Location: 5th & Magnolia Streets, West Oakland				
Project Manager: Peter Morris, WEST, I	nc.	Phone: 415/460-6770	Fax: 415/460-6771			
Laboratory: KPrime, Inc, Santa Rosa, CA Sampler Signature:		Turnaround time 1 2 (days)	3 5 7 10 Std.			
		Analyses	s Requested			
Sample ID KPI #	Date Time Type # Containers Composite	Pesticides (8081A) PAHs (8270C) Arsenic, Lead (6020) Title 22 Metals (6000/7000) VOCs (8260B) TPHg/TPHd (8015M)*	ногр			
WI-16 136814 91	115 1140 W 4 -	XX				
W2-19 136815 9	1/15 1400 W 4 -	XX				
W4-16 136816 91	7/15/110 W 4 -	XX				
	7/15 - W 2 -		X			
NOTES: *silica gel cleanup for TPHd						
dispose of Trip Blank	after 30 Days	EDF Log Co	ode: WESS			
Relinquished by: (Signature)	Date/Time 9/18/15 08:56	Received by: (Signature)	Date/Time 9//8//508/51			
Relinquished by: (Signature) Ben Browny	Date/Time 09:50 9/18/15	Received by: (Signature)	Date/Time 09:50			



APPENDIX C CALCULATIONS

TABLE C-1

95-PERCENT UCL-PAHs

5th Street and Magnolia Street West Oakland, California

Dibenzo(a,h)anthracene

General Statistics		
Total Number of Observations	8 Number of Distinct Observations	8
	Number of Missing Observations	0
Minimum	26 Mean	108.9
Maximum	430 Median	71.85
SD	131.8 Std. Error of Mean	46.59
Coefficient of Variation	1.21 Skewness	2.657
Gamma Statistics		
k hat (MLE)	1.462 k star (bias corrected MLE)	0.997
Theta hat (MLE)	74.48 Theta star (bias corrected MLE)	109.2
nu hat (MLE)	23.39 nu star (bias corrected)	15.95
MLE Mean (bias corrected)	108.9 MLE Sd (bias corrected)	109
	Approximate Chi Square Value (0.05)	7.927
Adjusted Level of Significance	0.0195 Adjusted Chi Square Value	6.549
Assuming Gamma Distribution		
95% Approximate Gamma UCL (use when n>=50	219 95% Adjusted Gamma UCL (use when n<50)	265.1
rr	,	
Lognormal GOF Test		
Shapiro Wilk Test Statistic	0.879 Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.818 Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.245 Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.313 Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level		
T 10 d d		
Lognormal Statistics	2 250 Manu of lanced Date	4 21 1
Minimum of Logged Data	3.258 Mean of logged Data	4.311
Maximum of Logged Data	6.064 SD of logged Data	0.83
Assuming Lognormal Distribution		
95% H-UCL	271.1 90% Chebyshev (MVUE) UCL	189.2
95% Chebyshev (MVUE) UCL	229.8 97.5% Chebyshev (MVUE) UCL	286
99% Chebyshev (MVUE) UCL	396.6	
N TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL THE TOTAL TO THE TOTAL TH		
Nonparametric Distribution Free UCL Statistics	/ C' 'C' I I	
Data appear to follow a Discernible Distribution at 59	6 Significance Level	
Nonparametric Distribution Free UCLs		
95% CLT UCL	185.5 95% Jackknife UCL	197.1
95% Standard Bootstrap UCL	178.2 95% Bootstrap-t UCL	478.3
95% Hall's Bootstrap UCL	588.3 95% Percentile Bootstrap UCL	195.3
95% BCA Bootstrap UCL	212	
90% Chebyshev(Mean, Sd) UCL	248.6 95% Chebyshev(Mean, Sd) UCL	311.9
97.5% Chebyshev(Mean, Sd) UCL	399.8 99% Chebyshev(Mean, Sd) UCL	572.4
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TABLE C-2 95-PERCERNT UCL-LEAD 5th Street and Magnolia Street West Oakland, California

Lead

General Statistics			
Number of Valid Observations	8	Number of Distinct Observations	8
Raw Statistics		Log-transformed Statistics	
Minimum	18.9	Minimum of Log Data	2.939
Maximum		Maximum of Log Data	6.234
Mean		Mean of log Data	3.556
Median	25.1	SD of log Data	1.103
SD	171.8		
Coefficient of Variation	2.017		
Skewness	2.822		
Relevant UCL Statistics			
Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic		Shapiro Wilk Test Statistic	0.587
Shapiro Wilk Critical Value	0.818	Shapiro Wilk Critical Value	0.818
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	200.2	95% H-UCL	298.7
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	158.5
95% Adjusted-CLT UCL (Chen-1995)	249.8	97.5% Chebyshev (MVUE) UCL	202
95% Modified-t UCL (Johnson-1978)	210.3	99% Chebyshev (MVUE) UCL	287.5
Gamma Distribution Test		Data Distribution	
k star (bias corrected)	0.51	Data do not follow a Discernable Distribution (0.05)	
Theta Star	167		
MLE of Mean	85.14		
MLE of Standard Deviation	119.2		
nu star	8.158		
Approximate Chi Square Value (.05)	2.827	Nonparametric Statistics	
Adjusted Level of Significance	0.0195	95% CLT UCL	185
Adjusted Chi Square Value	2.096	95% Jackknife UCL	200.2
		95% Standard Bootstrap UCL	177.8
Anderson-Darling Test Statistic	1.98	95% Percentile Bootstrap UCL	205.8
Anderson-Darling 5% Critical Value	0.75	95% BCA Bootstrap UCL	267.1
Kolmogorov-Smirnov Test Statistic	0.45	95% Chebyshev(Mean, Sd) UCL	349.8
Kolmogorov-Smirnov 5% Critical Value	0.305	97.5% Chebyshev(Mean, Sd) UCL	464.4
Data not Gamma Distributed at 5% Significance	e Level	99% Chebyshev(Mean, Sd) UCL	689.4