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Ms. Dilan Roe Site Cleanup Program Manager Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94501-6577

#### Subject: Post-Demolition Investigation and Soil Removal Completion Report Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California Site Cleanup Program Case No. RO0003014

Dear Ms. Roe:

Enclosed please find a report entitled *Post-Demolition Investigation and Soil Removal Completion Report* for the Crown Chevrolet Cadillac Isuzu site at 7544 Dublin Boulevard, in Dublin, California (Site Cleanup Program Case No. RO0003014, GeoTracker Global ID T10000001616). This report was prepared by Amec Foster Wheeler Environment & Infrastructure, Inc., on behalf of Crown Chevrolet Cadillac Isuzu.

I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Please contact me at (408) 680-4938 or Avery Whitmarsh of Amec Foster Wheeler at (510) 663-4154 if you have any questions regarding this report.

Sincerely yours,

Pete Beritzhoff BWD Dublin LLC

Attachment: Post-Demolition Investigation and Soil Removal Completion Report



# Post-Demolition Investigation and Soil Removal Completion Report

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

Prepared for:

**Crown Chevrolet Cadillac Isuzu** Dublin, California

Prepared by:

Amec Foster Wheeler Environment & Infrastructure, Inc. 180 Grand Avenue, Suite 1100 Oakland, California 94612

June 2015

Project No. OD10160070.00011.E

#### **POST-DEMOLITION INVESTIGATION AND SOIL REMOVAL COMPLETION REPORT**

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California Site Cleanup Program Case No. RO0003014

#### June 26, 2015 Project OD1610070

This report was prepared by the staff of Amec Foster Wheeler under the supervision of the Engineer and/or Geologist whose signature appears hereon.

The findings, recommendations, specifications, or professional opinions are presented within the limits described by the client, in accordance with generally accepted professional engineering and geologic practice. No warranty is expressed or implied.

AVERY WHITMARSH 0 ATE OF CALLEOR

Avery Whitmarsh, PG #8541 Associate Geologist Amec Foster Wheeler Environment & Infrastructure, Inc.



No. 8541

Doug Bablitch, PE #C64096 **Principal Engineer** Amec Foster Wheeler Environment & Infrastructure, Inc.

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# POST-DEMOLITION INVESTIGATION AND SOIL REMOVAL COMPLETION REPORT Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

Amec Foster Wheeler Environment & Infrastructure, Inc. ("Amec Foster Wheeler"), has prepared this *Post-Demolition Investigation and Soil Removal Completion Report* ("Report") on behalf of the Betty J. Woolverton Trust and Crown Chevrolet Cadillac Isuzu (collectively, Crown) for the property located at 7544 Dublin Boulevard in Dublin, California (the "site;" Figure 1). The work was performed in accordance with the *Revised Additional Investigation and Soil Removal Work Plan*, dated August 27, 2014 (AMEC, 2014b) and the *Addendum to Investigation and Soil Removal Work Plan*, dated February 5, 2015 (AMEC, 2015), collectively referred to as the "Work Plan," The *Revised Additional Investigation and Soil Removal Work Plan* was approved by Alameda County Environmental Health (ACEH) in an e-mail from Dilan Roe of ACEH to Terri Costello of the Betty J. Woolverton Trust, dated August 7, 2014.

This Report documents well, piezometer, and vapor probe destruction; the results of field observation/investigation activities; soil removal performed prior to, during, and following the demolition of four buildings (Buildings A through D) and hardscape at the site; and management of wastes associated with these activities. The demolition activities were performed by BWD Dublin LLC prior to their planned site redevelopment.

Amec Foster Wheeler's work included the following activities:

- Destruction of seven groundwater monitoring wells, three piezometers, and four soil vapor probes;
- Confirmation soil sampling beneath two building foundation slabs (Buildings C and D) and subsurface piping that were removed as part of building demolition;
- Excavation of impacted soil near a former Front End Alignment Pit (former F.E. Pit) and a former sump, both located within Building B; and
- Excavation of identified impacted soil below a former sump in Building C, below piping associated with a former underground storage tank (UST) near Building B, and below six former hydraulic lifts in Building B.

The items described above are components of the corrective action outlined in the *Final Feasibility Study and Corrective Action Work Plan* ("FS/CAP") dated May 1, 2014 (AMEC, 2014a). This report serves as the final documentation for the completion of the soil removal corrective action. The other aspects of the corrective action outlined in the FS/CAP are

addressed in the Vapor Mitigation and Permeable Reactive Barrier Basis of Design Report ("Design Report") dated June 11, 2015 (Amec Foster Wheeler, 2015c).

#### 1.0 BACKGROUND

The site was developed in 1968 as Crown Chevrolet, a car dealership with auto body and repair shops, on land that appears to have been previously used for agricultural purposes. The three main site buildings (Buildings A, B, and C) were constructed (Figure 2) at the time of initial development, and Building A was later expanded. Building D was reportedly constructed in 1994. Buildings B and C were used for vehicle maintenance and auto body activities, while Buildings A and D were only used as offices and showrooms. Operations as a car dealership and auto body shop continued from 1968 through mid-2013. The property was sold to BWD Dublin LLC in the fall of 2014, and the site buildings were demolished in December 2014 (as discussed in this Report) in preparation for redevelopment. The site is planned to be redeveloped as multi-level mixed residential and commercial space beginning in 2015.

Multiple investigations have been conducted at the site from 2009 to 2014 and are summarized in the FS/CAP (AMEC, 2014a). These investigations were performed to address regulatory concerns as well as in support of transactional and potential redevelopment activities and included collection of soil, groundwater, and soil vapor samples throughout the site. Based on the previous investigations, two main areas of soil, groundwater, and/or soil vapor impacts were identified:

- Volatile organic compounds (VOCs), primarily tetrachloroethene (PCE) and trichloroethene (TCE), are present in shallow groundwater throughout the northern portion of the site. The PCE and TCE are attributed to an off-site source; the specific source has not been identified. Soil vapor impacts (PCE, TCE, and some breakdown products) have been identified in the vicinity of the groundwater plume, extending approximately 200 to 240 feet south from the northern property boundary.
- Past releases at the site impacted soil with chlorobenzene and related compounds at a former front-end alignment pit ("former F.E. Pit") and former sump within former Building B. Limited groundwater and soil vapor impacts have also been identified at the former sump. Impacted soil was removed at the former F.E. Pit and former sump in 2011; however, a limited area of impacted soil remained in place beneath the walls of Building B, as summarized in the *Remediation Report* dated December 21, 2011 (AMEC, 2011c). Removal of the remaining impacted soil is discussed in this Report.

In order to monitor groundwater conditions at the site, seven monitoring wells (with a total of 15 well ports at varying depths) were installed in the northern portion of the site in September 2012 (Figure 2). An initial round of sampling was conducted at that time, and beginning in January 2013, the site wells were sampled once each quarter, and the results documented in monitoring reports prepared by Amec Foster Wheeler on a quarterly or semiannual basis.

Three additional piezometers were installed in August 2014 as part of an investigation to support the design of the permeable reactive barrier (Figure 2). The quarterly monitoring has indicated that concentrations of VOCs in groundwater are generally stable or declining (Amec Foster Wheeler, 2015b). The monitoring wells and piezometers were destroyed prior to site demolition activities; the well and piezometer destruction is described in this Report.

The FS/CAP describes the corrective action objectives (CAOs) for the site and outlines plans to meet the CAOs and mitigate the impacts discussed above (AMEC, 2014). The Design Report includes detailed information regarding the design of the corrective actions proposed to mitigate potential vapor intrusion risks to future site occupants. It should be noted that the former F.E. Pit and sump in Building B are located within the area of PCE and TCE impacts that is being addressed by the corrective actions outlined in the Design Report.

During the course of the previous investigations, soil, groundwater, and/or soil vapor sampling were also performed at various locations within the site buildings, including at several former hydraulic lifts, a second former sump within Building B, a drain pipe in Building B, and a possible former sump in Building C during the previous site investigations (Figure 3). The sample results indicated that there were no significant impacts in the vicinity of these features, except for a limited release of hydraulic oil at a former hydraulic lift within Building B (AMEC, 2011a). However, additional sampling was planned to be conducted following removal of the site buildings to confirm the absence of impacts and/or identify other areas of impacts; that additional sampling is discussed in this Report.

#### 2.0 MONITORING WELL, PIEZOMETER, AND SOIL VAPOR PROBE DESTRUCTION

As noted in Section 1.0, seven groundwater monitoring wells and three piezometers were present at the site in 2014. Additionally, four soil vapor probes remained at site in 2014, related to previous investigation activities. The soil vapor probes, monitoring wells, and piezometers were destroyed in August and December 2014 so that they would not be damaged during site demolition and re-grading work, potentially creating a conduit for contaminants to travel from the ground surface to groundwater. Replacement monitoring wells will be installed following site redevelopment. A work plan for installation of the replacement wells is included in the Design Report (Amec Foster Wheeler, 2015c).

The monitoring well, piezometer, and vapor probe destruction methods are described below.

# 2.1 MONITORING WELL AND PIEZOMETER DESTRUCTION

The groundwater monitoring wells and piezometers were destroyed in August and December 2014 by grouting and/or overdrilling, as discussed further below. Building demolition activities were originally scheduled for early fall 2014 and monitoring well MW-03 was located within Building B at the site. Therefore, this monitoring well was destroyed before the other monitoring wells in preparation for the building demolition work.

The work was performed in accordance with state (California Department of Water Resources, 1991) and Zone 7 Water Agency requirements by National Exploration, Wells & Pumps ("National"), of Richmond, California, or Gregg Drilling and Testing, Inc. ("Gregg"), of Martinez, California, both California-licensed C-57 contractors working under the supervision of an Amec Foster Wheeler California-licensed Professional Geologist.

Table 1 provides the well and piezometer construction details. Four of the groundwater monitoring wells (MP-01 through MP-04) were three-port continuous-multichannel-tubing (CMT) wells installed within 6-inch-diameter boreholes. Three of the groundwater monitoring wells (MW-01 through MW-03) were 1-inch-diameter pre-pack monitoring wells installed in 3.25-inch-diameter boreholes. The three piezometers (PZ-01 through PZ-03) were constructed using 2-inch-diameter polyvinyl chloride ("PVC") well screen and casing in 8.25-inch-diameter boreholes.

Prior to the well destruction activities, well destruction permits were obtained from the Zone 7 Water Agency. Copies of the permits are included in Appendix A. Additionally, Amec Foster Wheeler marked the anticipated boundaries of the areas to be sampled with white paint and notified Underground Service Alert of Northern California ("USA") at least two business days in advance of the work, as required by law, to identify public utilities, if any, that may be in the vicinity of the sample locations. No active utilities were identified within sample areas.

The well destruction activities were performed by Gregg on December 18 and 19, 2014, with the exception of monitoring well MW-03, which was destroyed by National on August 26, 2014. The concrete well pads were first broken up using a pneumatic jack hammer and the traffic-rated well vaults were removed, with care taken not to damage the casings.

The CMT wells were destroyed by pumping grout into each of the individual well chambers in the well from total depth to top of casing using a peristaltic pump and new polyethylene tubing as a tremie. Grout was pumped into each chamber until it surfaced at the well head and pumping continued while the tubing was removed. Because the planned site redevelopment includes site grading, which may extend to a depth of up to 5 feet below ground surface (bgs), the upper approximately 5 feet of each well was destroyed by overdrilling using hollow-stem auger drilling technology, and the resulting borehole was backfilled with bentonite. Because each CMT well was installed within a 6-inch-diameter borehole, 8.25-inch-diameter augers were used to overdrill the top 5 feet of each well.

The 1-inch pre-pack monitoring wells and the 2-inch piezometers were destroyed by overdrilling. Hollow-stem auger drilling technology was used to overdrill each well borehole to total depth and remove the casing, screen, and all annular materials (Table 1). Based on the original borehole diameter of the pre-pack wells (3.25 inches), 8.25-inch-diameter hollow stem augers were used to destroy these wells. Based on the original borehole diameter of the

piezometers (8.25 inches), 10.25-inch-diameter hollow stem augers were used to destroy each piezometer. After overdrilling, each borehole was backfilled by placing neat cement grout from the bottom of the boring to approximately 5 feet bgs using a PVC tremie pipe. In order to facilitate grading, the top 5 feet of each well was backfilled with bentonite.

#### 2.2 VAPOR PROBE DESTRUCTION

Four vapor probes (SG-13 through SG-16), each installed to a total depth of approximately 8.5 feet bgs, were destroyed in accordance with the California Environmental Protection Agency ("Cal/EPA") *Advisory, Active Soil Gas Investigations* (Cal/EPA, 2012), on August 25, 2014. Prior to destruction, a vapor probe destruction permit was obtained from the Zone 7 Water Agency. A copy of the permit is included in Appendix A. The work was performed by Amec Foster Wheeler staff under the supervision of a California-licensed Professional Geologist.

The vapor probe construction details are included in Table 2. The probes were destroyed by removing the surface completion, filling the vapor probe tubing with neat cement grout, cutting and removing any exposed tubing, and filling the open hole with asphalt patch to match the existing surface.

### 3.0 POST-DEMOLITION SOIL SAMPLING

In accordance with the Work Plan, an Amec Foster Wheeler environmental professional was present at the site during site demolition activities between December 15, 2014, and March 27, 2015, to observe and collect soil samples during activities that resulted in ground disturbance or the removal of hardscape, slabs, foundations, subsurface piping, utilities, and other features that previously covered the ground surface. As discussed in Section 1.0, investigation activities had previously been conducted in the vicinity of many of these features prior to site demolition and had not identified significant impacts.

Soil samples were collected from pre-determined locations described in the Work Plan (e.g., at several locations beneath two of the building slabs and at designated intervals beneath subsurface utilities), from locations where field observations (e.g. photoionization detector ["PID"] readings, odor, and/or color) indicated the presence of potentially chemically impacted soil, and from beneath features that were not previously identified. Samples were collected at the locations of the following features and items that were identified during Amec Foster Wheeler's environmental oversight and that had not been previously documented or recommended for sampling in the Work Plan:

- Greenish-gray soil was identified at depths from approximately 1.5 to 4 feet bgs in several areas beneath portions of the footings for former Buildings B and D, as well as adjacent to hydraulic lift 4 in Building B.
- A sump was identified in Building C (distinct from the suspected former sump in Building C that was described in the Work Plan), as well as an associated drain line connecting it to the sanitary sewer line between Buildings B and C.

- The sanitary sewer line between Buildings B and C, which connected to the main lateral in Dublin Boulevard, extended farther south than anticipated, connecting to the drain line from the sump in Building C.
- A sump was identified in the former car wash east of Building B.
- Piping from a former waste oil tank was observed at the south side of Building B.

No other features were identified and no other field observations were made that would warrant collection of samples. Additionally, the Work Plan indicated that samples would be collected at the locations of two suspected former hydraulic lifts in Building B; however, there was no evidence of one of those hydraulic lifts following removal of the building slab.

The following subsections describe the pre-demolition activities, soil sampling procedures, sample locations and observations, laboratory analyses, a review of data quality, and a summary of results.

#### 3.1 **PRE-DEMOLITION ACTIVITIES**

The planned sampling locations and building footprints were surveyed by Kister, Savio, & Rei, Inc., of Pinole, California, a California-licensed land surveyor, on September 29, 2014, to facilitate location of site features (e.g., slab locations, drain pipes, and former sump locations) following site demolition. A copy of the survey report is included in Appendix B.

Prior to soil sampling, a permit was obtained from the Zone 7 Water Agency. A copy of the permit is included in Appendix C. Prior to each phase of work, Amec Foster Wheeler marked the anticipated boundaries of the areas to be sampled with white paint and notified USA, as required by law, to identify public utilities, if any, that may be in the vicinity of the sample locations. No active utilities were identified within sample areas.

#### 3.2 HEALTH AND SAFETY

Field activities performed by Amec Foster Wheeler personnel were conducted in accordance with Amec Foster Wheeler's *Environmental Site Health and Safety Plan* ("Health and Safety Plan;" AMEC, 2014b). Additionally, the demolition contractor developed and followed their own separate health and safety plan for the excavation and backfill activities.

During excavation of affected soil, Amec Foster Wheeler personnel used a MiniRAE 3000 PID with a 10.6 eV bulb to screen breathing zone air for the presence of volatile organic compounds (VOCs). The instrument was calibrated with a 100 ppmv isobutylene standard according to the individual instrument specifications at the manufacturer's recommended calibration frequency. The measured readings were compared to action levels listed in the Health and Safety Plan to determine whether respiratory protection or other mitigating measures would be required. Action levels were not exceeded during the excavation activities; therefore, no additional mitigation measures for worker protection were required.

#### 3.3 SOIL SAMPLING NOMENCLATURE AND METHODS

Seventy post-demolition soil samples were collected by Amec Foster Wheeler from December 15, 2014, through January 6, 2015, and from March 25 through March 27, 2015. The sample IDs include identifiers based on the building or feature sampled, as follows (Table 3):

- CW Samples collected beneath a sump at the car wash east of Building B.
- BBFS and BCFS Samples collected beneath former known and suspected sumps in Buildings B and C.
- WOTP Samples collected beneath waste oil tank piping at Building B.
- SSB, SSC, SSD Sub-slab samples collected beneath Buildings B, C, or D.
- HL Samples collected at former hydraulic lifts in Building B.
- DL and BCDL Samples collected beneath drain lines in Buildings B and C, respectively.
- SL Samples collected beneath the sanitary sewer line that connected the drain lines in Buildings B and C to the main lateral in Dublin Boulevard.
- OB Samples collected of stockpiled overburden soil.

The sample IDs are followed by a number that distinguishes each sample location (if applicable); the final number in each sample ID identifies the depth below ground surface at which each sample was collected.

The soil samples were collected using a hand auger or collected directly from an excavator bucket after removing the top 1 to 3 inches of soil in order to avoid sampling soil where volatilization might have occurred. The hand auger was decontaminated between use at each sampling location using an Alconox or Liquinox solution. The soil was screened using a PID prior to placement into sample containers.

Soil samples collected for analysis of non-volatile or semi-volatile constituents were placed directly into clean, laboratory-supplied glass jars. Soil samples collected for analysis of VOCs and total petroleum hydrocarbons quantified in the gasoline range ("TPHg") were placed into laboratory-supplied volatile organic analysis (VOA) containers, using a new, clean TerraCore<sup>™</sup> sampler for each sample. The VOA containers were supplied by the laboratory with preservatives in accordance with U.S. Environmental Protection Agency ("U.S. EPA") Method 5035. The samples were immediately labeled with unique identifiers and the sample collection time, and placed into zip-closure plastic bags. The soil samples were stored in ice-cooled chests pending transport to TestAmerica Laboratories, Inc. ("TestAmerica") of Pleasanton, California, a California Department of Public Health–certified laboratory, under Amec Foster Wheeler chain-of-custody procedures.

#### 3.4 SUB-SLAB, SUMP, AND FORMER UST PIPING SAMPLING

From December 15, 2014, through January 6, 2015, Amec Foster Wheeler collected 22 soil samples from locations beneath former building slabs, beneath sumps and a suspected sump location, and beneath piping associated with a former underground storage tank (UST). The samples were collected from soil that was located beneath base rock or piping backfill. The soil samples were placed into sample containers, labeled, and stored using the methodology described in Section 3.3. The sample locations are described below and depicted on Figure 3.

- Four confirmation soil samples were collected below the following sump locations:
- One sample (CW-S-3.5) was collected 0.5 foot below a former sump located in the car wash area east of Building B;
- One sample (BCFS1-2.5) was collected 0.5 foot below a former sump within Building C;
- One sample (BCFS2-2.5) was collected 0.5 foot below a suspected former sump within Building C; and
- One sample (BBFS1-2.5) was collected 0.5 feet below a former sump within Building B.
- Three confirmation soil samples (WOTP1-1.25, WOTP2-2.5, and WOTP3-4.0) were collected 0.5 foot below piping associated with a former waste oil UST located south of Building B.
- Twelve sub-slab soil samples (SSB1-1.0, SSB2-1.0, SSB3-1.0, SSB4-1.0, SSB6-1.0, SSB7-1.0, SSC1-1.0, SSC2-1.0, SSC3-1.0, SSC4-1.0, SSC5-1.0, and SSC6-1.0) were collected 1.0 foot below the concrete slabs for former Buildings B and C (six samples from below each building slab).
- Three soil samples (SSB5-1.5, SSB8-2.5, and SSD1-1.5) were collected where greenish-gray soil was observed at three locations beneath former Buildings B and D. Samples were collected from these locations to assess whether the soil color was natural or potentially due to historical chemical releases at the site. No odor or elevated PID readings were associated with the greenish-gray soil.

Fourteen of these samples were collected from locations designated in the Work Plan and eight of these samples were supplemental to those designated in the Work Plan. The supplemental samples were collected beneath the two previously unidentified sumps (one in Building C and one in the car wash east of Building B), beneath piping related to a former waste oil tank that had been previously removed, and at the location of greenish-gray soil. No additional sumps or piping were identified and no field observations of impacts (e.g., elevated PID readings, odor, or color) were observed to indicate the need for additional more frequent sampling.

#### 3.5 BUILDING B HYDRAULIC LIFT SAMPLING

On December 29, 2014, Amec Foster Wheeler collected soil samples beneath the base of the 14 hydraulic lifts formerly located within Building B, following their removal. The work plan

proposed samples at 13 known and 2 suspected former hydraulic lifts; however, there was no evidence of a hydraulic lift at one of the suspected former lift locations.

One soil sample was collected at each former hydraulic lift location from a depth of approximately 8 feet bgs (the approximate bottom depth of each lift). The soil samples were collected using a hand auger at locations where the hydraulic lift excavation remained open following removal of the hydraulic lift (sample locations HL-1, HL-3, HL-6 and HL-8; Figures 3 and 4). At locations where the sidewalls of hydraulic lift excavations sloughed into the bottom of the excavations, the soil samples were collected directly from the backhoe bucket. The soil samples were placed directly into sample containers, labeled, and stored using the methodology described in Section 3.3. Odors (interpreted by field staff to be related to petroleum hydrocarbons) and staining were observed in soil beneath hydraulic lifts 3 and 8 (HL-3 and HL-8, respectively), and PID readings up to 13 parts per million by volume (ppmv) were noted at hydraulic lift HL-3. No odors, staining, or elevated PID readings were observed in soil from beneath the other 12 hydraulic lifts.

#### 3.6 SAMPLING BELOW DRAINAGE PIPES IN BUILDING B AND C AND SANITARY SEWER PIPE

In December 2014 and March 2015, Amec Foster Wheeler collected 34 soil samples beneath former sump drain pipes in Buildings B and C and from beneath a former sanitary sewer pipe (Figure 3). The soil samples were collected immediately following the removal of the drain pipes and the sanitary sewer pipe. In accordance with the Work Plan, Amec Foster Wheeler staff collected one soil sample per every approximately 20 linear feet of drain pipe or sanitary sewer pipe. Each sample was collected at a depth of 0.5 foot below the bottom of the excavated utility trench using a hand auger. The soil samples were placed into sample containers, labeled, and stored using the methodology in Section 3.3 above. The sample locations, collection dates, and observations are described below.

- Eight samples (DL-2 through DL-9) were collected from 0.5 foot beneath a drainage pipe that ran from a former sump in Building B and connected to the sanitary sewer pipe located to the west of Building B (Figure 3). The samples were collected from soil located beneath the piping backfill at depths ranging from 2.5 to 5.0 feet bgs. Seven samples were collected on December 30, 2014, and one sample was collected on March 30, 2015. No odors, staining, or elevated PID readings were observed in the samples collected from beneath the drainage pipe.
- Twenty-one samples (SL1 through SL21) were collected from 0.5 foot beneath a former sanitary sewer pipe formerly located to the east of Building C and extending north to Dublin Boulevard (Figure 3). The samples were collected from soil located beneath the piping backfill and at depths ranging from 3.0 to 6.8 feet bgs. The samples were collected from March 25 through 30, 2015. No odors, staining, or elevated PID readings were observed in the samples collected from beneath the sanitary sewer, with the exception of one PID reading of 22.4 ppmv from location SL-7.

• Five soil samples (BCDL1 through BCDL5) were collected from 0.5 foot beneath a former drainage pipe that began at a former sump in Building C and connected to the sanitary sewer east of Building C (Figure 3). The samples were collected from soil located beneath the piping backfill and at depths ranging from 1.0 to 2.8 feet bgs. Three samples were collected on December 30, 2014 and two samples were collected on March 30, 2015. No odors, staining, or elevated PID readings were observed in the samples collected from beneath the former drainage pipe.

Twenty-five of these samples were collected from locations designated in the Work Plan and nine of these samples were supplemental to those designated in the Work Plan. The supplemental samples were collected at the frequency specified in the Work Plan (i.e., one sample per 20 linear feet of piping) beneath the previously unidentified drain line from the sump in Building C to the sewer lateral and in a portion of the sewer lateral adjacent to Building C that had not been previously identified. No other drainage or sewer lines were observed and no field observations of impacts (e.g., PID readings, odor, or color) were observed to indicate the need for additional more frequent sampling along the drain lines.

#### 3.7 LABORATORY ANALYSES OF POST-DEMOLITION SOIL SAMPLES

The post-demolition soil samples were submitted to TestAmerica for analysis for the following constituents:

- VOCs and TPHg using U.S. EPA Method 8260B;
- TPH quantified in the diesel range (TPHd) and TPH quantified in the motor oil range ("TPHmo") by U.S. EPA Method 8015, following a silica gel preparation procedure in accordance with U.S. EPA Method 3630B;
- Polychlorinated biphenyls ("PCBs") by U.S. EPA Method 8082A (former hydraulic lift locations only);
- Semi-volatile organic compounds ("SVOCs") by U.S. EPA Method 8270C; and
- CA LUFT-5 Metals (cadmium, chromium, lead, nickel, and zinc) by U.S. EPA Method 6010B.

Table 3 presents sample ID, collection date, depth, description, and analyses performed for each sample.

#### 3.8 DATA QUALITY REVIEW OF POST-DEMOLITION SOIL SAMPLES

Amec Foster Wheeler evaluated the analytical data from the post-demolition soil samples using guidelines set forth in the *National Functional Guidelines for Superfund Organic Methods Data Review* (U.S. EPA, 2014a) and *National Functional Guidelines for Superfund Inorganic Methods Data Review* (U.S. EPA, 2014b). Quality assurance procedures implemented as part of the data quality review for soil samples collected during Amec Foster Wheeler's December 2014 through March 2015 investigation included the collection and laboratory analysis of matrix spike/matrix spike duplicate samples, and laboratory analysis of method blank samples, surrogate spikes, and laboratory control samples/laboratory control sample duplicates. Based on an evaluation of data quality, data qualifiers were assigned to the analytical results. Some data were qualified as estimated (i.e., qualified with "J", "J-", "J+," or "UJ") and some data were qualified as rejected (i.e., qualified with "R"). The data qualifiers are included in the summary tables and the reasons for application of the qualifiers are summarized in the data quality review report presented in Appendix D. The results of the data quality review indicate that the analytical results are valid and useable, with the exception of the rejected results.

#### 3.9 POST-DEMOLITION SAMPLING ANALYTICAL RESULTS

The analytical results for the post-demolition soil samples are summarized in Tables 4 through 9 and illustrated on Figures 5 through 12. Copies of the laboratory analytical reports and sample chain-of-custody records are included in Appendix E.

To evaluate the data collected as part of the post-demolition sampling program, the soil sample results are compared to Environmental Screening Levels (ESLs) published by the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), for shallow soil in a residential land use setting (Regional Water Board, 2013a). The soil results are compared to the lowest of the values shown in Table A-1 of the ESL document, pertaining to ESLs for sites where groundwater is a current or potential drinking water resource.

The ESLs were developed to address environmental protection goals for different pathways. As described by the Regional Water Board, ESLs are conservative screening levels that correspond to an acceptable risk level; concentrations of the constituents below their respective ESLs can be considered to pose no significant risk, within noted limits. Concentrations of constituents above their respective ESLs do not necessarily indicate that an unacceptable risk is present, but rather suggest that additional evaluation is warranted. It should be noted that the final values recommended in Table A-1 select the lowest value from the ceiling value (e.g., odor threshold) and risk-based values protective of the following pathways: urban area ecotoxicity, human health due to direct contact, and protection of groundwater quality. Not all of the pathways considered may be directly applicable to the site now or in the future.

Six of the post-demolition soil samples contained at least one chemical constituent at concentrations greater than ESLs. Figure 3 shows these sample locations and the analytical results are provided on Tables 4 through 7 and Table 9. The sample locations and constituents detected at concentrations greater than ESLs in the six samples are described below. As noted previously, the final number in each sample ID indicates the depth below ground surface at which each sample was collected.

• BCFS1-2.5, collected 0.5 foot beneath the former sump in Building C:

- TPHd at 150 milligrams per kilogram (mg/kg), compared to the ESL of 100 mg/kg;
- o TPHmo at 210 mg/kg, compared to the ESL of 100 mg/kg;
- o 2-Methylnaphthalene at 0.27 mg/kg, compared to the ESL of 0.25 mg/kg; and
- o Lead at 100 mg/kg, compared to the ESL of 80 mg/kg.
- WOTP1-1.25, collected 0.5 foot beneath the former waste oil UST piping:
   TPHmo at 120 mg/kg.
- HL-1-8.0, collected directly beneath former hydraulic lift 1 in Building B:
  - o TPHd at 1,600 mg/kg;
  - o TPHmo at 4,700 mg/kg; and
  - o PCB-1260 at 410 micrograms per kilogram ( $\mu$ g/kg), compared to the ESL of 220  $\mu$ g/kg.
- HL-3-8.0, collected directly beneath former hydraulic lift 3 in Building B:
  - o Toluene at 3,000  $\mu g/kg,$  compared to the ESL of 2,900  $\mu g/kg,$
  - o PCE at 590 µg/kg, compared to the ESL of 550 µg/kg,
  - o TPHd at 7,000 mg/kg;
  - o TPHmo at 20,000 mg/kg.
- HL-6-8.0, collected directly beneath former hydraulic lift 6 in Building B:
  - o TPHd at 1,800 mg/kg; and
  - o TPHmo at 5,000 mg/kg.
- HL-8-8.0, collected directly beneath former hydraulic lift 8 in Building B:
  - o TPHd at 770 mg/kg; and
  - o TPHmo at 990 mg/kg.

In accordance with the Work Plan, soil with constituents detected at concentrations greater than or equal to their respective ESLs was excavated and removed from the site. Section 4.0 describes this work in detail.

# 4.0 SOIL EXCAVATION AND REMOVAL

This section describes the soil excavation, confirmation sampling, and backfilling activities associated with removal of impacted soil identified by analyses of post-demolition soil samples.

The post-demolition sampling identified six locations (four hydraulic lifts in Building B, former waste oil UST piping adjacent to Building B, and a former sump in Building C; Figure 3) with soil with constituents at concentrations greater than ESLs (Section 3.9). Additionally, soil near the former F.E. Pit and former sump in Building B was previously identified as containing chemical constituents at concentrations greater than ESLs (Section 1.0). In accordance with

the Work Plan, soil was excavated and removed from these eight areas of the site. The work was conducted by Innovative Construction Solutions (ICS), of Oakland, California, under the oversight of Amec Foster Wheeler field personnel.

The pre-excavation and excavation field activities are discussed in the following sections.

#### 4.1 PRE-EXCAVATION ACTIVITIES

The pre-excavation activities included obtaining required permits and utility clearance, as described below.

### 4.1.1 Grading Permit

Prior to the start of excavation work, ICS obtained a grading permit from the City of Dublin (Permit No. PWGR-2015-00001). A copy of the permit is included in Appendix F.

### 4.1.2 Utility Clearance

Prior to beginning excavation work, the anticipated boundaries of the excavations were marked with white paint by ICS, and USA was contacted to identify public utilities in the vicinity of planned excavation areas. ICS also retained a private underground utility locator, Subdynamic Locating Services ("Subdynamic"), of San Jose, California, to identify belowgrade building utilities in the vicinity of the excavation areas. No active utilities were identified by Subdynamic.

# 4.1.3 Health and Safety

Field activities performed by Amec Foster Wheeler personnel were conducted in accordance with the Health and Safety Plan (Section 3.2). Additionally, ICS developed and followed their own health and safety plan for excavation activities.

# 4.2 GENERAL EXCAVATION ACTIVITIES

The excavation work was performed by ICS from February 16 through 25, 2015. ICS completed the excavations at the former F.E. Pit and the six locations identified during the post-demolition sampling using a DEERE 310K backhoe, and the deeper excavations at the former sump location using a CAT 314E excavator. The estimated volume of in-place soil excavated from the eight areas was approximately 295 cubic yards (527 tons). An overview of the excavation locations is shown on Figure 4. Figures 5 through 12 present each excavation area in more detail.

The excavation activities were overseen by Amec Foster Wheeler field staff. Soil removed from each excavation was screened for the presence of VOCs using a PID. The excavation sidewalls were also visually observed for field indications of impacts, including odor and color, to help target the locations of the confirmation samples. Confirmation samples were collected from the sidewalls and base of each excavation. The sidewall samples were collected from the

approximate horizontal midpoint of each excavation sidewall (only the outer sidewall for each slot trench at the former F.E. Pit and sump), at depths of 8 feet bgs at the former F.E. Pit and hydraulic lift excavation sidewalls and at the vertical midpoint of the other excavation sidewalls. Each bottom sample was collected near the horizontal and lateral midpoint of each excavation or slot trench. The confirmation sample locations were moved (or additional confirmation samples were added) if there were field indications of impacts (visual, odor, or elevated PID readings).

Section 4.5 includes details regarding the specific activities conducted and results for each excavation.

#### 4.2.1 Groundwater Storage

Where groundwater was encountered in excavations, the excavations were dewatered using a sump pump. The water was transferred to an on-site storage tank for temporary storage. Section 5.0 discusses characterization and final disposition of the water generated from excavation dewatering.

#### 4.2.2 Stockpiling

The excavated soil designated for off-site disposal was temporarily stockpiled on site on plastic sheeting and was covered with plastic sheeting at the end of each work day, with the exception of some non-impacted, shallow overburden soil that was removed to facilitate deeper excavations and promote sidewall stability. This soil was reused for backfill following testing as described below. The characterization and final disposal of the excavated stockpiled soil are discussed in Section 5.0.

Shallow overburden soil from above 5 feet bgs from the southernmost slot excavation at the former sump area and from the excavation at former hydraulic lifts 3, 6, and 8 (where impacts were not expected at depths shallower than 5 feet bgs) was stockpiled separately and sampled to confirm the absence of impacts, in preparation for re-use as backfill.

The soil planned for use as backfill was placed in two discrete overburden stockpiles and one 4-point composite soil sample was collected by Amec Foster Wheeler from each stockpile (OB1-1-4 and OB2-1-4). The samples were analyzed for the same constituents as the post-demolition samples, including PCBs and selected metals (see Table 3). The results for samples OB1-1-4 and OB2-1-4 are presented in Tables 4 through 6 and Tables 8 and 9). No analytes were detected in either sample at concentrations greater than their respective ESLs, with the exception of arsenic, which was detected at concentrations of 4.1 and 6.0 mg/kg in the two overburden samples (Table 8). However, background concentrations of arsenic in soil are commonly higher than the ESL. As noted on the website for the Regional Water Board ESLs, a 2011 master's thesis compiled publically available data for arsenic in the Bay Area and proposed an upper estimate (99<sup>th</sup> percentile) for background arsenic of 11 mg/kg within

the Holocene alluvium, which is found at the site and throughout the Bay Area (Duvergé, 2011). The mean arsenic concentration within the Holocene alluvium was determined to be 5.1 mg/kg in this study. Therefore, the soil was evaluated to be appropriate for use as backfill.

# 4.2.3 Backfilling

The excavations at former hydraulic lift 3, the former sump in Building B, and the former F.E. Pit were backfilled to 5 feet bgs or to grade (as discussed further in Section 4.5) with controlled density fill (CDF), a flowable backfill material that consists of approximately 94 pounds of Portland cement per cubic yard of sand and water. The CDF is intended to provide a competent backfill material that does not require compaction and that can still be excavated in the future. The CDF was poured into the slot excavations directly from the chute of a cement truck. The CDF mix design specifications are included in Appendix H. Where not backfilled to grade with the CDF, the remainder of these excavations were backfilled with the overburden soil that had been stockpiled and tested, as described in Section 4.2.2.

The other excavations (i.e., for the excavations for hydraulic lifts 1, 6, and 8; the waste oil tank piping, and the former sump in Building C) were backfilled to approximately 2 feet bgs using the upper 2 feet of overburden immediately adjacent to the excavations. At these excavations, ICS used the excavation equipment to grade shallow surrounding soil into the excavations and compact it with the bucket pending future site grading activities associated with the planned development.

#### 4.3 LABORATORY ANALYSES OF EXCAVATION CONFIRMATION SOIL SAMPLES

The excavation confirmation soil samples were analyzed for one or more of the following constituents:

- VOCs and TPHg using U.S. EPA Method 8260B;
- TPHd and TPHmo by U.S. EPA Method 8015 following a silica gel preparation procedure in accordance with U.S. EPA Method 3630B;
- PCBs by U.S. EPA Method 8082A (former hydraulic lift locations only);
- SVOCs by U.S. EPA Method 8270C; and
- Lead by U.S. EPA Method 6010B.

The analyses selected to be performed on the confirmation samples were based on the following scheme:

- If a constituent in the suite of VOCs/TPHg, SVOCs, or PCBs was detected in the original post-demolition sample at a concentration greater than the ESL, the confirmation samples were conservatively analyzed for that entire suite of constituents (e.g., at HL-3, only PCE and toluene were detected above their ESLs, but the confirmation samples were analyzed for the entire suite of VOCs).
- If a metal was detected at a concentration greater than the ESL, only that metal was analyzed in the confirmation samples (e.g., lead at BCFS1).

• If TPHd or TPHmo was detected at a concentration greater than the ESL, only that TPH range was analyzed in the confirmation samples (e.g., TPHmo at WOTP1).

Table 3 presents each sample ID, collection date, depth, description, and the analyses performed on each sample.

#### 4.4 DATA QUALITY REVIEW OF EXCAVATION CONFIRMATION SOIL SAMPLES

Amec Foster Wheeler evaluated the analytical data for the excavation confirmation soil samples using the same protocols as were used for the post-demolition soil sample analyses. Based on an evaluation of data quality, some data were qualified as estimated (qualified with "J-" or "UJ"). The results of the data validation are provided in Appendix D and indicate the analytical results are valid and useable for project objectives.

#### 4.5 EXCAVATION DETAILS AND CONFIRMATION SAMPLING RESULTS

The analytical results for the confirmation soil samples collected during the excavation work are summarized in Tables 4, 5, 6, 7, and 9, are illustrated on Figures 5 through 12, and are discussed below. The analytical results of the excavation sampling were compared to residential ESLs. Each figure presents the results for the initial and confirmation samples for chemicals detected at concentrations above ESLs in any sample at that excavation area.

Copies of the laboratory analytical reports and sample chain-of-custody records are included in Appendix G.

#### 4.5.1 Former F.E. Pit and Sump Excavations

As noted in Section 1.0, remedial excavation activities were previously performed in Building B at the former F.E. Pit and former sump in October 2011 to remove VOC-affected soil, concrete, and pea gravel, as documented in the *Remediation Report* (AMEC, 2011a). At both the former F.E. Pit and former sump, VOC-affected soil was excavated and removed, and the excavations were backfilled with controlled-density fill. However, it was not possible to excavate some VOC-affected soil from beneath the building walls and foundations. As a result, the FS/CAP outlined general plans for removal of the remaining VOC-affected soil following the demolition of the site buildings.

The excavations were designed to proceed laterally until confirmation samples indicated chemicals in soil were less than ESLs. A slot-cutting method similar to that of the previous excavation effort was chosen for the additional soil removal design to avoid the need to install traditional shoring. The vertical extents of the excavations were designed to be the same as the 2011 excavation depths (i.e., 16 feet bgs at the former sump and 12 feet bgs at the former F.E. Pit). The actual depths and widths of the excavations at the former F.E. Pit and sump are described in the following subsections.

Confirmation samples were collected from each of the excavations using the bucket of the backhoe or excavator; the soil from the bucket was placed directly into sample containers. The samples were identified by feature (i.e., FEPIT or SUMP for the former F.E. Pit or former sump), EXS or EXB (excavation sidewall and bottom samples, respectively), and a numeral indicating the sample number. The sample depth is not included in the sample ID for these samples. The soil samples were placed directly into sample containers, labeled, and stored using the methodology described in Section 3.3.

The locations of the confirmation soil samples collected from the former F.E. Pit and former sump are shown on Figures 4, 5, and 6. Details of each excavation are described below.

#### 4.5.1.1 Former F.E. Pit

On February 17, 2015, ICS excavated one slot trench along each of the north, south, and east sides of the former F.E. Pit excavation (the perimeters of which had been staked by KSR). A backhoe was used to remove the affected soil in slots to 12 feet bgs using either an 18-inch or 36-inch wide bucket. The width and length of each slot excavation varied due to the former F.E. Pit's previous excavation boundaries. No discolored soil, odor, or elevated PID readings were observed during excavation. Groundwater was encountered in the excavations at approximately 12 feet bgs.

Following excavation of the soil, Amec Foster Wheeler collected confirmation samples from the outer sidewall and bottom of each slot (FEPIT-EXS-11, FEPIT-EXB-12, FEPIT-EXS-13, FEPIT-EXB-14, FEPIT-EXS-15, and FEPIT-EXB-16). The sidewall samples were collected from the approximate horizontal midpoint of the outer sidewall of each slot excavation at an approximate depth of 6 feet bgs (as noted above, there were no field indications of impacts to warrant adjustment of the confirmation sample locations). Each bottom sample was collected near the horizontal and lateral midpoint at an approximate depth of 12 feet bgs.

The confirmation samples were analyzed for VOCs and TPH; the analytical data are summarized in Tables 4 and 5. Additionally, the analytical results for TPH and selected VOCs (i.e., those constituents detected above ESLs in at least one sample) are posted on Figure 5. The results for the sidewall and bottom samples indicate that soil with concentrations greater than ESLs was removed from the former F.E. Pit area, with the exception of the TPHd and TPHmo detected slightly above ESLs at the base of the east slot excavation at 12 feet bgs (FEPIT-EXB-14; Figure 5). TPHd was detected in this sample at a concentration of 160 mg/kg and TPHmo was detected at a concentration of 300 mg/kg, which slightly exceed the ESL (100 mg/kg for both constituents). The ESL is based on the ceiling value (100 mg/kg), selected by the Regional Board to protect against "nuisance" concerns such as odor or general resource degradation (Regional Water Board, 2013b). The residential direct exposure ESLs for TPHd and TPHmo, established specifically to be protective of human health, are 240 and 10,000 mg/kg, respectively, above the concentrations of TPHd and TPHmo in this sample. The ESL Amec Foster Wheeler

for TPHd based on the protection of groundwater from TPHd that might leach from soils is 570 mg/kg and there is no ESL for TPHmo based on the protection of groundwater from TPHmo that might leach from soils.

A total of approximately 54 cubic yards of in-place soil was removed from the slot excavations around the former sump. The approximate dimensions of each slot excavation are provided below and excavation extents are shown on Figure 5:

- <u>South Slot Excavation</u> 4 feet wide by 18 feet long, 12 feet deep.
- East Slot Excavation 4 feet wide by 17.5 feet long, 12 feet deep.
- North Slot Excavation 1.5 feet wide by 15.5 feet long, 12 feet deep.

The excavations were backfilled to grade with CDF, as described in Section 4.2.

#### 4.5.1.2 Former Sump Excavation

On February 18, 2015, ICS excavated one slot along each of the north, south, and east sides of the former sump excavation (the perimeters of which had been staked by KSR). An excavator was used to remove the affected soil in slots to a maximum width of 3 feet. Although the Work Plan indicated the excavations would be advanced to 16 feet bgs, the excavations were only advanced to maximum depths of 14 to 15.5 feet bgs due to the presence of groundwater at 12 feet bgs which decreased soil stability by undermining the adjacent soil and hardened CDF in adjacent slot excavations. Prior to excavation of slots deeper than 12 feet bgs, approximately 4.5 feet of overburden soil was removed 5 feet laterally from the extent of the slot to reduce soil instability by decreasing soil surcharge.

Following excavation of each slot, Amec Foster Wheeler collected confirmation samples from the outer sidewall and bottom of each slot (SUMP-EXS-9, SUMP-EXS-10, SUMP-EXB-11, SUMP-EXS-12, SUMP-EXS-13, SUMP-EXB-14, and SUMP-EXB-15). Two confirmation samples were collected from the initial north sidewall: one from the approximate horizontal midpoint of that sidewall at 4 feet bgs (SUMP-EXS-12), where elevated PID readings were measured (up to 40 ppmv), and one directly beneath at 10 feet bgs (SUMP-EXS-13). The south and east slot excavation sidewall samples were collected from the approximate horizontal midpoint of each sidewall at 8 feet bgs. Each bottom sample was collected near the horizontal and lateral midpoint at the base of each excavation.

The confirmation samples were analyzed for VOCs and TPH; the analytical data are summarized in Tables 4 and 5. Additionally, the analytical results for selected VOCs (i.e., those constituents detected above ESLs in at least one sample) are posted on Figure 6. The results of the confirmation samples collected on the outer sidewalls of the north (SUMP-EXS-12 at 4 feet bgs) and south (SUMP-EXS-9 at 8 feet bgs) slot excavations indicated concentrations of constituents in soil exceeding ESLs; therefore, on February 20, 2015,

additional slot excavations were advanced to the north and to the south and additional confirmation samples collected from the sidewalls (SUMP-EXS-17 and SUMP-EXS-18).

The results for the sidewall and bottom samples indicate that soil with concentrations greater than ESLs was removed from the former sump area, with the exception of the one VOC detected slightly above the ESL at the base of the east slot excavation at 14 feet bgs (SUMP-EXB-11; Figure 6); the east slot excavation could not be excavated deeper due to the instability of the soil. 1,2-Dichlorobenzene (1,2-DCB) was detected in this sample at a concentration of 1,200  $\mu$ g/kg, which slightly exceeds the ESL (1,100  $\mu$ g/kg). The ESL is based on the protection of groundwater; however, a) groundwater is not used for drinking water in the vicinity of the site and concentrations in soil are below the ESL for sites where groundwater is not a drinking water resource (1,600  $\mu$ g/kg), and b) groundwater monitoring conducted at former monitoring well MW-03, approximately 15 feet southeast of the sump (Figure 6) has indicated concentrations of 1,2-DCB have remained at or below 5 micrograms per liter ( $\mu$ g/L; compared to the drinking water ESL of 10  $\mu$ g/L).

A total of approximately 130 cubic yards of in-place soil was removed from the slot excavations around the former sump. The approximate dimensions of each slot excavation are provided below and excavation extents are shown on Figure 6:

- <u>South Slot Excavation</u> –3 feet wide by 21 feet long, 15.5 feet deep.
- East Slot Excavation 1.5 feet wide by 25 feet long, 14.0 feet deep.
- North Slot Excavation 3 feet wide by 21 feet long, 15.0 feet deep.
- Additional South Slot Excavation 2 feet wide by 16 feet long, 15 feet deep.<sup>1</sup>
- <u>Additional North Slot Excavation</u> 2 feet wide by 18 feet long, 10 feet deep.

The three initial slot excavations were backfilled to grade with CDF. The additional north and south slots were backfilled to approximately 4 feet bgs with CDF and then backfilled to grade with onsite overburden soil (as described in Section 4.2).

# 4.5.2 Excavations Based on Post-Demolition Sampling

In accordance with the Work Plan, soil identified during the post-demolition sampling to contain chemical constituents at concentrations greater than ESLs (i.e., soil beneath the sump in Building C, the waste oil UST piping at Building B, and hydraulic lifts 1, 3, 6, and 8) was excavated and removed in February 2015 using conventional excavation equipment.

<sup>&</sup>lt;sup>1</sup> Prior to excavation of the slot, overburden soil was removed to increase soil stability by decreasing soil surcharge. However stability issues were observed while digging saturated soils at 15 feet bgs. Approximately 2 feet of undermining was observed below the adjacent 21-foot long CDF-filled slot (i.e. south slot excavation). Amec Foster Wheeler instructed ICS to dig the additional south slot excavation no longer than 16 feet, leaving 2-3 feet of soil on both ends of the slot to support the adjacent CDFfilled slot.

At each location, soil was initially excavated to approximately 2 feet laterally (for an excavation approximately 4 feet wide) and 2 feet below the initial sample location and until no evidence of chemical impacts (visual or odor) was observed. Following the initial excavation, one confirmation soil sample each was collected from the north, south, east, and west sidewalls, and excavation bottom. If needed, based on the results of the confirmation samples, the excavations were then continued laterally and/or vertically and additional confirmation soil samples were collected and the analytical results indicated no detections of constituents at concentrations greater than ESLs. The soil samples were placed directly into sample containers, labeled, and stored using the methodology described in Section 3.3. The locations where the confirmation soil samples were collected from the six excavation areas are shown on Figures 7 through 12).

Following sampling, the excavations were backfilled with CDF and/or site soil. Details for each of the six excavations are discussed below.

#### 4.5.2.1 Building C Sump Excavation

Soil removal was conducted below and around the former sump in Building C based on the results at sample location BCFS1-2.5, where TPHd, TPHmo, 2-methylnaphthalene, and lead were detected at concentrations greater than ESLs. On February 16, 2015, ICS excavated soil at the former Building C sump to a depth of approximately 4.5 feet bgs using a backhoe. No soil staining, odors, or elevated PID readings were observed during excavation.

Following soil removal, Amec Foster Wheeler collected five confirmation soil samples (BCFS1-4.5, BCFS1-N-2.5, BCFS1-W-2.5, BCFS1-S-2.5, and BCFS1-E-2.5). Four sidewall samples were collected from the approximate horizontal midpoint of each sidewall at 2.5 feet bgs and one bottom sample was collected at 4.5 feet bgs (Figure 7). The confirmation samples were analyzed for TPHd, TPHmo, SVOCs, and lead (Tables 5 through 7). The analytical results for those constituents detected above ESLs in at least one sample are shown on Figure 7. The results for the sidewall and bottom samples indicate that soil with concentrations greater than ESLs was removed from the former sump area, with the exception of a detection of 2methylnaphthalene at a concentration greater than the ESL in the east sidewall sample.

Based on this result, on February 25, 2015, the excavation was extended an additional 2 feet east of BCFS1-E-2.5, to a depth of 4.5 feet bgs, to remove the soil impacted with 2-methylnaphthalene. An additional confirmation sample (BCFS1-E1-2.5) was collected along the new east wall at a depth of 2.5 feet bgs and analyzed for SVOCs. The results of this sample confirmed that soil with concentrations of 2-methylnaphthalene greater than ESL was removed from the sump area.

A total of approximately 7 cubic yards of soil was removed from the Building C sump excavation. The excavation was subsequently were backfilled to approximately 2 feet bgs

using the upper 2 feet of overburden immediately adjacent to the excavations, as described in Section 4.2. The excavation extents, sample locations, and results are depicted on Figure 7.

#### 4.5.2.2 Waste Oil Tank Piping Excavation

Soil removal was conducted beneath piping associated with a former waste oil tank based on the results at sample location WOTP1-1.25, where TPHmo was detected at a concentration greater than the ESL. On February 16, 2015, ICS excavated soil from beneath the piping to a depth of approximately 3.25 feet bgs using a backhoe. No soil staining, odors, or elevated PID readings were observed during excavation.

Following soil removal, Amec Foster Wheeler collected five confirmation soil samples (WOTP1-N-1.25, WOTP1-W-1.25, WOTP1-S-1.25, WOTP1-E-1.25, and WOTP1-3.25). Four sidewall samples were collected at 1.25 feet bgs and one bottom sample was collected at 3.25 feet bgs (Figure 8). The confirmation samples were analyzed for TPHd and TPHmo (Table 5); the analytical results for TPHmo are shown on Figure 8. The results for sidewall and bottom samples indicate that soil with concentrations greater than ESLs was removed from the waste oil tank piping area, with the exception of a detection of TPHmo at a concentration greater than the ESL in the east sidewall sample.

Based on this result, on February 19, 2015, the excavation was extended an additional 3 feet east of WOTP1-E-1.25 and to a depth of 3.25 feet bgs to remove soil impacted with TPHmo. An additional confirmation sample (WOTP1-E1-1.25) was collected along the new east wall at a depth of 1.25 feet bgs and analyzed for TPHmo. The results of this sample confirmed that soil with concentrations of TPHmo greater than ESL was removed from the waste oil tank piping area.

A total of approximately 6 cubic yards of soil was removed from the former waste oil tank piping excavation. The excavation was subsequently backfilled to approximately 2 feet bgs using the upper 2 feet of overburden immediately adjacent to the excavation, as described in Section 4.2. The excavation extents, sample locations, and results are depicted on Figure 8.

# 4.5.2.3 Hydraulic Lift 1 Excavation

Soil removal was conducted below and around former hydraulic lift 1 based on the results at sample location HL-1-8.0, where TPHd, TPHmo, and PCB-1260 were detected at concentrations greater than ESLs. On February 16, 2015, ICS excavated soil at former hydraulic lift 1 to a depth of approximately 10 feet bgs using a backhoe. No soil staining, odors, or elevated PID readings were observed during excavation.

Following excavation, Amec Foster Wheeler collected five confirmation soil samples (HL1-N-8.0, HL1-S-8.0, HL1-E-8.0, and HL1-10). Four sidewall samples were collected at 8 feet bgs and one bottom sample was collected at 10 feet bgs (Figure 9). The confirmation

samples were analyzed for TPHd, TPHmo, and PCBs (Tables 5 and 9). The analytical results for those constituents detected above ESLs in at least one sample are shown on Figure 9. The results for the sidewall and bottom samples indicate that soil with concentrations greater than ESLs was removed from the hydraulic lift 1 area.

A total of approximately 9 cubic yards of impacted soil was removed from the former hydraulic lift 1 excavation. The excavation was subsequently backfilled to approximately 2 feet bgs using the upper 2 feet of overburden immediately adjacent to the excavation, as described in Section 4.2. The excavation extents, sample locations, and results are depicted on Figure 9.

#### 4.5.2.4 Hydraulic Lift 3 Excavation

Soil removal was conducted below and around former hydraulic lift 3 based on the results at sample location HL-3-8.0, where PCE, toluene, 2-methylnaphthalene, TPHd and TPHmo were detected at concentrations greater than ESLs. On February 16, 2015, ICS excavated soil at former hydraulic lift 3 to a depth of approximately 10 feet bgs using a backhoe. Soil with a greenish-gray color, an odor interpreted by the field staff to be related to petroleum hydrocarbons, and PID readings up to 11 ppmv was observed and removed during excavation.

Following soil removal, Amec Foster Wheeler collected five confirmation soil samples (HL3-N-8.0, HL3-W-8.0, HL3-S-8.0, HL3-E-8.0, and HL3-10). Four sidewall samples were collected at 8 feet bgs and one bottom sample was collected at 10 feet bgs (Figure 10). The confirmation samples were analyzed for VOCs, TPHd, TPHmo, and SVOCs (Tables 4 through 6). The analytical results for those constituents detected above ESLs in at least one sample are shown on Figure 10. The results for the sidewall samples indicate that soil with concentrations above ESLs was removed; however, the bottom sample contained TPHd, TPHmo, and 2methylnaphthalene at concentrations greater than ESLs.

Based on these results, on February 19, 2015, the excavation was extended approximately 3 feet deeper to an average depth of 13 feet bgs, to remove soil impacted with TPHd, TPHmo, and 2-methylnaphthalene. Additional odiferous greenish-gray soil was observed on the southwest sidewall during soil removal; therefore, the excavation was also extended laterally approximately 4 feet to the southwest to an average depth of 15 feet bgs. Groundwater was observed in the excavation at approximately 12 feet bgs (groundwater removal is discussed below).

Following the additional excavation, three confirmation soil samples were collected: one along the southwest sidewall at 10 feet bgs (HL3-SW-10.0), one at 12.8 feet bgs below the original bottom sample (HL3-12.8), and one from approximately 15 feet bgs at the bottom of the southwest portion of the enlarged excavation (HL3-15.0). Because the detection limits for some of the SVOCs were above their respective ESLs, two of the samples (HL3-12.8 and

HL3-15.0) were analyzed for SVOCs using U.S. EPA Method 8270C with selective ion monitoring (SIM), which has lower detection limits than EPA Method 8270C. The results of these samples confirmed that soil with concentrations of TPHd, TPHmo, and 2-methylnaphthalene greater than ESLs was removed from the former hydraulic lift 3 area.

A total of approximately 50 cubic yards of soil was removed from the former hydraulic lift 3 excavation. On February 25, 2015 the hydraulic lift 3 excavation was backfilled with CDF to approximately 5 feet bgs. Prior to CDF backfill, the excavation was dewatered using a sump pump. The groundwater removed from the excavation was transferred to an on-site 4,000-gallon holding tank. On March 9, 2015, overburden soil was used to backfill the remainder of the hydraulic lift 3 excavation to the ground surface. The excavation extents, sample locations, and results are depicted on Figure 10.

#### 4.5.2.5 Hydraulic Lift 6 Excavation

Soil removal was conducted below and around former hydraulic lift 6 based on the results of sample HL-6-8.0, where TPHd and TPHmo were detected at concentrations greater than ESLs. On February 16, 2015, ICS excavated soil to a depth of approximately 10 feet bgs at former hydraulic lift 6 using a backhoe. No soil staining, odors, or elevated PID readings were observed during excavation.

Following soil removal, Amec Foster Wheeler collected five confirmation soil samples (HL6-N-8.0, HL6-W-8.0, HL6-S-8.0, HL6-E-8.0, and HL6-10.0). Four sidewall samples were collected at 8 feet bgs and one bottom sample was collected at 10 feet bgs (Figure 11). The confirmation samples were analyzed for TPHd and TPHmo (Table 5); the analytical results are shown on Figure 11. The results for sidewall and bottom samples indicate that soil with concentrations greater than ESLs was removed from the former hydraulic lift 6 area, with the exception of TPHd and TPHmo in the north sidewall sample.

Based on this result, on February 19, 2015, the excavation was extended an additional 3 feet north to an average depth of 10 feet bgs to remove the soil impacted with TPHd and TPHmo. An additional confirmation sample (HL6-N1-8.0) was collected along the new north sidewall at a depth of 8 feet bgs and analyzed for TPHd and TPHmo. The results of this sample confirmed that soil with concentrations of TPHd and TPHmo greater than ESLs was removed from the former hydraulic lift 6 area.

A total of approximately 13 cubic yards of soil was removed from the former hydraulic lift 6 excavation. The excavation was subsequently backfilled to approximately 2 feet bgs using the upper 2 feet of overburden immediately adjacent to the excavation, as described in Section 4.2. The excavation extents, sample locations, and results are depicted on Figure 11.

#### 4.5.2.6 Hydraulic Lift 8 Excavation

Soil removal was conducted below and around former hydraulic lift 8 based on the results at sample location HL-8-8.0, where TPHd and TPHmo were detected at concentrations greater than ESLs. On February 16, 2015, ICS excavated soil at former hydraulic lift 8 using a backhoe. No soil staining or elevated PID readings were observed; however, an odor interpreted by the field staff to be related to petroleum hydrocarbons was noted in the upper 4 feet of soil removed during excavation.

Following soil removal, Amec Foster Wheeler collected six confirmation soil samples (HL8-N-8.0, HL8-W-8.0, HL8-S-4.0, HL8-S-8.0, HL8-E-8.0, and HL8-10.0). Four sidewall samples were collected at 8 feet bgs, one supplemental sidewall sample was collected at 4 feet bgs (HL8-S-4.0) based on observed odor, and one bottom sample was collected at 10 feet bgs (Figure 12). The confirmation samples were analyzed for TPHd and TPHmo (Table 5); the analytical results are shown on Figure 12. The results for the sidewall and bottom indicate that soil with concentrations greater than ESLs was removed from the former hydraulic lift 8 area, with the exception of TPHd and TPHmo detections in the west sidewall sample.

Based on this result, on February 19, 2015, the excavation was extended an additional 2 feet west of HL8-W-8.0 to a depth of 10 feet bgs to remove soil impacted with TPHd and TPHmo. An additional confirmation sample (HL8-W1-8.0) was collected along the new west sidewall at a depth of 8.0 feet bgs and analyzed for TPHd and TPHmo. The results of this sample confirmed that soil with concentrations of TPHd and TPHmo greater than ESLs was removed from the former hydraulic lift 8 area.

A total of approximately 20 cubic yards of soil was removed from the former hydraulic lift 8 excavation. The excavation was subsequently backfilled to approximately 2 feet bgs using the upper 2 feet of overburden immediately adjacent to the excavation, as described in Section 4.2. The excavation extents, sample locations, and results are depicted on Figure 12.

#### 5.0 WASTE MANAGEMENT

The following waste material generated during excavation activities was disposed of as nonhazardous waste:

- General construction debris: plastic sheeting; straw wattles; well, piezometer, and soil vapor probe casings and utility boxes; and other solid wastes that were not recyclable, not reusable, or had no salvage value.
- Rinsate from cleaning of sampling equipment.
- Excavated soil.
- Water from excavation dewatering.

The waste handling procedures are described in Sections 4.2.1 and 4.2.2. The waste characterization and waste disposal activities are discussed in the following sections.

#### 5.1 WASTE SOIL CHARACTERIZATION

One representative composite sample was collected from the excavated soil stockpile for waste characterization prior to completion of the remediation activities as requested by the disposal facility.

The composite sample included four discrete soil samples, WS1-1 through WS1-4, which were collected on February 18, 2015, from a consistent depth within the stockpile. The discrete samples from each sampling location were composited by the laboratory into one sample. The composited sample was analyzed by TestAmerica for the following constituents:

- VOCs and TPHg using U.S. EPA Method 8260B;
- TPHd and TPHmo using U.S. EPA Method 8015B;
- SVOCs using U.S. EPA Method 8270C;
- PCBs using U.S. EPA Method 8082; and
- Title 22 metals using EPA Methods 6010B/7471A.

The analytical results for WS1-1,2,3,4 are provided in Appendix I and indicate concentrations below both California and Federal hazardous waste criteria. The site soils along with plastic sheeting and straw waddles were disposed of offsite as non-hazardous waste (see Section 5.4)

#### 5.2 WASTE WATER CHARACTERIZATION

One representative waste water sample, WW-1, was collected from the excavation dewatering tank on February 25, 2015, and was analyzed by Test America for the following constituents:

- VOCs and TPHg using U.S. EPA Method 8260B;
- TPHd and TPHmo using U.S. EPA Method 8015B;
- SVOCs using U.S. EPA Method 8270C;
- PCBs using U.S. EPA Method 8082; and
- Title 22 metals using U.S. EPA Methods 6010B/7470A. •

The analytical results for sample WW-1 are provided in Appendix I and indicate concentrations are below both California and Federal hazardous waste limits. The groundwater was disposed of offsite as non-hazardous waste (see section 5.4).

#### 5.3 WASTE TRANSPORTATION AND DISPOSAL

A total of 527 tons of soil removed from the excavations was transported off-site by licensed waste haulers (see Appendix J). ICS provided vehicle inspections periodically for vehicles

transporting impacted soil from the site. The vehicle inspections included a visual inspection of the tractor and trailer rig to confirm the functionality and integrity of the tarp on the truck and to ensure that the vehicles would not track site soils onto paved public roads. Any issues with trucks were noted and the findings were shared with Amec Foster Wheeler and the driver at the time of inspection. The soil was disposed of as non-hazardous waste at Vasco landfill in Livermore, California, a licensed waste disposal facility. Copies of the waste soil disposal manifests are included in Appendix J.

A total of 800 gallons of wastewater that was removed during excavation dewatering activities and stored in a temporary holding tank was transferred into a vacuum truck and transported off-site by ACT Environmental Services, a licensed waste hauler. The waste water was disposed of as non-hazardous waste at the Seaport Refining and Environmental facility, of Redwood City, California, a licensed disposal facility. Copies of the waste water disposal manifests are included in Appendix J.

#### 6.0 EVALUATION OF PREVIOUS DATA

As discussed in Section 1.0, between 2009 and 2014, soil, soil vapor, and groundwater samples were collected from the site and analyzed for chemicals potentially related to past site operations and off-site sources. In previous investigation reports, these results were compared to residential (for soil and soil gas) and drinking water ESLs published in 2008. In 2013, ESLs were updated by the Regional Board; at which time some ESLs increased and some decreased. A summary of the relevant ESLs that decreased for chemicals detected in site media during and prior to 2013 is provided below and also included in Tables 10 through 12.

- Residential Land Use, Shallow Soil Screening Levels (groundwater is a current or potential drinking water resource; Table A-1)
  - TPHmo 2008 ESL was 370 mg/kg; 2013 ESL is 100 mg/kg. The ESL for TPHmo was used to evaluate results for TPHmo as well as for TPH quantified in the hydraulic oil range (TPHho).
- Residential Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion (Table E-2)
  - $_{\odot}$  Benzene 2008 ESL was 84 micrograms per cubic meter (µg/m³); 2013 ESL is 42 µg/m³
  - Bromodichloromethane 2008 ESL was 140 μg/m<sup>3</sup>; 2013 ESL is 33 μg/m<sup>3</sup>
  - Chloroform 2008 ESL was 460 μg/m<sup>3</sup>; 2013 ESL is 230 μg/m<sup>3</sup>
  - Ethylbenzene: 2008 ESL was 980 μg/m<sup>3</sup>; 2013 ESL is 490 μg/m<sup>3</sup>
  - $_{\odot}$   $\,$  PCE 2008 ESL was 410  $\mu g/m^{3};$  2013 ESL is 210  $\mu g/m^{3}$
  - TCE 2008 ESL was 1,200 μg/m<sup>3</sup>; 2013 ESL is 300 μg/m<sup>3</sup>
- Groundwater Screening Levels (groundwater is a current or potential drinking water resource; Table F-1a)

 $_{\odot}$  Hexavalent chromium – 2008 ESL was 11 µg/L; 2013 ESL is 0.02 µg/L

This Report is intended to be the final completion report to document soil conditions at the site prior to site redevelopment. Therefore, for completeness, Amec Foster Wheeler compared the historical site data for soil, as well as site data for groundwater and soil gas, to the 2013 ESLs. A summary of sample results that were less than the 2008 ESLs but greater than the 2013 ESLs is provided in the following sections.

Appendix K presents a summary of results for samples collected prior to 2013; new ESL exceedances are highlighted in yellow. The locations of these samples are shown in black on Figure 13, which also shows the locations of all the historical site samples (shaded back).

#### 6.1 SOIL

A summary of soil sample results that are greater than 2013 ESLs but less than 2008 ESLs is provided in Table 10. As noted above, all the historical soil results are presented in Appendix K; however, only the 2013 ESL reduction for TPHmo affected the evaluation of previous sample results (Table K-3).

Eighty-seven samples were previously analyzed for TPHmo and/or TPHho. Based on a comparison to the 2013 ESLs, the results for TPHmo or TPHho now exceed the ESL for TPHmo (100 mg/kg) in three additional samples. Soil removal has been performed in the vicinity of all locations where results for TPHmo and/or TPHho were greater than both the 2008 and 2013 ESLs.

As shown on Figure 13, each of the samples with new TPHmo or TPHho ESL exceedances is located in the vicinity of the former F.E. Pit in Building B. Sample B7-4.0 was collected just north of the former F.E Pit in 2009, sample FEPIT-EXB-10-12 was a bottom confirmation sample following soil removal at that location in 2011, and sample NM-B-11-14.5-15.0 was collected east of the former F.E. Pit, south of former hydraulic lift 6 (Figure 3).

It should be noted that the 2013 residential screening level for TPHmo is based on the ceiling value (100 mg/kg), selected by the Regional Board to protect against "nuisance" concerns such as odor or general resource degradation (Regional Water Board, 2013b). The residential direct exposure ESL for TPHmo, established specifically to be protective of human health, is 10,000 mg/kg, well above the highest remaining concentrations of TPHmo or TPHho at the site. There is no ESL for TPHmo based on the protection of groundwater from TPHmo that might leach from soils. While shallow soil at the site has generally been remediated to the 2013 residential ESL for TPHmo, that ESL is not directly applicable to either the protection of groundwater or future residents and/or construction workers, and the ceiling value will not be applicable following redevelopment because the impacted soil will be beneath the future garage (Figure 13).

#### 6.2 SOIL VAPOR

A summary of soil vapor sample results that are greater than their 2013 ESLs but less than their 2008 ESLs is provided in Table 11. All the historical soil vapor results are presented in Table K-1. A summary of the new ESL exceedances is provided below.

- Benzene The results for benzene in four additional samples now exceed the residential ESL (42  $\mu$ g/m<sup>3</sup>), in addition to the nine sample results that were greater than the 2008 and 2013 ESLs.
- Bromodichloromethane The results for bromodichloromethane in four samples now exceed the residential ESL (33 µg/m<sup>3</sup>). No sample results exceeded the 2008 ESL.
- Chloroform The result for chloroform in one sample now exceeds the residential ESL (230 µg/m<sup>3</sup>). No sample results exceeded the 2008 ESL.
- Ethylbenzene The results for ethylbenzene in one additional sample now exceeds the residential ESL (490 μg/m<sup>3</sup>), in addition to the one sample result that was greater than the 2008 and 2013 ESLs.
- PCE The results for PCE in two additional samples now exceed the residential ESL (210 µg/m<sup>3</sup>), in addition to the 14 sample results that were greater than the 2008 and 2013 ESLs.
- TCE The results for TCE in four additional samples (three primary samples and one duplicate) now exceed the residential ESL (300 μg/m<sup>3</sup>), in addition to the five sample results that were greater than the 2008 and 2013 ESLs.

The exceedances outlined above are from 11 different soil vapor sample locations (Table 11). Forty-two soil vapor samples from 40 soil vapor probes were previously analyzed for VOCs (Table K-1), the results of which have indicated the presence of a plume of VOCs in soil vapor in the northern portion of the site. Based on the presence of this plume, a vapor mitigation system (VMS) is being installed beneath the northern site buildings, as described in the Design Report, and as shown on Figure 13. The soil vapor samples with results now exceeding the 2013 ESLs were collected from locations that are being addressed by the VMS, and are within the footprint of the known vapor plume at the site.

#### 6.3 GROUNDWATER

A summary of grab-groundwater sample results that are greater than their 2013 ESLs but less than their 2008 ESLs is provided in Table 12. As noted above, all the historical groundwater results are presented in Appendix K; however, only the ESL reduction for hexavalent chromium affected the evaluation of previous sample results (Table K-8).

Two samples were previously analyzed for hexavalent chromium; the results from both samples now exceed the 2013 ESL (0.02  $\mu$ g/L). These samples (SB-05 and SB-06) were collected in the southern portion of the site (Figure 13).

It should be noted that the final 2013 ESL for hexavalent chromium is based on the drinking water screening level. The associated ceiling level for hexavalent chromium is 50,000  $\mu$ g/L and the estuary aquatic habitat goal is 11  $\mu$ g/L. While groundwater results at the site have generally been compared to drinking water ESLs, the drinking water ESL is not directly applicable to the site. Groundwater beneath the site is not used as drinking water and is not likely to be used in the future because a) drinking water in the area is obtained from municipal supply wells that do not draw from the groundwater beneath the site, and b) there is a documented plume of VOCs in shallow groundwater in the immediate vicinity of the Site that would preclude the use of groundwater as a drinking water source. Furthermore, institutional controls will be developed in association with the site redevelopment, as outlined in the Design Report, which will prevent the use of groundwater beneath the site as a drinking water source.

#### 7.0 SUMMARY AND CONCLUSIONS

As described in Sections 2 through 5, the following activities related to the site redevelopment were performed from August 2014 through March 2015:

- Monitoring well, piezometer, and soil vapor probe destruction was performed in August and December 2014.
- Site demolition and post-demolition sampling activities were performed in December 2014, identifying six areas where soil removal was needed.
- At these six areas and two additional previously identified areas, soil removal and confirmation sampling were performed in February 2015 and off-site waste disposal was performed in March 2015.
- Additional site demolition and post-demolition sampling activities were performed in March 2015; no additional soil was identified for removal based on the March sampling.

A summary of these activities, conclusions, and recommendations regarding certificates of completion are presented in the following sections.

#### 7.1 SUMMARY

As part of the demolition observation and post-demolition sampling at the site in December 2014 and March 2015, seventy soil samples were collected and analyzed and the results compared to residential ESLs for shallow soil that is a current or potential drinking water resource. This comparison indicated that there were six locations at the site where concentrations of chemicals in soil exceeded ESLs.

Soil at these six locations and two other areas where in-place soil was previously identified greater than ESLs (the former sump and F.E. Pit in Building B) was excavated and confirmation soil samples were collected from the bottoms and sidewalls of each excavation. At several of the excavation areas, the results from one or more excavation confirmation soil samples exceeded ESLs. The excavations were then expanded, and a second set of

confirmation soil samples was collected from the new sidewalls and/or bottom. A total of 527 tons of excavated soil and 800 gallons of equipment rinsate and groundwater from excavation dewatering were profiled and disposed of offsite as nonhazardous waste as part of the soil excavation program.

#### 7.2 CONCLUSIONS

The results of the post-demolition sampling, excavation confirmation sampling, and previous soil sampling indicate that soil at concentrations greater than residential ESLs has been removed from the site, with two exceptions.

First, at the former sump area, one soil sample collected at 11 ft bgs from the bottom of the excavation contained 1,2-DCB at a concentration of 1,200  $\mu$ g/kg, which slightly exceeded the ESL for 1,2-DCB of 1,100  $\mu$ g/kg. No further excavation was performed at this location due to the presence of groundwater that was reducing soil stability. The residual concentration of 1,2-DCB in soil is not considered to pose a risk to future potential residents at the site because a) groundwater is not used for drinking water in the vicinity of the site and concentrations in soil are below the ESL for groundwater that is not a drinking water resource, and b) groundwater monitoring conducted at nearby former monitoring well MW-03 has indicated concentrations of 1,2-DCB are less than the drinking water ESL.

Second, several samples in the vicinity of the former F.E. Pit indicate the presence of TPHd, TPHmo, and/or TPHho at concentrations greater than ESLs. The analytical results for samples collected during and prior to 2013, which had been compared to residential ESLs published in 2008, were compared to ESLs that were updated by the Regional Board in December 2013 (Section 6); the results of the review indicate that some soil results for TPHmo and TPHho exceeded the revised ESL. Additionally, TPHd and TPHmo were detected in one sample beneath one of the 2015 slot excavations at the former F.E. Pit at concentrations greater than ESLs. However, the final ESLs (which are the same for TPHd, TPHmo, and TPHho) are based on the ceiling value (general nuisance concerns), which will not be applicable following redevelopment, as the impacted soil will be beneath the future garage. Concentrations of TPHd, TPHmo, and TPHho are below the residential direct exposure ESLs for these constituents (which also will not be applicable following redevelopment) and also below the ESL for TPHd based on the protection of groundwater from TPHd that might leach from soils. There is no ESL based on the protection of groundwater from TPHmo that might leach from soils.

Additionally, the comparison of the historical data to the new ESLs indicated the results from 11 additional soil vapor probes and two grab groundwater samples exceeded ESLs. The soil vapor samples were from locations within the known soil vapor plume and potential impacts to future occupied buildings that area will be mitigated via a VMS. The groundwater ESLs are

based on the use of groundwater as a drinking water resource, which is not applicable for the site.

Therefore, the results of the post-demolition sampling, excavation confirmation sampling, and ESL review indicate that the environmental conditions at the site are appropriate for site redevelopment, taking into consideration the corrective actions outlined in the FS/CAP and detailed in the Design Report. These corrective actions include a vapor mitigation system beneath buildings in the northern portion of the site to mitigate the potential for vapor intrusion and institutional controls to limit future use of site soil and groundwater.

## 7.2 CERTIFICATES OF COMPLETION

As noted in ACDEH's August 16, 2013 letter and in the FS/CAP, a certificate of completion can be requested following "completion of excavation of impacted soil in the vicinity of the former sump and F.E. Pit and completion of confirmation sampling and any remediation potentially needed at the hydraulic lifts, sump(s), and drain lines at the site." Based on the documentation provided in this Report, the soil removal corrective action is complete. We hereby request a certificate of completion for the soil removal corrective action. Certificates of completion for the VMS and PRB will be requested following completion of those corrective actions and documented effectiveness via performance monitoring.

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### **GROUNDWATER MONITORING WELL CONSTRUCTION DETAILS**

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

							Construction	Informatio	n <sup>1</sup>		
Monitoring Well Type	Monitoring Well ID	Port	Date Installed	Depth Drilled (feet bgs)	Top of Screen (feet bgs)	Bottom of Screen (feet bgs)	Well Depth (feet bgs)	Casing Diameter (inches)	Well Screen Slot Size (inches)	Filter Pack	Date Destroyed
	MW-01		8/30/2012	22	16.2	20.9	21.17	0.75	0.010	#20/40 and 2/12 sand	12/19/2014
Pre-pack	MW-02		8/30/2012	20.2	15.2	19.9	19.92	0.75	0.010	#20/40 and 2/12 sand	12/18/2014
	MW-03		8/31/2012	20	14.4	19.1	19.35	0.75	0.010	#20/40 and 2/12 sand	8/26/2014
		MP-01-1			17.3	17.6		0.375	0.010	#2/12 sand	
	MP-01	MP-01-2	8/29/2012	60	43.2	43.5	59.3	0.375	0.010	#2/12 sand	12/18/2014
		MP-01-3			58.1	58.4		0.375	0.010	#2/12 sand	
		MP-02-1			12.6	12.9		0.375	0.010	#2/12 sand	
	MP-02	MP-02-2	8/30/2012	60	36.4	36.7	59.7	0.375	0.010	#2/12 sand	12/18/2014
CMT		MP-02-3			57.5	57.8		0.375	0.010	#2/12 sand	
multi-port		MP-03-1			14.3	14.6		0.375	0.010	#2/12 sand	
	MP-03	MP-03-2	8/30/2012	60	42.9	43.2	59.8	0.375	0.010	#2/12 sand	12/18/2014
		MP-03-3			57.8	58.1		0.375	0.010	#2/12 sand	
		MP-04-1			15.4	15.7		0.375	0.010	#2/12 sand	
	MP-04	MP-04-2	8/31/2012	60.5	41.4	41.7	60.5	0.375	0.010	#2/12 sand	12/18/2014
		MP-04-3			58.3	58.6		0.375	0.010	#2/12 sand	
	PZ-01		8/21/2014	20.3	15.3	19.7	20.3	2.0	0.010	#2/12 sand	12/19/2014
Piezometer	PZ-02		8/22/2014	20.4	15.5	19.9	20.4	2.0	0.010	#2/12 sand	12/19/2014
	PZ-03		8/22/2014	20.2	15.2	19.6	20.2	2.0	0.010	#2/12 sand	12/19/2014

<u>Note</u>

1. The pre-pack monitoring well and piezometer casing materials are Schedule 40 PVC. The multi-port well casing materials are Solinst 3-channel CMT.

Abbreviations

-- = not applicable

bgs = below ground surface

CMT = continuous multi-channel tubing

## SOIL VAPOR PROBE CONSTRUCTION DETAILS

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

				Constr	uction Infor	mation	
Soil Vapor Type	Monitoring Well ID	Port	Date Installed	Depth Drilled (feet bgs)	Top of Screen (feet bgs)	Bottom of Screen (feet bgs)	Date Destroyed
	SG-13	SG-13A	8/31/2012	8.5	3.5	4.5	8/25/2014
	36-13	SG-13B	0/31/2012	0.0	7.5	8.5	0/25/2014
	SG-14	SG-14A	8/31/2012	8.5	3.5	4.5	8/25/2014
Nested probe	36-14	SG-14B	0/31/2012	0.0	7.5	8.5	0/25/2014
inested probe	SG-15	SG-15A	8/31/2012	8.5	3.5	4.5	9/25/2014
	36-15	SG-15B	0/31/2012	0.0	7.5	8.5	8/25/2014
	SG-16	SG-16A	8/31/2012	8.5	3.5	4.5	8/25/2014
	36-10	SG-16B	0/31/2012	0.0	7.5	8.5	0/20/2014

Abbreviations

-- = not applicable

bgs = below ground surface

## SAMPLE AND ANALYTICAL MATRIX

Former Crown Chevrolet North Parcel

7544 Dublin Boulevard

	Date	Sample Depth			VOCs/		TPHd/			Lead
Sample ID	Collected	(feet bgs)	Sample Type	Description	TPHg	SVOCs	mo	PCBs	Metals <sup>1</sup>	only
Samples Collected wit	hin Footprint o	f Former Bu	ilding B							
SSB1-1.0	12/16/2014	1.0	Post-demolition	Spatial representation samples below	Х	Х	Х		Х	
SSB2-1.0	12/16/2014	1.0	Post-demolition	Building B slab	Х	Х	Х		Х	
SSB3-1.0	12/16/2014	1.0	Post-demolition		Х	Х	Х		Х	
SSB4-1.0	12/17/2014	1.0	Post-demolition		Х	Х	Х		Х	
SSB5-1.5	12/17/2014	1.0	Post-demolition	Sample of greenish-gray soil observed adjacent to Building B footing	Х	Х	Х		Х	
SSB6-1.0	12/22/2014	1.0	Post-demolition	Spatial representation samples below	Х	Х	Х		Х	
SSB7-1.0	12/22/2014	1.0	Post-demolition	Building B slab	Х	Х	Х		Х	
SSB8-2.5	12/30/2014	2.5	Post-demolition	Sample of greenish-gray soil observed adjacent to Building B footing	Х	Х	Х		Х	
HL-1-8.0 <sup>2</sup>	12/29/2014	8.0	Post-demolition (overexcavated)	Sample below hydraulic lift HL-1	Х	Х	Х	Х	Х	
HL1-W-8.0	2/16/2015	8.0	Excavation confirmation	West sidewall sample of HL-1 excavation			Х	Х		
HL1-E-8.0	2/16/2015	8.0	Excavation confirmation	East sidewall sample of HL-1 excavation			Х	Х		
HL1-S-8.0	2/16/2015	8.0	Excavation confirmation	South sidewall sample of HL-1 excavation			Х	Х		
HL1-N-8.0	2/16/2015	8.0	Excavation confirmation	North sidewall sample of HL-1 excavation			Х	Х		
HL1-10	2/16/2015	10.0	Excavation confirmation	Bottom sample of HL-1 excavation			Х	Х		
HL-2-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-2	Х	Х	Х	Х	Х	
HL-3-8.0	12/29/2014	8.0	Post-demolition (overexcavated)	Sample below hydraulic lift HL-3	Х	Х	Х	Х	Х	
HL3-W-8.0	2/16/2015	8.0	Excavation confirmation	West sidewall sample of HL-3 excavation	Х	Х	Х	Х		
HL3-E-8.0	2/16/2015	8.0	Excavation confirmation	East sidewall sample of HL-3 excavation	Х	Х	Х	Х		
HL3-S-8.0	2/16/2015	8.0	Excavation confirmation (overexcavated)	South sidewall sample of HL-3 excavation	Х	Х	Х	Х		
HL3-SW-10.0 <sup>3</sup>	2/19/2015, 2/20/2015	10.0	Extended excavation confirmation	Southwest sidewall sample of HL-3 after additional excavation	Х	Х	Х	Х		
HL3-N-8.0	2/16/2015	8.0	Excavation confirmation	North sidewall sample of HL-3 excavation	Х	Х	Х	Х		
HL3-10	2/16/2015	10.0	Extended excavation (overexcavated)	Bottom sample of HL-3 excavation	Х	Х	Х	Х		
HL3-12.8 <sup>3</sup>	2/19/2015, 2/20/2015	12.8	Extended excavation confirmation	Bottom sample below original HL3-10 location after additional excavation	Х	Х	Х	Х		
HL3-15.0 <sup>3</sup>	2/19/2015, 2/20/2015	15.0	Extended excavation confirmation	Bottom sample at south side of HL-3 after additional excavation	Х	Х	Х	Х		

## SAMPLE AND ANALYTICAL MATRIX

Former Crown Chevrolet North Parcel

7544 Dublin Boulevard

	Date	Sample Depth			VOCs/		TPHd/			Lead
Sample ID	Collected	(feet bgs)	Sample Type	Description		SVOCs		PCBs	Metals <sup>1</sup>	only
Samples Collected wit	hin Footprint o	f Former Bu	ilding B (cont'd)	•						
HL-4-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-4	Х	Х	Х	Х	Х	
HL-5-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-5	Х	Х	Х	Х	Х	
HL-6-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-6	Х	Х	Х	Х	Х	
			(overexcavated)							
HL6-W-8.0	2/16/2015	8.0	Excavation confirmation	West sidewall sample of HL-6 excavation			Х			
HL6-E-8.0	2/16/2015	8.0	Excavation confirmation	East sidewall sample of HL-6 excavation			Х			
HL6-S-8.0	2/16/2015	8.0	Excavation confirmation	South sidewall sample of HL-6 excavation			Х			
HL6-N-8.0	2/16/2015	8.0	Excavation confirmation	North sidewall sample of HL-6 excavation			Х			
			(overexcavated)							
HL6-N1-8.0	2/19/2015	8.0	Extended excavation	North sidewall sample of HL-6 after additional			Х			
			confirmation	excavation						
HL6-10-8.0	2/16/2015	10.0	Excavation confirmation	Bottom sample of HL-6 excavation			Х			
HL-7-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-7	Х	Х	Х	Х	Х	
HL-8-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-8	Х	Х	Х	Х	Х	
			(overexcavated)							
HL8-W-8.0	2/16/2015	8.0	Excavation confirmation	West sidewall sample of HL-8 excavation			Х			
			(overexcavated)							
HL8-W1-8.0	2/19/2015	8.0	Extended excavation	West sidewall sample of HL-8 after additional			Х			
			confirmation	excavation						
HL8-E-8.0	2/16/2015	8.0	Excavation confirmation	East sidewall sample of HL-8 excavation			Х			
HL8-S-4.0	2/16/2015	4.0	Excavation confirmation	South sidewall sample of HL-8 excavation at			Х			
				4 feet bgs						
HL8-S-8.0	2/16/2015	8.0	Excavation confirmation	South sidewall sample of HL-8 excavation at			Х			
				8 feet bgs						
HL8-N-8.0	2/16/2015	8.0	Excavation confirmation	North sidewall sample of HL-8 excavation			Х			
HL8-10	2/16/2015	10.0	Excavation confirmation	Bottom sample of HL-8 excavation			Х			
HL-9-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-9	Х	Х	Х	Х	Х	
HL-10-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-10	Х	Х	Х	Х	Х	
HL-11-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-11	Х	Х	Х	Х	Х	
HL-12-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-12	Х	Х	Х	Х	Х	
HL-13-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-13	Х	Х	Х	Х	Х	

## SAMPLE AND ANALYTICAL MATRIX

Former Crown Chevrolet North Parcel

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Sample ID	Date Collected	Sample Depth (feet bgs)	Sample Type	Description	VOCs/ TPHg	SVOCs	TPHd/ mo	PCBs	Metals <sup>1</sup>	Lead only
Samples Collected wit	hin Footprint o	f Former Bui	ilding B (cont'd)							
HL-14-8.0	12/29/2014	8.0	Post-demolition	Sample below hydraulic lift HL-14	Х	Х	Х	Х	Х	
DL-2-2.5	12/30/2014	2.5	Post-demolition	Samples below drain line in Building B; each	Х	Х	Х		Х	
DL-3-2.75	12/30/2014	2.8	Post-demolition	sequential number is 20 feet west, along the	Х	Х	Х		Х	
DL-4-3.0	12/30/2014	3.0	Post-demolition	drain line, from the previous sample	Х	Х	Х		Х	
DL-5-3.25	12/30/2014	3.3	Post-demolition		Х	Х	Х		Х	
DL-6-3.5	12/30/2014	3.5	Post-demolition		Х	Х	Х		Х	
DL-7-3.75	12/30/2014	3.8	Post-demolition		Х	Х	Х		Х	
DL-8-4.0	12/30/2014	4.0	Post-demolition		Х	Х	Х		Х	
DL9-5.0	3/30/2015	5.0	Post-demolition		Х	Х	Х		Х	
BBFS1-2.5	1/6/2015	2.5	Post-demolition	Sample below Building B former sump	Х	Х	Х		Х	
Confirmation Samples	Collected at th	e Former Fr	ont End Alignment Pit in I	Building B						
FEPIT-EXS-11	2/17/2015	6.0	Excavation confirmation	Sidewall sample of south slot trench	Х		Х			
FEPIT-EXB-12	2/17/2015	12.0	Excavation confirmation	Bottom sample of south slot trench	Х		Х			
FEPIT-EXS-13	2/17/2015	6.0	Excavation confirmation	Sidewall sample of east slot trench	Х		Х			
FEPIT-EXB-14	2/17/2015	12.0	Excavation confirmation	Bottom sample of east slot trench	Х		Х			
FEPIT-EXS-15	2/17/2015	6.0	Excavation confirmation	Sidewall sample of north slot trench	Х		Х			
FEPIT-EXB-16	2/17/2015	12.0	Excavation confirmation	Bottom sample of north slot trench	Х		Х			
Confirmation Samples	Collected at th	e Former Su	Imp in Building B							
SUMP-EXS-9	2/18/2015	8.0	Excavation confirmation (overexcavated)	Sidewall sample of first south slot trench	Х		Х			
SUMP-EXS-10	2/18/2015	8.0	Excavation confirmation	Sidewall sample of east slot trench	Х		Х			
SUMP-EXB-11	2/18/2015	14.0	Excavation confirmation	Bottom sample of east slot trench	Х		Х			
SUMP-EXS-12	2/18/2015	4.0	Excavation confirmation	Sidewall sample of first north slot trench	Х		Х			
			(overexcavated)	(shallower)						
SUMP-EXS-13	2/18/2015	10.0	Excavation confirmation	Sidewall sample of north slot trench (deeper)	Х		Х			
SUMP-EXB-14	2/18/2015	15.5	Excavation confirmation	Bottom sample of north slot trench	Х		Х			
SUMP-EXB-15	2/18/2015	15.0	Excavation confirmation	Bottom sample of south slot trench	Х		Х			
SUMP-EXS-17	2/20/2015	8.0	Extended excavation	Sidewall sample of additional south slot	Х		Х			
			confirmation	trench						1
SUMP-EXS-18	2/20/2015	4.0	Extended excavation	Sidewall sample of additional north slot	Х		Х			
			confirmation	trench						

## SAMPLE AND ANALYTICAL MATRIX

Former Crown Chevrolet North Parcel

7544 Dublin Boulevard

	Date	Sample Depth			VOCs/		TPHd/			Lead
Sample ID	Collected	(feet bgs)	Sample Type	Description	TPHg	SVOCs	mo	PCBs	Metals <sup>1</sup>	only
Samples Collected wit	hin Footprint o	f Former Bui	ilding C							
SSC1-1.0	12/19/2014	1.0	Post-demolition	Spatial representation samples below	Х	Х	Х		Х	
SSC2-1.0	12/19/2014	1.0	Post-demolition	Building C slab	Х	Х	Х		Х	
SSC3-1.0	12/19/2014	1.0	Post-demolition	_	Х	Х	Х		Х	
SSC4-1.0	12/23/2014	1.0	Post-demolition		Х	Х	Х		Х	
SSC5-1.0	12/23/2014	1.0	Post-demolition		Х	Х	Х		Х	
SSC6-1.0	12/23/2014	1.0	Post-demolition		Х	Х	Х		Х	
BCFS1-2.5	12/19/2014	2.5	Post-demolition (overexcavated)	Sample beneath Building C former sump	Х	Х	Х		Х	
BCFS1-W-2.5	2/16/2015	2.5	Excavation confirmation	West sidewall sample of BCFS1 excavation		х	Х			Х
BCFS1-E-2.5	2/16/2015	2.5	Excavation confirmation	East sidewall sample of BCFS1 excavation		X	X			
	_, ,		(overexcavated)							Х
BCFS1-E1-2.5	2/25/2015	2.5	Extended excavation	Second east sidewall sample of BCFS1 after		Х				
			confirmation	additional excavation						
BCFS1-S-2.5	2/16/2015	2.5	Excavation confirmation	South sidewall sample of BCFS1 excavation		Х	Х			Х
BCFS1-N-2.5	2/16/2015	2.5	Excavation confirmation	North sidewall sample of BCFS1 excavation		Х	Х			Х
BCFS1-4.5	2/16/2015	4.5	Excavation confirmation	Bottom sample of BCFS1 excavation		Х	Х			Х
BCFS2-2.5	1/6/2015	2.5	Post-demolition	Sample below Building C suspected former sump	Х	Х	Х		Х	
BCDL1-1.0	12/30/2014	1.0	Post-demolition	Samples below drain line in Building C; each	Х	Х	Х		Х	
BCDL2-1.0	12/30/2014	1.0	Post-demolition	sequential number is 20 feet east along the	Х	Х	Х		Х	
BCDL3-1.0	12/30/2014	1.0	Post-demolition	drain line, from the previous sample	Х	Х	Х		Х	
BCDL4-2.5	3/30/2015	2.5	Post-demolition		Х	Х	Х		Х	
BCDL5-2.8	3/30/2015	2.8	Post-demolition		Х	Х	Х		Х	
Samples Collected wit	hin Footprint o	f Former Bu	lding D							
SSD1-1.5	12/15/2014	1.5	Post-demolition	Sample of greenish-gray soil observed adjacent to Building D footing	Х	Х	Х		Х	

## SAMPLE AND ANALYTICAL MATRIX

Former Crown Chevrolet North Parcel

7544 Dublin Boulevard

	Dete	Sample			N00-1		<b>TDU</b> .1/			
Sample ID	Date Collected	Depth (feet bgs)	Sample Type	Description	VOCs/	SVOCs	TPHd/ mo	PCBs	Metals <sup>1</sup>	Lead only
Samples Collected at (		, <b>,</b>	oumple Type	Decemption	nng	01000	me		metalo	<u> </u>
CW-S-3.5	12/16/2014	3.5	Post-demolition	Sample collected below car wash sump	Х	Х	Х	1	Х	
WOTP1-1.25	12/30/2014	1.3	Post-demolition	Sample beneath waste oil tank piping	X	X	X		X	
W01111.20	12/00/2011	1.0	(overexcavated)	Campio Schouth Wable on tank piping	~~~~	~~~	~		~	
WOTP1-W-1.25	2/16/2015	1.25	Excavation confirmation	West sidewall sample of WOTP1 excavation			X <sup>4</sup>			
WOTP1-E-1.25	2/16/2015	1.25	Excavation confirmation	East sidewall sample of WOTP1 excavation			X <sup>4</sup>			
	1, 0, 10, 10		(overexcavated)				^			
WOTP1-E1-1.25	2/19/2015	1.3	Excavation confirmation	Second east sidewall sample of WOTP1			Х			
		_	(extended)	after additional excavation						
WOTP1-S-1.25	2/16/2015	1.25	Excavation confirmation	South sidewall sample of WOTP1 excavation			X <sup>4</sup>			
WOTP1-N-1.25	2/16/2015	1.25	Excavation confirmation	North sidewall sample of WOTP1 excavation			X <sup>4</sup>			
WOTP1-3.25	2/16/2015	3.25	Excavation confirmation	Bottom sample of WOTP1 excavation			X <sup>4</sup>			
WOTP2-2.5	12/30/2014	2.5	Post-demolition	Sample beneath waste oil tank piping	Х	Х	Х		Х	
WOTP3-4.0	12/30/2014	4.0	Post-demolition	Sample beneath waste oil tank piping	Х	Х	Х		Х	
Sanitary Sewer Line Sa	amples			· · · ·						
SL1-6.2	3/25/2015	6.2	Post-demolition	Samples below sanitary sewer line; each	Х	Х	Х		Х	
SL2-5.8	3/25/2015	5.8	Post-demolition	sequential number is 20 feet south, along the	Х	Х	Х		Х	
SL3-6.2	3/25/2015	6.2	Post-demolition	sewer line, from the previous sample	Х	Х	Х		Х	
SL4-6.2	3/25/2015	6.2	Post-demolition		Х	Х	Х		Х	
SL5-6.1	3/25/2015	6.1	Post-demolition		Х	Х	Х		Х	
SL6-6.0	3/25/2015	6.0	Post-demolition		Х	Х	Х		Х	
SL7-6.5	3/25/2015	6.5	Post-demolition		Х	Х	Х		Х	
SL8-6.4	3/25/2015	6.4	Post-demolition		Х	Х	Х		Х	
SL9-6.5	3/25/2015	6.5	Post-demolition		Х	Х	Х		Х	
SL10-6.8	3/25/2015	6.8	Post-demolition		Х	Х	Х		Х	
SL11-6.5	3/25/2015	6.5	Post-demolition		Х	Х	Х		Х	
SL12-6.3	3/25/2015	6.3	Post-demolition		Х	Х	Х		Х	
SL13-5.5	3/30/2015	5.5	Post-demolition		Х	Х	Х		Х	
SL14-5.3	3/30/2015	5.3	Post-demolition		Х	Х	Х		Х	
SL15-5.3	3/30/2015	5.3	Post-demolition		Х	Х	Х		Х	

### SAMPLE AND ANALYTICAL MATRIX

Former Crown Chevrolet North Parcel

7544 Dublin Boulevard

#### Dublin, California

Sample ID	Date Collected	Sample Depth (feet bgs)	Sample Type	Description	VOCs/ TPHg	SVOCs	TPHd/ mo		Metals <sup>1</sup>	Lead only
Sanitary Sewer Line S	Samples (cont'd			· · · · ·						
SL16-4.7	3/30/2015	4.7	Post-demolition	Samples below sanitary sewer line; each	Х	Х	Х		Х	
SL17-4.8	3/30/2015	4.8	Post-demolition	sequential number is 20 feet south, along the	Х	Х	Х		Х	
SL18-4.8	3/30/2015	4.8	Post-demolition	sewer line, from the previous sample	Х	Х	Х		Х	
SL19-4.2	3/30/2015	4.2	Post-demolition		Х	Х	Х		Х	
SL20-3.7	3/30/2015	3.7	Post-demolition		Х	Х	Х		Х	
SL21-3.0	3/30/2015	3.0	Post-demolition		Х	Х	Х		Х	
Overburden Soil Sam	ples	• • •		·		•	•	•	•	
OB1-1-4 <sup>5</sup>	2/25/2015		Overburden soil	Samples of overburden soil to be used as	Х	Х	Х	Х	Х	
OB2-1-4 <sup>5</sup>	2/25/2015		Overburden soil	excavation backfill	Х	Х	Х	Х	Х	

Notes

1. Metals analysis included California LUFT-5 Metals (cadmium, chromium, lead, nickel, and zinc), except as noted.

- 2. Shading indicates that the sample was collected from soil that was subsequently removed during excavation.
- 3. Samples collected on February 19, 2015 were analyzed for SVOCs, TPHd, TPHmo and PCBs. Additional samples were collected from same locations on February 20, 2015 and analyzed for VOCs.
- 4. These samples were analyzed for TPHmo only.
- 5. The overburden soil samples were analyzed for California Title 22 Metals and mercury.

#### **Abbreviations**

-- = not applicable

bgs = below ground surface

EPA = Environmental Protection Agency

LUFT = Leaking Underground Fuel Tank

PCBs = polychlorinated biphenyls

SVOCs = semivolatile organic compounds

TPHd = total petroleum hydrocarbons quantified as diesel

TPHg = total petroleum hydrocarbons quantified as gasoline

TPHmo = total petroleum hydrocarbons quantified as motor oil

VOCs = volatile organic compounds

## VOLATILE ORGANIC COMPOUNDS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

	-		-	-		-	-	Results lep		crograms pe	i Kilograffi	(µg/кg)	-					-		
		Sample					2-	1,2-	1,3-	1,4-			n-				1,2,4-	1,3,5-		All
	Date	Depth		Bromo-	n-Butyl-	Chloro-	Chloro-	Dichloro-	Dichloro-	Dichloro-	Ethyl-		Propyl-	Tetrachloro-		Trichloro-	Trimethyl-	Trimethyl-	Xylenes,	Other
Sample ID	Collected	(feet bgs)	Acetone	benzene	benzene	benzene	toluene	benzene	benzene	benzene	benzene	Naphthalene	benzene	ethene	Toluene	ethene	benzene	benzene	Total	VOCs <sup>2</sup>
Samples Collected with	ithin Footprint	of Former E	Building B		•	-	-	-		•		•	-	-		-	-	-		
SSB1-1.0	12/16/2014	1.0	75	<4.4 <sup>3</sup>	<4.4	<4.4	<4.4	36	<4.4	<4.4	<4.4	<8.7	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<8.7	ND
SSB2-1.0	12/16/2014	1.0	<37	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<7.3	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<7.3	ND
SSB3-1.0	12/16/2014	1.0	<41	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.2	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.2	ND
SSB4-1.0	12/17/2014	1.0	59	<4	<4	<4	<4	<4	<4	<4	<4	<8	<4	<4	<4	<4	<4	<4	<8	ND
SSB5-1.5	12/17/2014	1.5	<41	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.3	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.3	ND
SSB6-1.0	12/22/2014	1.0	<51	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<10	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<10	ND
SSB7-1.0	12/22/2014	1.0	<39	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.8	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.8	ND
SSB8-2.5	12/30/2014	2.5	<40	<4	<4	<4	<4	<4	<4	<4	<4	<7.9	<4	<4	<4	<4	<4	<4	<7.9	ND
HL-1-8.0 <sup>4</sup>	12/29/2014	8.0	<42	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.3	<4.2	7.1 J <sup>5</sup>	<4.2	<4.2	<4.2	<4.2	<8.3	ND
HL-2-8.0	12/29/2014	8.0	<37	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<7.4	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<7.4	ND
HL-3-8.0	12/29/2014	8.0	<4,100	<410	<410	<410	<410	<410	<410	<410	<410	<820	<410	590 J <sup>6</sup>	3,000	<410	<410	<410	<820	ND
HL3-W-8.0	2/16/2015	8.0	<37	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<7.4	<3.7	<3.7	<3.7	<3.7	<3.7	<3.7	<7.4	ND
HL3-E-8.0	2/16/2015	8.0	<39	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.9	ND
HL3-S-8.0	2/17/2015	8.0	<42	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.3	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.3	ND
HL3-SW-10.0	2/20/2015	10.0	<43	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<8.6	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<8.6	ND
HL3-N-8.0	2/16/2015	8.0	<39	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.7	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.7	ND
HL3-10	2/17/2015	10.0	190	<4.1	6.4	<4.1	<4.1	<4.1	<4.1	<4.1	5.2	54	4.7	<4.1	<4.1	<4.1	53	14	34	ND
HL3-12.8	2/20/2015	12.8	<42	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	<4.2	4.4	<4.2	<4.2	<4.2	<4.2	<8.4	ND
HL3-15.0	2/20/2015	15.0	<40	<4	<4	<4	<4	<4	<4	<4	<4	<8	<4	<4	<4	<4	<4	<4	<8	ND
HL-4-8.0	12/29/2014	8.0	<47	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<9.3	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<9.3	ND
HL-5-8.0	12/29/2014	8.0	<39	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.7	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.7	ND
HL-6-8.0	12/29/2014	8.0	<40	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<7.1	<3.5	<3.5	<3.5	<3.5	<3.5	<3.5	<7.1	ND
HL-7-8.0	12/29/2014	8.0	<36	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<7.2	<3.6	6.8 J	<3.6	<3.6	<3.6	<3.6	<7.2	ND
HL-8-8.0	12/29/2014	8.0	<38	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<7.5	<3.8	7.5 J	<3.8	<3.8	<3.8	<3.8	<7.5	ND
HL-9-8.0	12/29/2014	8.0	<39	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.7	<3.9	11 J	<3.9	<3.9	<3.9	<3.9	<7.7	ND
HL-10-8.0	12/29/2014	8.0	61	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.7	<3.9	5.5 J	<3.9	<3.9	<3.9	<3.9	<7.7	ND
HL-11-8.0	12/29/2014	8.0	<39	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.9	ND
HL-12-8.0	12/29/2014	8.0	<40	<4	<4	<4	<4	<4	<4	<4	<4	<8	<4	<4	<4	<4	<4	<4	<8	ND
HL-13-8.0	12/29/2014	8.0	<39	<3.9	<3.9	20	<3.9	18	<3.9	<3.9	<3.9	<7.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.9	ND
HL-14-8.0	12/29/2014	8.0	<40	<4	<4	<4	<4	<4	<4	<4	<4	<7.9	<4	<4	<4	<4	<4	<4	<7.9	ND
DL-2-2.5	12/30/2014	2.3	<43	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<8.5	<4.3	<4.3 <5.1	<4.3	<4.3	<4.3	<4.3	<8.5	ND
DL-3-2.75	12/30/2014	2.8	<51	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<10	<5.1		<5.1	<5.1	<5.1	<5.1	<10	ND
DL-4-3.0	12/30/2014	3.0	<50	<5	<5	<5	<5	<5	<5	<5	<5	<9.9	<5	<5	<5	<5	<5	<5	<9.9	ND
DL-5-3.25	12/30/2014	3.3	<46	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<9.1	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<9.1	ND
DL-6-3.5	12/30/2014	3.5	<43	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<8.5	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<8.5	ND
DL-7-3.75	12/30/2014	3.8	110	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<9.4	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<9.4	ND
DL-8-4.0	12/30/2014	4.0	<39	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.9	ND
DL9-5.0	3/30/2015	5.0	<40	<4	<4	<4	<4	<4	<4	<4	<4	<8.1	<4	<4	<4	<4	<4	<4	<8.1	ND
BBFS1-2.5	1/6/2015	2.5	<42	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	ND

## VOLATILE ORGANIC COMPOUNDS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

				l l	l l					rograms pe	ranogram	µ9/119/	-							
Sample ID	Date Collected	Sample Depth (feet bgs)	Acetone	Bromo- benzene	n-Butyl- benzene				1,3- Dichloro- benzene		Ethyl- benzene	Naphthalene	n- Propyl- benzene	Tetrachloro- ethene	Toluene	Trichloro- ethene	1,2,4- Trimethyl- benzene	1,3,5- Trimethyl- benzene	Xylenes, Total	All Other VOCs <sup>2</sup>
Confirmation Samples	s Collected at t	he Former	Front End	Alignment	t Pit in Buil	lding B														
FEPIT-EXS-11	2/17/2015	6.0	<50	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<10	ND
FEPIT-EXB-12	2/17/2015	12.0	<50	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<10	ND
FEPIT-EXS-13	2/17/2015	6.0	<44	5.4	<4.4	4.7	20	250	36	170	<4.4	<8.8	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<8.8	ND
FEPIT-EXB-14	2/17/2015	12.0	<41	<4.1	<4.1	6.3	<4.1	45	5	26	<4.1	<8.2	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.2	ND
FEPIT-EXS-15	2/17/2015	6.0	<41	<4.1	<4.1	<4.1	<4.1	5.4	<4.1	<4.1	<4.1	<8.2	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.2	ND
FEPIT-EXB-16	2/17/2015	12.0	70	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.8	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.8	ND
Confirmation Samples	s Collected at t	he Former	Sump in B	Building B																
SUMP-EXS-9	2/18/2015	8.0	<41	<4.1	<4.1	1,400	<4.1	4,400	<4.1	24	<4.1	<8.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.1	ND
SUMP-EXS-10	2/18/2015	8.0	<40	<4	<4	<4	<4	8.9	<4	<4	<4	<8	<4	<4	<4	<4	<4	<4	<8	ND
SUMP-EXB-11	2/18/2015	14.0	<42	<4.2	<4.2	240	<4.2	1,200	<4.2	9.1	<4.2	<8.4	<4.2	56	<4.2	<4.2	<4.2	<4.2	<8.4	ND
SUMP-EXS-12	2/18/2015	4.0	<38	<3.8	<3.8	600	<3.8	2,200	<3.8	17	<3.8	<7.6	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<7.6	ND
SUMP-EXS-13	2/18/2015	10.0	<42	<4.2	<4.2	140	<4.2	240	<4.2	<4.2	<4.2	<8.3	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.3	ND
SUMP-EXB-14	2/18/2015	15.5	<45	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<8.9	<4.5	49	<4.5	<4.5	<4.5	<4.5	<8.9	ND
SUMP-EXB-15	2/18/2015	15.0	<47	<4.7	<4.7	10	<4.7	9.1	<4.7	<4.7	<4.7	<9.3	<4.7	48	<4.7	<4.7	<4.7	<4.7	<9.3	ND
SUMP-EXS-17	2/20/2015	8.0	<40	<4	<4	97	<4	170	<4	4.3	<4	<8.1	<4	<4	<4	<4	<4	<4	<8.1	ND
SUMP-EXS-18	2/20/2015	4.0	<40	<3.9	<3.9	36	<3.9	50	<3.9	<3.9	<3.9	<7.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.9	ND
Samples Collected with			U U		. –	. –	. –			· - 1			. –	·						
SSC1-1.0	12/19/2014	1.0	<47	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<9.4	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<9.4	ND
SSC2-1.0	12/19/2014	1.0	<46	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<9.1	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<9.1	ND
SSC3-1.0	12/19/2014	1.0	<44	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<8.9	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<8.9	ND
SSC4-1.0	12/23/2014	1.0	<46	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<9.2	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<9.2	ND
SSC5-1.0	12/23/2014	1.0	50	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<8.8	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<8.8	ND
SSC6-1.0	12/23/2014	1.0 2.5	<39	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.7	<3.9	<3.9	<3.9	<3.9	<3.9 <3.9	<3.9	<7.7	ND
BCFS1-2.5 BCFS2-2.5	12/19/2014 1/6/2015	2.5	<39 <40	<3.9	<3.9 <4	<3.9	<3.9 <4	<3.9	<3.9	<3.9	<3.9	<7.8 <8.1	<3.9	<3.9 <4	<3.9	<3.9		<3.9	<7.8 <8.1	ND ND
BCF32-2.5 BCDL1-1.0	12/30/2013	1.0	<40 <45	<4 <4.5	<4 <4.5	<4 <4.5	<4 <4.5	<4 <4.5	<4 <4.5	<4 <4.5	<4 <4.5	<0.1	<4 <4.5	<4.5	<4 <4.5	<4 <4.5	<4 <4.5	<4 <4.5	<8.9	ND
BCDL1-1.0 BCDL2-1.0	12/30/2014	1.0	<43 <48	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.5	<4.5	<0.9	<4.5	<4.5	<4.3	<4.8	<4.3	<4.3	< 9.7	ND
BCDL2-1.0 BCDL3-1.0	12/30/2014	1.0	<40 95	<4.0 <4.2	<4.0 <4.2	<4.0	<4.0 <4.2	<4.0	<4.0	<4.0	<4.0 <4.2	<8.4	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	< 8.4	ND
BCDL3-1.0 BCDL4-2.5	3/30/2015	2.5	<38	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<7.5	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<7.5	ND
BCDL5-2.8	3/30/2015	2.8	<39	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.8	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.8	ND
Samples Collected wit				10.0	10.0	10.0	10.0	<b>\0.0</b>		<b>NO.0</b>	10.0	\$1.0	10.0	(0.0	<b>NO.0</b>	10.0	30.0	<b>\0.0</b>	\$1.0	
SSD1-1.5	12/15/2014	1.5	<38	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<7.6	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<7.6	ND
Samples Collected at																				
CW-S-3.5	12/16/2014	3.5	54	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<7.2	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<7.2	ND
WOTP1-1.25	12/30/2014	1.3	<57	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<11	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<11	ND
WOTP2-2.5	12/30/2014	2.5	<44	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<8.9	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<8.9	ND
WOTP3-4.0	12/30/2014	4.0	<42	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	ND
Sanitary Sewer Line S																				-
SL1-6.2	3/25/2015	6.2	<39	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.7	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.7	ND
SL2-5.8	3/25/2015	5.8	<42	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	ND
J 0.0	0,20,2010	0.0	- 16	- ··· <del>-</del>	- ··· <del>/</del>	<b>E</b>	- 11 <b>-</b>	- 116		<u>C</u>	- 116		1.12	- 116	- 116	- 114	- 116		-0.1	

## VOLATILE ORGANIC COMPOUNDS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

Results re	ported in	micrograms	per kilogram	n (ua/ka)

	Date	Sample Depth		Bromo-	n-Butyl-	Chloro-	2- Chloro-	1,2- Dichloro-	1,3- Dichloro-	1,4- Dichloro-	Ethyl-		n- Propyl-	Tetrachloro-		Trichloro-	1,2,4- Trimethyl-	1,3,5- Trimethyl-	Xylenes,	All Other
Sample ID	Collected	(feet bgs)	Acetone	benzene	benzene	benzene	toluene	benzene	benzene	benzene	benzene	Naphthalene	benzene	ethene	Toluene	ethene	benzene	benzene	Total	VOCs <sup>2</sup>
SL3-6.2	3/25/2015	6.2	<38	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<7.6	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<7.6	ND
SL4-6.2	3/25/2015	6.2	<39	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.7	<3.9	<3.9	<3.9	<3.9	<3.9	<3.9	<7.7	ND
Sanitary Sewer Line S	amples (cont'o	d)																		
SL5-6.1	3/25/2015	6.1	<44	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<8.8	<4.4	8.4	<4.4	<4.4	<4.4	<4.4	<8.8	ND
SL6-6.0	3/25/2015	6.0	<43	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<8.6	<4.3	6.9	<4.3	<4.3	<4.3	<4.3	<8.6	ND
SL7-6.5	3/25/2015	6.5	<43	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<8.6	<4.3	19	<4.3	<4.3	<4.3	<4.3	<8.6	ND
SL8-6.4	3/25/2015	6.4	<36	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<7.2	<3.6	9.2	<3.6	4.1	<3.6	<3.6	<7.2	ND
SL9-6.5	3/25/2015	6.5	<51	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<5.1	<10	<5.1	6.6	<5.1	7	<5.1	<5.1	<10	ND
SL10-6.8	3/25/2015	6.8	<47	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<9.5	<4.7	<4.7	<4.7	7.2	<4.7	<4.7	<9.5	ND
SL11-6.5	3/25/2015	6.5	<42	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.3	<4.2	4.4	<4.2	<4.2	<4.2	<4.2	<8.3	ND
SL12-6.3	3/25/2015	6.3	<41	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.2	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.2	ND
SL13-5.5	3/30/2015	5.5	<41	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.1	ND
SL14-5.3	3/30/2015	5.3	<48	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<9.6	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<9.6	ND
SL15-5.3	3/30/2015	5.3	<36	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<7.2	<3.6	<3.6	<3.6	<3.6	<3.6	<3.6	<7.2	ND
SL16-4.7	3/30/2015	4.7	<60	<6	<6	<6	<6	<6	<6	<6	<6	<12	<6	<6	<6	<6	<6	<6	<12	ND
SL17-4.8	3/30/2015	4.8	<49	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<9.7	<4.9	<4.9	<4.9	<4.9	<4.9	<4.9	<9.7	ND
SL18-4.8	3/30/2015	4.8	<42	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	ND
SL19-4.2	3/30/2015	4.2	<41	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.2	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<8.2	ND
SL20-3.7	3/30/2015	3.7	<42	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	ND
SL21-3.0	3/30/2015	3.0	<42	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<8.4	ND
Overburden Soil Samp	oles																			
OB1-1-4	2/25/2015		<50	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5	<5	<5	<5	<5	<5	<10	ND
OB2-1-4	2/25/2015		<47	<4.7	<4.7	5.4	<4.7	<4.7	<4.7	<4.7	<4.7	<9.5	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<9.5	ND
Residential ESL <sup>7</sup>			500	NL	NL	1,500	NL	1,100	7,400	590	3,300	1,200	NL	550	2,900	460	NL	NL	2,300	

### VOLATILE ORGANIC COMPOUNDS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

Results reported in micrograms per kilogram (µg/kg)

#### Notes

- 1. Samples were analyzed for VOCs using U.S. EPA Method 8260B.
- 2. No other VOCs were detected. The other VOCs analyzed include benzene, bromochloromethane, bromodichloromethane, bromoform, bromomethane, 2-butanone, sec-butylbenzene, tert-butylbenzene, carbon disulfide, carbon tetrachloride, chloroethane, chloroform, chloromethane, 1,2-dibromo-3-chloropropane, 4-chlorotoluene, dibromochloromethane, 1,2-dibromoethane, dichlorodifluoromethane, 1,1-dichloroethane, 1,2-dichloropthane, 1,1-dichloropthene, cis-1,2-dichloropthene, trans-1,2-dichloropthene, 1,2-dichloropthene, 2,2-dichloropthene, 1,1-dichloropthene, cis-1,3-dichloropthene, trans-1,3-dichloropthene, 1,2-dichloropthene, 2,2-dichloropthene, 2,2-dichloropthene, cis-1,3-dichloropthene, trans-1,3-dichloropthene, cis-1,3-dichloropthene, trans-1,3-dichloropthene, 1,2-dichloropthene, 2,2-dichloropthene, 2,2-dichloropthene, cis-1,3-dichloropthene, trans-1,3-dichloropthene, cis-1,3-dichloropthene, cis-1,3-dichloro hexachlorobutadiene, 2-hexanone, isopropylbenzene, 4-isopropyltoluene, methyl tert-butyl ether, methylene chloride, 4-methyl-2-pentanone, styrene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, toluene, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethane, trichlorofluoromethane, 1,2,3-trichloropropane, 1,1,2-trichloro-1,2,2-trifluoroethane, vinyl acetate and vinyl chloride.
- 3. "< " indicates the compound was not detected at a concentration at or greater than the laboratory reporting limit shown.
- 4. Shading indicates that the sample was collected from soil that was subsequently removed during excavation.
- 5. "J" indicates the analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- 6. Results greater than ESLs are shown in **bold**.
- 7. California Regional Water Quality Control Board, San Francisco Region, 2013, Environmental Screening Levels, Table A. Shallow Soil Screening Level (<3m bgs), Residential Land Use (groundwater is a current or potential drinking water resource), December.

#### Abbreviations

- -- = not applicable
- µg/kg = micrograms per kilogram
- bgs = below ground surface
- ESL = Environmental Screening Level
- U.S. EPA = U.S. Environmental Protection Agency
- ND = not detected above laboratory reporting limit

NL = not listed

VOCs = volatile organic compounds

# TOTAL PETROLEUM HYDROCARBONS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

	Date	Sample Depth			
Sample ID	Collected	(feet bgs)	TPHg	TPHd	TPHmo
Samples Collected with	nin Footprint of	Former Building	B	•	
SSB1-1.0	12/16/2014	1.0	<0.220 <sup>2</sup>	23	<50
SSB2-1.0	12/16/2014	1.0	<0.180	2.2	<50
SSB3-1.0	12/16/2014	1.0	<0.210	<0.98	<49
SSB4-1.0	12/17/2014	1.0	<0.200	4.8	<49
SSB5-1.5	12/17/2014	1.0	<0.210	2.4	<50
SSB6-1.0	12/22/2014	1.0	<0.260	<1.0	<49
SSB7-1.0	12/22/2014	1.0	<0.190	2.1	<50
SSB8-2.5	12/30/2014	2.5	<0.200	10	<49
HL-1-8.0 <sup>3</sup>	12/29/2014	8.0	<0.210	1,600 <sup>4</sup>	4,700
HL1-W-8.0	2/16/2015	8.0	NA	<0.99	<50
HL1-E-8.0	2/16/2015	8.0	NA	<0.99	<49
HL1-S-8.0	2/16/2015	8.0	NA	<1	<50
HL1-N-8.0	2/16/2015	8.0	NA	< 0.99	<50
HL1-10	2/16/2015	10.0	NA	<0.99	<50
HL-2-8.0	12/29/2014	8.0	<0.180	<0.99	<49
HL-3-8.0	12/29/2014	8.0	40	7,000	20,000
HL3-W-8.0	2/16/2015	8.0	NA	<0.99	<50
HL3-E-8.0	2/16/2015	8.0	NA	<0.99	<50
HL3-S-8.0	2/16/2015	8.0	NA	<1	<50
HL3-SW-10.0	2/19/2015	10.0	<0.210	<0.99	<49
HL3-N-8.0	2/16/2015	8.0	NA	3.2	<50
HL3-10	2/16/2015	10.0	NA	14,000	34,000
HL3-12.8	2/19/2015	12.8	<0.210	<0.99	<50
HL3-15.0	2/19/2015	15.0	<0.200	<0.99	<50
HL-4-8.0	12/29/2014	8.0	<0.230	1.7	<50
HL-5-8.0	12/29/2014	8.0	<0.190	<1.0	<50
HL-6-8.0	12/29/2014	8.0	<0.180	1,800	5,000
HL6-W-8.0	2/16/2015	8.0	NA	4.8	<50
HL6-E-8.0	2/16/2015	8.0	NA	<1	<50
HL6-S-8.0	2/16/2015	8.0	NA	11	<50
HL6-N-8.0	2/16/2015	8.0	NA	2,800	7,400
HL6-N1-8.0	2/19/2015	8.0	NA	1.9	<50
HL6-10-8.0	2/16/2015	10.0	NA	<1	<50
HL-7-8.0	12/29/2014	8.0	<0.180	58	77
HL-8-8.0	12/29/2014	8.0	<0.190	770	990
HL8-W-8.0	2/16/2015	8.0	NA	190	480
HL8-W1-8.0	2/19/2015	8.0	NA	<0.99	<50
HL8-E-8.0	2/16/2015	8.0	NA	1.1	<50
HL8-S-4.0	2/16/2015	4.0	NA	4.4	<50
HL8-S-8.0	2/16/2015	8.0	NA	<1	<50
HL8-N-8.0	2/16/2015	8.0	NA	<1	<50
HL8-10	2/16/2015	10.0	NA	2.5	<50

# TOTAL PETROLEUM HYDROCARBONS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

	Date	Sample Depth			
Sample ID	Collected	(feet bgs)	TPHg	TPHd	TPHmo
Samples Collected with	in Footprint of	Former Building	B (cont'd)		
HL-9-8.0	12/29/2014	8.0	<0.190	<1.0	<50
HL-10-8.0	12/29/2014	8.0	<0.190	<1.0	<50
HL-11-8.0	12/29/2014	8.0	<0.200	<1.0	<50
HL-12-8.0	12/29/2014	8.0	<0.200	<0.99	<49
HL-13-8.0	12/29/2014	8.0	<0.200	<1.0	<50
HL-14-8.0	12/29/2014	8.0	<0.200	<0.99	<49
DL-2-2.5	12/30/2014	2.5	<0.210	2.6	<49
DL-3-2.75	12/30/2014	2.8	<0.260	<1.0	<50
DL-4-3.0	12/30/2014	3.0	<0.250	1.4	<50
DL-5-3.25	12/30/2014	3.3	<0.230	4.0	<49
DL-6-3.5	12/30/2014	3.5	<0.210	5.4	<50
DL-7-3.75	12/30/2014	3.8	<0.230	4.5	<50
DL-8-4.0	12/30/2014	4.0	<0.200	1.3	<50
DL9-5.0	3/30/2015	5.0	<0.200	<0.99	<50
BBFS1-2.5	1/6/2015	2.5	<0.210	16	<50
Confirmation Samples	Collected at the	Former Front E	nd Alignment P	Pit in Building B	
FEPIT-EXS-11	2/17/2015	6.0	<0.250	<1	<50
FEPIT-EXB-12	2/17/2015	12.0	<0.250	<0.99	<50
FEPIT-EXS-13	2/17/2015	6.0	<0.220	1.5	<50
FEPIT-EXB-14	2/17/2015	12.0	<0.210	160	300
FEPIT-EXS-15	2/17/2015	6.0	<0.200	2.5	<49
FEPIT-EXB-16	2/17/2015	12.0	<0.190	<1	<50
Confirmation Samples	Collected at the	e Former Sump in	n Building B		
SUMP-EXS-9	2/18/2015	8.0	<0.200	1.7	<50
SUMP-EXS-10	2/18/2015	8.0	<0.200	1.2	<50
SUMP-EXB-11	2/18/2015	14.0	<0.210	<1	<50
SUMP-EXS-12	2/18/2015	4.0	<0.190	1.1	<50
SUMP-EXS-13	2/18/2015	10.0	<0.210	<1	<50
SUMP-EXB-14	2/18/2015	15.5	<0.220	<0.99	<50
SUMP-EXB-15	2/18/2015	15.0	<0.230	<0.99	<49
SUMP-EXS-17	2/18/2015	8.0	<0.200	<1	<50
SUMP-EXS-18	2/18/2015	4.0	<0.200	<1	<50
Samples Collected with	in Footprint of	Former Building			
SSC1-1.0	12/19/2014	1.0	<0.230	<0.99	<50
SSC2-1.0	12/19/2014	1.0	<0.230	<0.99	<50
SSC3-1.0	12/19/2014	1.0	<0.220	1.1	<49
SSC4-1.0	12/23/2014	1.0	<0.230	2.5	<50
SSC5-1.0	12/23/2014	1.0	<0.220	2.0	<50

# TOTAL PETROLEUM HYDROCARBONS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

	Date	Sample Depth			
Sample ID	Collected	(feet bgs)	TPHg	TPHd	TPHmo
Samples Collected with	in Footprint of	Former Building	C (cont'd)		
SSC6-1.0	12/23/2014	1.0	<0.190	<0.99	<49
BCFS1-2.5	12/19/2014	2.5	< 0.200	150	210
BCFS1-W-2.5	2/16/2015	2.5	NA	<0.99	<49
BCFS1-E-2.5	2/16/2015	2.5	NA	16	<49
BCFS1-S-2.5	2/16/2015	2.5	NA	5	<50
BCFS1-N-2.5	2/16/2015	2.5	NA	<0.99	<49
BCFS1-4.5	2/16/2015	4.5	NA	<0.99	<50
BCFS2-2.5	1/6/2015	2.5	<0.200	1.1	<50
BCDL1-1.0	12/30/2014	1.0	<0.220	1.8	<50
BCDL2-1.0	12/30/2014	1.0	<0.240	2.3	<49
BCDL3-1.0	12/30/2014	1.0	<0.210	2.8	<49
BCDL4-2.5	3/30/2015	2.5	<0.190	2.1	<49
BCDL5-2.8	3/30/2015	2.8	<0.190	<1	<50
Samples Collected with	in Footprint of	Former Building	D		
SSD1-1.5	12/15/2014	1.5	<0.190	1.3	<50
Samples Collected at O	ther Areas of the	ne Site			
CW-S-3.5	12/16/2014	3.5	<0.180	21	74
WOTP1-1.25	12/30/2014	1.25	<0.280	48	120
WOTP1-W-1.25	2/16/2015	1.25	NA	NA	<50
WOTP1-E-1.25	2/16/2015	1.25	NA	NA	1,200
WOTP1-E1-1.25	2/19/2015	1.25	NA	4.7	<49
WOTP1-S-1.25	2/16/2015	1.25	NA	NA	<49
WOTP1-N-1.25	2/16/2015	1.25	NA	NA	<49
WOTP1-3.25	2/16/2015	3.25	NA	NA	<50
WOTP2-2.5	12/30/2014	2.5	<0.220	2.5	<50
WOTP3-4.0	12/30/2014	4.0	<0.210	1.3	<50
Sanitary Sewer Line Sa					-
SL1-6.2	3/25/2015	6.2	<0.190	<0.99	<49
SL2-5.8	3/25/2015	5.8	<0.210	<1	<50
SL3-6.2	3/25/2015	6.2	<0.190	<0.99	<50
SL4-6.2	3/25/2015	6.2	<0.190	<1	<50
SL5-6.1	3/25/2015	6.1	<0.220	<0.99	<49
SL6-6.0	3/25/2015	6.0	<0.210	<0.99	<49
SL7-6.5	3/25/2015	6.5	<0.220	1.3	<50
SL8-6.4	3/25/2015	6.4	<0.180	<1	<50
SL9-6.5	3/25/2015	6.5	<0.250	<1	<50
SL10-6.8	3/25/2015	6.8	<0.240	<1	<50
SL11-6.5	3/25/2015	6.5	<0.210	<1	<50
SL12-6.3	3/25/2015	6.3	<0.200	<1	<50

## TOTAL PETROLEUM HYDROCARBONS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

Sample ID	Date Collected	Sample Depth (feet bgs)	TPHg	TPHd	TPHmo
Sanitary Sewer Line Sa	mples (cont'd)				
SL13-5.5	3/30/2015	5.5	<0.200	<1	<50
SL14-5.3	3/30/2015	5.3	<0.240	<0.98	<49
SL15-5.3	3/30/2015	5.3	<0.180	<0.99	<50
SL16-4.7	3/30/2015	4.7	<0.300	<0.99	<50
SL17-4.8	3/30/2015	4.8	<0.240	<1	<50
SL18-4.8	3/30/2015	4.8	<0.210	<0.99	<49
SL19-4.2	3/30/2015	4.2	<0.200	<0.99	<50
SL20-3.7	3/30/2015	3.7	<0.210	<0.98	<49
SL21-3.0	3/30/2015	3.0	<0.210	<1	<50
Overburden Soil Sampl	es				
OB1-1-4	2/25/2015		<0.250	75	97
OB2-1-4	2/25/2015		<0.240	24	64
Residential ESL <sup>5</sup>			100	100	100

### Results reported in milligrams per kilogram (mg/kg)

Notes

- Samples analyzed for TPHd and TPHmo using U.S. EPA Method 8015B, following a silica gel preparation procedure in accordance with U.S. EPA Method 3630B and for TPHg using U.S. EPA Method 8260B.
- 2. "<" indicates the compound was not detected at a concentration at or greater than the laboratory
- 3. Shading indicates that the sample was collected from soil that was subsequently removed during excavation.
- 4. Results greater than ESLs shown in **bold**.
- 5. California Regional Water Quality Control Board, San Francisco Region, 2013, Environmental Screening Levels, Table A. Shallow Soil Screening Level (≤3m bgs), Residential Land Use (groundwater is a current or potential drinking water resource), December.

### **Abbreviations**

- -- = not applicable
- bgs = below ground surface
- ESL = Environmental Screening Level
- U.S. EPA = U.S. Environmental Protection Agency
- NA = not analyzed
- TPHd = total petroleum hydrocarbons quantified as diesel
- TPHg = total petroleum hydrocarbons quantified as gasoline
- TPHmo = total petroleum hydrocarbons quantified as motor oil

### SEMIVOLATILE ORGANIC COMPOUNDS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

		0 annul a			<u> </u>	ler kilograffi (filg		Dested	Haveabland	0 and 4	
	Data	Sample	Denne [h]	Dennela h il		O Mathud	Bis(2-	Butyl-	Hexachloro-	3- and 4-	All Other
0	Date	Depth	Benzo[b]-	Benzo[g,h,i]-		2-Methyl-	ethylhexyl)-	benzyl-	cyclo-	Methyl-	
Sample ID	Collected	(feet bgs)	fluoranthene	perylene	Naphthalene	naphthalene	phthalate	phthalate	pentadiene	phenol	SVOCs <sup>2</sup>
Samples Collected with		1		I					,		
SSB1-1.0	12/16/2014	1.0	< 0.066 3	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SSB2-1.0	12/16/2014	1.0	<0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SSB3-1.0	12/16/2014	1.0	<0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SSB4-1.0	12/17/2014	1.0	<0.067	<0.067	<0.067	<0.067	<0.33 UJ <sup>4</sup>	<0.17 UJ	<0.17 R <sup>5</sup>	<0.067	ND
SSB5-1.5	12/17/2014	1.5	<0.067	< 0.067	<0.067	<0.067	<0.33 UJ	<0.17 UJ	<0.17 R	<0.067	ND
SSB6-1.0	12/22/2014	1.0	<0.066	<0.066	< 0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SSB7-1.0	12/22/2014	1.0	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
SSB8-2.5	12/30/2014	2.5	<0.067	<0.067	<0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
HL-1-8.0 <sup>6</sup>	12/29/2014	8.0	<0.66	<0.66	<0.66	<0.66	<3.3	<1.7	<1.7	<0.66	ND
HL-2-8.0	12/29/2014	8.0	< 0.067	<0.067	< 0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
HL-3-8.0	12/29/2014	8.0	<1.7	<1.7	<1.7	<1.7	35	<4.2	<4.2	<1.7	ND
HL3-W-8.0	2/16/2015	8.0	<0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
HL3-E-8.0	2/16/2015	8.0	<0.066	<0.066	< 0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
HL3-S-8.0	2/17/2015	8.0	< 0.067	< 0.067	< 0.067	< 0.067	< 0.33	<0.17	<0.17	< 0.067	ND
HL3-SW-10.0	2/19/2015	10.0	< 0.066	<0.066	< 0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
HL3-N-8.0	2/16/2015	8.0	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
HL3-10	2/17/2015	10.0	<0.066	<0.066	0.55	0.727	<0.33	<0.17	<0.17	<0.066	ND
HL3-12.8 <sup>8</sup>	2/19/2015	12.8	<0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
HL3-15.0 <sup>8</sup>	2/19/2015	15.0	<0.066	<0.066	< 0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
HL-4-8.0	12/29/2014	8.0	<0.067	< 0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
HL-5-8.0	12/29/2014	8.0	<0.066	< 0.066	< 0.066	<0.066	< 0.33	<0.17	<0.17	<0.066	ND
HL-6-8.0	12/29/2014	8.0	<0.67	<0.67	<0.67	<0.67	<3.3	<1.7	<1.7	<0.67	ND
HL-7-8.0	12/29/2014	8.0	<0.067	<0.067	<0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
HL-8-8.0	12/29/2014	8.0	< 0.067	< 0.067	< 0.067	< 0.067	< 0.33	<0.17	<0.17	< 0.067	ND
HL-9-8.0	12/29/2014	8.0	<0.067	<0.067	<0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
HL-10-8.0	12/29/2014	8.0	<0.067	<0.067	< 0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
HL-11-8.0	12/29/2014	8.0	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
HL-12-8.0	12/29/2014	8.0	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
HL-13-8.0	12/29/2014	8.0	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
HL-14-8.0	12/29/2014	8.0	<0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
DL-2-2.25	12/30/2014	2.3	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
DL-3-2.75	12/30/2014	2.8	<0.066	<0.066	<0.066	<0.066	<0.32	<0.17	<0.17	<0.066	ND
DL-4-3.0	12/30/2014	3.0	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
DL-5-3.25	12/30/2014	3.3	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND

#### SEMIVOLATILE ORGANIC COMPOUNDS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

Sample ID	Date Collected	Sample Depth (feet bgs)	Benzo[b]- fluoranthene	Benzo[g,h,i]- perylene	Naphthalene	2-Methyl- naphthalene	Bis(2- ethylhexyl)- phthalate	Butyl- benzyl- phthalate	Hexachloro- cyclo- pentadiene	3- and 4- Methyl- phenol	All Other SVOCs <sup>2</sup>
Samples Collected wi	thin Footprint o	of Former B	uilding B (cont	'd)	•						
DL-6-3.5	12/30/2014	3.5	< 0.067	<0.067	<0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
DL-7-3.75	12/30/2014	3.75	< 0.067	<0.067	<0.067	<0.067	< 0.33	<0.17	<0.17	0.067	ND
DL-8-4.0	12/30/2014	4.0	<0.066	<0.066	<0.066	<0.066	< 0.32	<0.17	<0.17	<0.066	ND
DL9-5.0	3/30/2015	5.0	< 0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
BBFS1-2.5	1/6/2015	2.5	< 0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
Samples Collected wi	thin Footprint of	of Former B	uilding C								
SSC1-1.0	12/19/2014	1.0	< 0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SSC2-1.0	12/19/2014	1.0	<0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SSC3-1.0	12/19/2014	1.0	<0.067	<0.067	<0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
SSC4-1.0	12/23/2014	1.0	<0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SSC5-1.0	12/23/2014	1.0	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
SSC6-1.0	12/23/2014	1.0	<0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
BCFS1-2.5	12/19/2014	2.5	< 0.067	0.076	< 0.067	0.27	1.2	0.19	<0.17	< 0.067	ND
BCFS1-W-2.5	2/16/2015	2.5	<0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
BCFS1-E-2.5	2/16/2015	2.5	< 0.066	<0.066	<0.066	2.7	<0.33	<0.17	<0.17	<0.066	ND
BCFS1-E1-2.5	2/25/2015	2.5	0.094	0.13	<0.067	<0.067	1.8	<0.17	<0.17	<0.067	ND
BCFS1-S-2.5	2/16/2015	2.5	<0.067	<0.067	<0.067	0.12	<0.33	<0.17	<0.17	<0.067	ND
BCFS1-N-2.5	2/16/2015	2.5	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
BCFS1-4.5 8	2/16/2015	4.5	< 0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
BCFS2-2.5	1/6/2015	2.5	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
BCDL1-1.0	12/30/2014	1.0	< 0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
BCDL2-1.0	12/30/2014	1.0	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
BCDL3-1.0	12/30/2014	1.0	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	0.19	ND
BCDL4-2.5	3/30/2015	2.5	< 0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
BCDL5-2.8	3/30/2015	2.8	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
Samples Collected wi	thin Footprint of	of Former B	uilding D								
SSD1-1.5	12/15/2014	1.5	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
Samples Collected at	Other Areas of	the Site									
CW-S-3.5	12/16/2014	3.5	< 0.067	<0.067	<0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
WOTP1-1.25	12/30/2014	1.3	< 0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
WOTP2-2.5	12/30/2014	2.5	<0.066	<0.066	<0.066	<0.066	<0.32	<0.17	<0.17	<0.066	ND
WOTP3-4.0	12/30/2014	4.0	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
Sanitary Sewer Line S	Samples										
SL1-6.2	3/25/2015	6.2	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
SL2-5.8	3/25/2015	5.8	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND

### SEMIVOLATILE ORGANIC COMPOUNDS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

	Date	Sample Depth	Benzo[b]-	Benzo[g,h,i]-		2-Methyl-	Bis(2- ethylhexyl)-	Butyl- benzyl-	Hexachloro- cyclo-	3- and 4- Methyl-	All Other
Sample ID	Collected	(feet bgs)	fluoranthene	perylene	Naphthalene	naphthalene	phthalate	phthalate	pentadiene	phenol	SVOCs <sup>2</sup>
Sanitary Sewer Line S	· · ·	/									
SL3-6.2	3/25/2015	6.2	<0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SL4-6.2	3/25/2015	6.2	<0.066	<0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SL5-6.1	3/25/2015	6.1	< 0.067	< 0.067	< 0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
SL6-6.0	3/25/2015	6.0	< 0.067	< 0.067	< 0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
SL7-6.5	3/25/2015	6.5	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
SL8-6.4	3/25/2015	6.4	<0.067	<0.067	< 0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
SL9-6.5	3/25/2015	6.5	<0.067	<0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
SL10-6.8	3/25/2015	6.8	<0.067	<0.067	< 0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
SL11-6.5	3/25/2015	6.5	<0.067	< 0.067	< 0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
SL12-6.3	3/25/2015	6.3	<0.067	< 0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
SL13-5.5	3/30/2015	5.5	<0.066	< 0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SL14-5.3	3/30/2015	5.3	<0.066	< 0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SL15-5.3	3/30/2015	5.3	<0.066	< 0.066	<0.066	<0.066	<0.33	<0.17	<0.17	<0.066	ND
SL16-4.7	3/30/2015	4.7	<0.067	< 0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
SL17-4.8	3/30/2015	4.8	<0.067	< 0.067	<0.067	<0.067	<0.33	<0.17	<0.17	<0.067	ND
SL18-4.8	3/30/2015	4.8	< 0.066	< 0.066	< 0.066	<0.066	< 0.33	<0.17	<0.17	<0.066	ND
SL19-4.2	3/30/2015	4.2	< 0.067	< 0.067	< 0.067	<0.067	< 0.33	<0.17	<0.17	<0.067	ND
SL20-3.7	3/30/2015	3.7	<0.066	< 0.066	< 0.066	<0.066	< 0.33	<0.17	<0.17	< 0.066	ND
SL21-3.0	3/30/2015	3.0	<0.066	< 0.066	<0.066	<0.066	< 0.33	<0.17	<0.17	<0.066	ND
Overburden Soil Sam	ples										
OB1-1-4	2/25/2015		<0.066	< 0.066	< 0.066	<0.066	< 0.33	<0.17	<0.17	<0.066	ND
OB2-1-4	2/25/2015		<0.13	<0.13	<0.13	<0.13	<0.66	<0.34	<0.34	<0.13	ND
Residential ESL <sup>9</sup>			0.38	27	1.2	0.25	160	NL	NL	NL	

#### SEMIVOLATILE ORGANIC COMPOUNDS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

#### Notes

- 1. Samples were analyzed for SVOCs using U.S. EPA Method 8270C.
- No other SVOCs were detected. The other SVOCs analyzed include acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[a]pyrene, benzo[k]fluoranthene, chrysene, fluorene, pyrene, hexachloeoethane, 2,4,6-trichlorophenol, 2,4-dimethlylphenol, 2,4-dinitrophenol, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 2-methyl-4,6-dinitrophenol, 2-methylphenol, 2-nitroaniline, 2-nitrophenol, 3,3-dichlorobenzidine, 3-nitroaniline, 4-bromophenylphenyl ether, 4-chloro-3-methylphenol, 4-nitrophenol, azobenzene, di-n-butylphthalate, di-n-octylphthalate, dibenzofuran, diethylphthalate, dimethylphthalate, hexachlorobenzene, hexachlorocyclopentadiene, isophorone, n-nitrosodiphenylamine, pentachlorophenol, hexachloroethane, 2,4,6-trichlorophenol, dibenz(a,h)anthracene, fluoranthene, indeno[1,2,3-cd]pyrene, phenanthrene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, hexachlorobutadiene, 1,2,4-trichlorobenzene, 2,4,5-trichlorophenol, 2,4-dinitorophenol, 2-chloroanphthalene, 2-chlorophenol, 4-nitroaniline, benzoic acid, benzylalcohol, bis(2-chloroethyl)ether, bis(2-chloroethoxy)methane, n-nitrosodi-n-propylamine, nitrobenzene, and phenol.
- 3. "<" indicates the compound was not detected at a concentration at or greater than the laboratory reporting limit shown.
- 4. "UJ" indicates the analyte was not detected at a level greater than or equal to the adjusted quantitation limit. The reported adjusted quantitation limit is approximate and may be inaccurate or imprecise.
- 5. "R" indicates the result for the analyte is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may be present in the sample.
- 6. Shading indicates that the sample was collected from soil that was subsequently removed during excavation.
- 7. Results greater than ESLs are shown in **bold**.
- 8. Sample analyzed using both U.S. EPA Method 8270C and U.S. EPA Method 8270C with SIM; results shown were analyzed by U.S. EPA Method 8270C with SIM.
- California Regional Water Quality Control Board, San Francisco Region, 2013, Environmental Screening Levels, Table A. Shallow Soil Screening Level (<3m bgs), Residential Land Use (groundwater is a current or potential drinking water resource), December.

#### Abbreviations

- -- = not applicable
- bgs = below ground surface
- ESL = Environmental Screening Level
- U.S. EPA = U.S. Environmental Protection Agency
- SVOCs = semivolatile organic compounds
- SIM = selective ion monitoring
- ND = not detected above laboratory reporting limit
- NL = not listed

# METALS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

	5.4	Sample					
Commiss ID	Date	Depth	0	Ob an a main sure		Land	7:
Sample ID	Collected	(feet bgs)		Chromium	Nickel	Lead	Zinc
Samples Collected							
SSB1-1.0	12/16/2014	1.0	0.27	33	31	8.9	48
SSB2-1.0	12/16/2014	1.0	0.21	27	35	4.8	30
SSB3-1.0	12/16/2014	1.0	<0.39 <sup>2</sup>	51	85	7.6	69
SSB4-1.0	12/17/2014	1.0	<0.41	40	42	15	63
SSB5-1.5	12/17/2014	1.0	0.28	28	39	5.1	36
SSB6-1.0	12/22/2014	1.0	0.13	26	36	4.2	27
SSB7-1.0	12/22/2014	1.0	0.91	34	47	6.2	42
SSB8-2.5	12/30/2014	2.5	<0.42	41	43	7.7	49
HL-1-8.0 <sup>3</sup>	12/29/2014	8.0	<0.39	33	38	5.8	47
HL-2-8.0	12/29/2014	8.0	0.40	36	37	6.6	54
HL-3-8.0	12/29/2014	8.0	1.70	34	39	68	240
HL-4-8.0	12/29/2014	8.0	<0.46	41	55	10	59
HL-5-8.0	12/29/2014	8.0	<0.36	33	30	5.4	41
HL-6-8.0	12/29/2014	8.0	<0.45	34	36	6.1	48
HL-7-8.0	12/29/2014	8.0	0.41	34	39	7.3	56
HL-8-8.0	12/29/2014	8.0	<0.45	41	37	6.5	57
HL-9-8.0	12/29/2014	8.0	<0.35	30	28	5.2	39
HL-10-8.0	12/29/2014	8.0	<0.41	33	28	5.3	41
HL-11-8.0	12/29/2014	8.0	0.40	37	40	6.7	54
HL-12-8.0	12/29/2014	8.0	<0.37	41	38	6.8	51
HL-13-8.0	12/29/2014	8.0	0.35	40	41	7.4	57
HL-14-8.0	12/29/2014	8.0	<0.40	34	34	5.5	45
DL-2-2.5	12/30/2014	2.5	0.16	33	46	7.9	45
DL-3-2.75	12/30/2014	2.8	0.56	32	45	6.4	49
DL-4-3.0	12/30/2014	3.0	<0.11	33	49	7.1	46
DL-5-3.25	12/30/2014	3.3	<0.11	34	45	6.3	44
DL-6-3.5	12/30/2014	3.5	0.29	34	49	7.0	47
DL-7-3.75	12/30/2014	3.8	<0.50	43	38	13	72
DL-8-4.0	12/30/2014	4.0	<0.45	51	44	8.8	72
DL9-5.0	3/30/2015	5.0	<0.31	41	7.8	39	54
BBFS1-2.5	1/6/2015	2.5	<0.11	46 J- <sup>4</sup>	37	5.2	34
Samples Collected	within Footpri	nt of Forme					
SSC1-1.0	12/19/2014	1.0	<0.45 UJ <sup>5</sup>	44	45	12 J+ <sup>6</sup>	74 J+
SSC2-1.0	12/19/2014	1.0	<0.50 UJ	44	45	12 J+	74 J+
SSC3-1.0	12/19/2014	1.0	0.25 J <sup>7</sup>	26	38	4.9 J+	33 J+
SSC4-1.0	12/23/2014	1.0	<0.42	32	44	6.6	42
SSC5-1.0	12/23/2014	1.0	0.32	34	36	11	55
SSC6-1.0	12/23/2014	1.0	0.48	37	37	10	65

# METALS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

	Date	Sample Depth					
Sample ID	Collected	(feet bgs)	Cadmium	Chromium	Nickel	Lead	Zinc
Samples Collected v	within Footpri	nt of Forme	er Building C	cont'd)			
BCFS1-2.5	12/19/2014	2.5	2.90 J	38	41	100 J+ <sup>8</sup>	130 J+
BCFS1-W-2.5	2/16/2015	2.5	NA	NA	NA	8.0	NA
BCFS1-E-2.5	2/16/2015	2.5	NA	NA	NA	7.5	NA
BCFS1-S-2.5	2/16/2015	2.5	NA	NA	NA	7.5	NA
BCFS1-N-2.5	2/16/2015	2.5	NA	NA	NA	7.9	NA
BCFS1-4.5	2/16/2015	4.5	NA	NA	NA	7.3	NA
BCFS2-2.5	1/6/2015	2.5	<0.43	40 J-	39	6.8	60
BCDL1-1.0	12/30/2014	1.0	<0.46	29	40	6.8	41
BCDL2-1.0	12/30/2014	1.0	<0.50	42	41	12	70
BCDL3-1.0	12/30/2014	1.0	<0.49	55	47	14	78
BCDL4-2.5	3/30/2015	2.5	<0.49	48	13	45	68
BCDL5-2.8	3/30/2015	2.8	<0.41	48	8.0	42	55
Samples Collected v	within Footpri	nt of Forme	er Building D	)			
SSD1-1.5	12/15/2014	1.5	0.19	34	36	4.8	30
Samples Collected a							
CW-S-3.5	12/16/2014	3.5	0.27	28	25	9.6	46
WOTP1-1.25	12/30/2014	1.3	0.19	31	43	6.4	43
WOTP2-2.5	12/30/2014	2.5	<0.44	36	46	6.6	42
WOTP3-4.0	12/30/2014	4.0	<0.47	47	45	8.1	70
Sanitary Sewer Line							
SL1-6.2	3/25/2015	6.2	0.20	30	6.4	28	42
SL2-5.8	3/25/2015	5.8	0.34	33	7.1	42	48
SL3-6.2	3/25/2015	6.2	<0.33	30	6.0	33	42
SL4-6.2	3/25/2015	6.2	<0.34	32	5.5	31	44
SL5-6.1	3/25/2015	6.1	<0.38	34	5.9	31	48
SL6-6.0	3/25/2015	6.0	<0.29	31	5.8	30	42
SL7-6.5	3/25/2015	6.5	<0.34	30	5.5	30	41
SL8-6.4	3/25/2015	6.4	<0.36	44	7.2	44	60
SL9-6.5	3/25/2015	6.5	<0.41	35	5.6	36	45
SL10-6.8	3/25/2015	6.8	<0.37	34	6.0	31	45
SL11-6.5	3/25/2015	6.5	<0.50	47	6.2	41	58
SL12-6.3	3/25/2015	6.3	<0.35	44	6.1	33	49
SL13-5.5	3/30/2015	5.5	<0.49	39	8.6	45	50
SL14-5.3	3/30/2015	5.3	<0.44	45	6.9	45	59
SL15-5.3	3/30/2015	5.3	<0.32	37	6.7	35	45
SL16-4.7	3/30/2015	4.7	<0.28	44	7.8	45	58
SL17-4.8	3/30/2015	4.8	<0.39	43	9.0	44	49
SL18-4.8	3/30/2015	4.8	<0.47	43	7.8	42	51

## METALS IN SOIL<sup>1</sup>

## Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

### Results reported in milligrams per kilogram (mg/kg)

Sample ID	Date Collected	Sample Depth (feet bgs)	Cadmium	Chromium	Nickel	Lead	Zinc			
Sanitary Sewer Line (cont'd)										
SL19-4.2	3/30/2015	4.2	<0.38	45	8.3	44	53			
SL20-3.7	3/30/2015	3.7	<0.41	46	8.3	45	54			
SL21-3.0	3/30/2015	3.0	<0.43	47	7.7	44	58			
Residential ESL <sup>9</sup>			12	1,000	150	80	600			

<u>Notes</u>

- 1. Samples analyzed for CA LUFT-5 Metals (cadmium, chromium, lead, nickel, and zinc) by U.S. EPA Method 6010B.
- 2. "< " indicates the compound was not detected at a concentration at or greater than the laboratory reporting limit shown.
- 3. Shading indicates that the sample was collected from soil that was subsequently removed during excavation.
- 4. "J-" indicates the result is an estimated quantity, but the result may be biased low.
- 5. "UJ" indicates the analyte was not detected at a level greater than or equal to the adjusted quantitation limit.
- 6. "J+" indicates the result is an estimated quantity, but the result may be biased high.
- 7. "J" indicates the analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- 8. Results greater than ESLs are shown in **bold**.
- 9. California Regional Water Quality Control Board, San Francisco Region, 2013, Environmental Screening Levels, Table A. Shallow Soil Screening Level (≤3m bgs), Residential Land Use (groundwater is a current or potential drinking water resource), December.

### **Abbreviations**

bgs = below ground surface ESL = Environmental Screening Level

U.S. EPA = U.S. Environmental Protection Agency

NA = not analyzed

## METALS IN OVERBURDEN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

Results reported in milligrams per kilogram (mg/kg)

Sample ID	Date Collected	Sample Depth (feet bgs)	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
OB1-1-4	2/25/2015		<1.3 UJ <sup>2,3</sup>	6.0 <sup>4</sup>	75	<0.26	0.41	32	8.2	15	5.6	0.057	<1.3	41	<2.6	<0.65	<1.3	20	45
OB2-1-4	2/25/2015		0.54 J-⁵	4.1	75	<0.095	0.27	47	6.6	17	7.2	0.061	0.61	42	<0.95	<0.24	<0.48	23	59
Residential ES	SL <sup>6</sup>		20	0.39	750	4	12	1,000	23	230	80	6.7	40	150	10	20	0.78	200	600

Notes

1. Samples analyzed for California Title 22 Metals by U.S. EPA Method 6010B and for Mercury by U.S. EPA Method 7470/7471.

2. "< " indicates the compound was not detected at a concentration at or greater than the laboratory reporting limit shown.

3. "UJ" indicates the analyte was not detected at a level greater than or equal to the adjusted quantitation limit. The reported adjusted quantitation limit is approximate and may be inaccurate or imprecise.

4. Results greater than ESLs are shown in **bold**.

5. "J-" indicates the result is an estimated quantity, but the result may be biased low.

6. California Regional Water Quality Control Board, San Francisco Region, 2013, Environmental Screening Levels, Table A. Shallow Soil Screening Level (3m bgs), Residential Land Use (groundwater is a current or potential drinking water resource), December.

Abbreviations

-- = not applicable

bgs = below ground surface

ESL = Environmental Screening Level

# POLYCHLORINATED BIPHENYLS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

	Date	Sample Depth							
Sample ID	Collected	(feet bgs)	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
Building B									
HL-1-8.0 <sup>2</sup>	12/29/2014	8.0	<98 <sup>3</sup>	<98	<98	<98	<98	<98	<b>410</b> <sup>4</sup>
HL1-W-8.0	2/16/2015	8.0	<49	<49	<49	<49	<49	<49	<49
HL1-E-8.0	2/16/2015	8.0	<48	<48	<48	<48	<48	<48	<48
HL1-S-8.0	2/16/2015	8.0	<49	<49	<49	<49	<49	<49	<49
HL1-N-8.0	2/16/2015	8.0	<50	<50	<50	<50	<50	<50	<50
HL-1-10	2/16/2015	10.0	<49	<49	<49	<49	<49	<49	<49
HL-2-8.0	12/29/2014	8.0	<49	<49	<49	<49	<49	<49	<49
HL-3-8.0	12/29/2014	8.0	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500	<2,500
HL3-W-8.0	2/16/2015	8.0	<49	<49	<49	<49	<49	<49	<49
HL3-E-8.0	2/16/2015	8.0	<48	<48	<48	<48	<48	<48	<48
HL3-S-8.0	2/17/2015	8.0	<49	<49	<49	<49	<49	<49	<49
HL3-SW-10.0	2/19/2015	10.0	<48	<48	<48	<48	<48	<48	<48
HL3-N-8.0	2/16/2015	8.0	<49	<49	<49	<49	<49	<49	<49
HL3-10	2/17/2015	10.0	<49	<49	<49	<49	<49	<49	<49
HL3-12.8	2/19/2015	12.8	<50	<50	<50	<50	<50	<50	<50
HL3-15.0	2/19/2015	15.0	<49	<49	<49	<49	<49	<49	<49
HL-4-8.0	12/29/2014	8.0	<50	<50	<50	<50	<50	<50	<50
HL-5-8.0	12/29/2014	8.0	<50	<50	<50	<50	<50	<50	<50
HL-6-8.0	12/29/2014	8.0	<49	<49	<49	<49	<49	<49	<49
HL-7-8.0	12/29/2014	8.0	<50	<50	<50	<50	<50	<50	<50
HL-8-8.0	12/29/2014	8.0	<49	<49	<49	<49	<49	<49	<49
HL-9-8.0	12/29/2014	8.0	<50	<50	<50	<50	<50	<50	<50
HL-10-8.0	12/29/2014	8.0	<49	<49	<49	<49	<49	<49	<49
HL-11-8.0	12/29/2014	8.0	<50	<50	<50	<50	<50	<50	<50

## POLYCHLORINATED BIPHENYLS IN SOIL<sup>1</sup>

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

Results reported in micrograms per kilogram (µg/kg)

Commiss ID	Date	Sample Depth			DOD 4000				
Sample ID	Collected	(feet bgs)	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260
Building B (cont'd)									
HL-12-8.0	12/29/2014	8.0	<49	<49	<49	<49	<49	<49	<49
HL-13-8.0	12/29/2014	8.0	<50	<50	<50	<50	<50	<50	<50
HL-14-8.0	12/29/2014	8.0	<49	<49	<49	<49	<49	<49	<49
Overburden Soils									
OB1-1-4	2/25/2015		<49	<49	<49	<49	<49	<49	<49
OB2-1-4	2/25/2015		<49	<49	<49	<49	<49	<49	<49
Residential ESL <sup>5</sup>			220	220	220	220	220	220	220

Notes

1. Samples were analyzed for PCBs using U.S. EPA Method 8082.

2. Shading indicates that the sample was collected from soil that was subsequently removed during excavation.

3. "<" indicates the compound was not detected at a concentration at or greater than the laboratory reporting limit shown.

4. Results greater than ESLs are shown in **bold**.

5. California Regional Water Quality Control Board, San Francisco Region, 2013, Environmental Screening Levels, Table A. Shallow Soil Screening Level (≤3m bgs), Residential Land Use (groundwater is a current or potential drinking water resource), December.

### Abbreviations

-- = not applicable

bgs = below ground surface

ESL = Environmental Screening Level

U.S. EPA = U.S. Environmental Protection Agency

PCBs = polychlorinated biphenyls

### HISTORICAL SOIL SAMPLES WITH EXCEEDANCES ABOVE REVISED ESLs

### Former Crown Chevrolet North Parcel 7544 Dublin Boulevard Dublin, California

Location	Sample ID	Date Collected	Depth (feet bgs)	Analyte	Result	2008 ESL <sup>1</sup>	2013 ESL <sup>2</sup>
B7	B7-4.0	2/24/2009	4.0	TPHmo	180	370	100
PIT-EXS-10	FEPIT-EXB-10-12	10/26/2011	12.0	TPHmo	170 J <sup>3</sup>	370	100
NM-B-11	NM-B-11-14.5-15.0	8/12/2011	15.0	TPHho	230 J	370	100

#### Results reported in micrograms per kilogram (mg/kg)

#### Notes

- California Regional Water Quality Control Board, San Francisco Region, 2008, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Table A-1. Shallow Soil Screening Level (≤3 m bgs), Residential Land Use (groundwater is a current or potential drinking water resource), May. The selected screening value is the lowest of those among urban ecotoxicity, human health (direct exposure), and potential leaching to groundwater.
- 2. California Regional Water Quality Control Board, San Francisco Region, 2013, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Table A-1. Shallow Soil Screening Level (≤3 m bgs), Residential Land Use (groundwater is a current or potential drinking water resource), December. The selected screening value is the lowest of those among urban ecotoxicity, human health (direct exposure), and potential leaching to groundwater.
- 3. "J" indicates the analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

#### Abbreviations

- bgs = below ground surface
- ESL = Environmental Screening Level
- TPHmo = total petroleum hydrocarbons quantified as motor oil
- TPHho = total petroleum hydrocarbons quantified as hydraulic oil

#### HISTORICAL SOIL VAPOR SAMPLES WITH EXCEEDANCES ABOVE REVISED ESLs

Former Crown Chevrolet North Parcel

#### 7544 Dublin Boulevard Dublin, California

Location	Sample ID	Date Collected	Depth (feet bgs)	Analyte	Result	2008 ESL <sup>1</sup>	2013 ESL <sup>2</sup>
SG-08	SG-08	6/9/2011	4.5	Benzene	68	84	42
SV-8	SV-8	8/16/2011	4-5	Benzene	55	84	42
SV-9	SV-9	8/18/2011	2.5-3	Benzene	44	84	42
	SV-9	8/18/2011	2.5-3	Bromodichloromethane	56	140	33
SV-10	SV-10	8/16/2011	4-5	Tetrachloroethene	280	410	210
SV-11	SV-11	8/18/2011	4-5	Benzene	74	84	42
	SV-11	8/18/2011	4-5	Bromodichloromethane	35	140	33
	SV-11	8/18/2011	4-5	Chloroform	270	460	230
SV-12	SV-12	8/16/2011	4-5	Bromodichloromethane	46	140	33
	SV-12	8/16/2011	4-5	Trichloroethene	300	1,200	300
SG-14	SG-14B	9/4/2012	7.5-8.5	Trichloroethene	400	1,200	300
	SG-19A	9/4/2012	7.5-8.5	Trichloroethene	380	1,200	300
SV-15	SV-15	8/18/2011	2.5-3.0	Ethylbenzene	540	980	490
SV-16	SV-16	8/18/2011	1.5-2.0	Tetrachloroethene	400	410	210
SV-21	SV-21	8/16/2011	4-5	Bromodichloromethane	83	140	33
SV-24	SV-24	8/17/2011	3.5-4.0	Trichloroethene	410	1,200	300

#### Results reported in micrograms per cubic meter (µg/m<sup>3</sup>)

Notes

- 1. California Regional Water Quality Control Board, San Francisco Region, 2008, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Table E-2. Shallow Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns, Residential Exposure, May.
- California Regional Water Quality Control Board, San Francisco Region, 2013, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Table E-2. Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion Concerns, Residential Exposure, December.

Abbreviations

bgs = below ground surface

ESL = Environmental Screening Level

### HISTORICAL GROUNDWATER SAMPLES WITH EXCEEDANCES ABOVE REVISED ESLS

Former Crown Chevrolet North Parcel 7544 Dublin Boulevard

## Dublin, California

Location	Sample ID	Date	Analyte	Result	2008 ESL <sup>1</sup>	2013 ESL <sup>2</sup>
SB-05	SB-05	9/28/2010	Hexavalent Chromium	1.1	11	0.02
SB-06	SB-06	9/28/2010	Hexavalent Chromium	0.94	11	0.02

### Results reported in micrograms per liter (µg/L)

Notes Notes

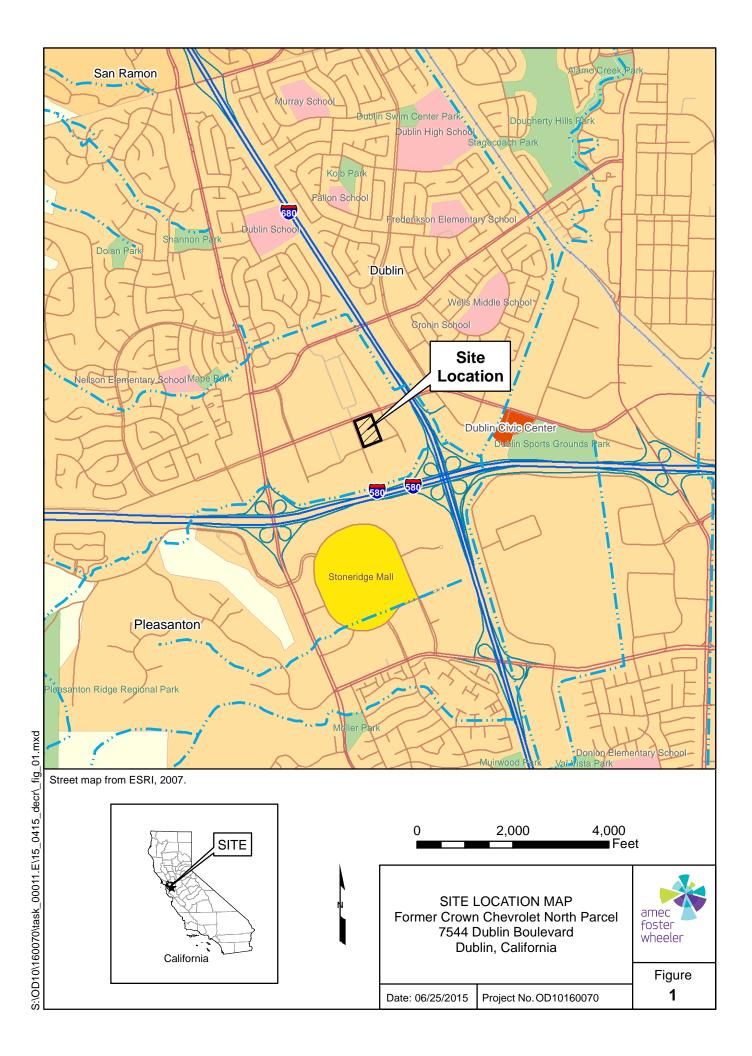
- California Regional Water Quality Control Board, San Francisco Region, 2008, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Table F-1a, Groundwater Screening Levels (groundwater is a current or potential drinking water source), May. The selected screening value is the lowest of those among drinking water goals, aquatic habitat goals, and taste and odor considerations.
- California Regional Water Quality Control Board, San Francisco Region, 2013, Environmental Screening Levels, Table F-1a. Groundwater Screening Levels (groundwater is a current or potential drinking water source), December. The selected screening value is the lowest of those among drinking water goals, aquatic habitat goals, and taste and odor considerations.

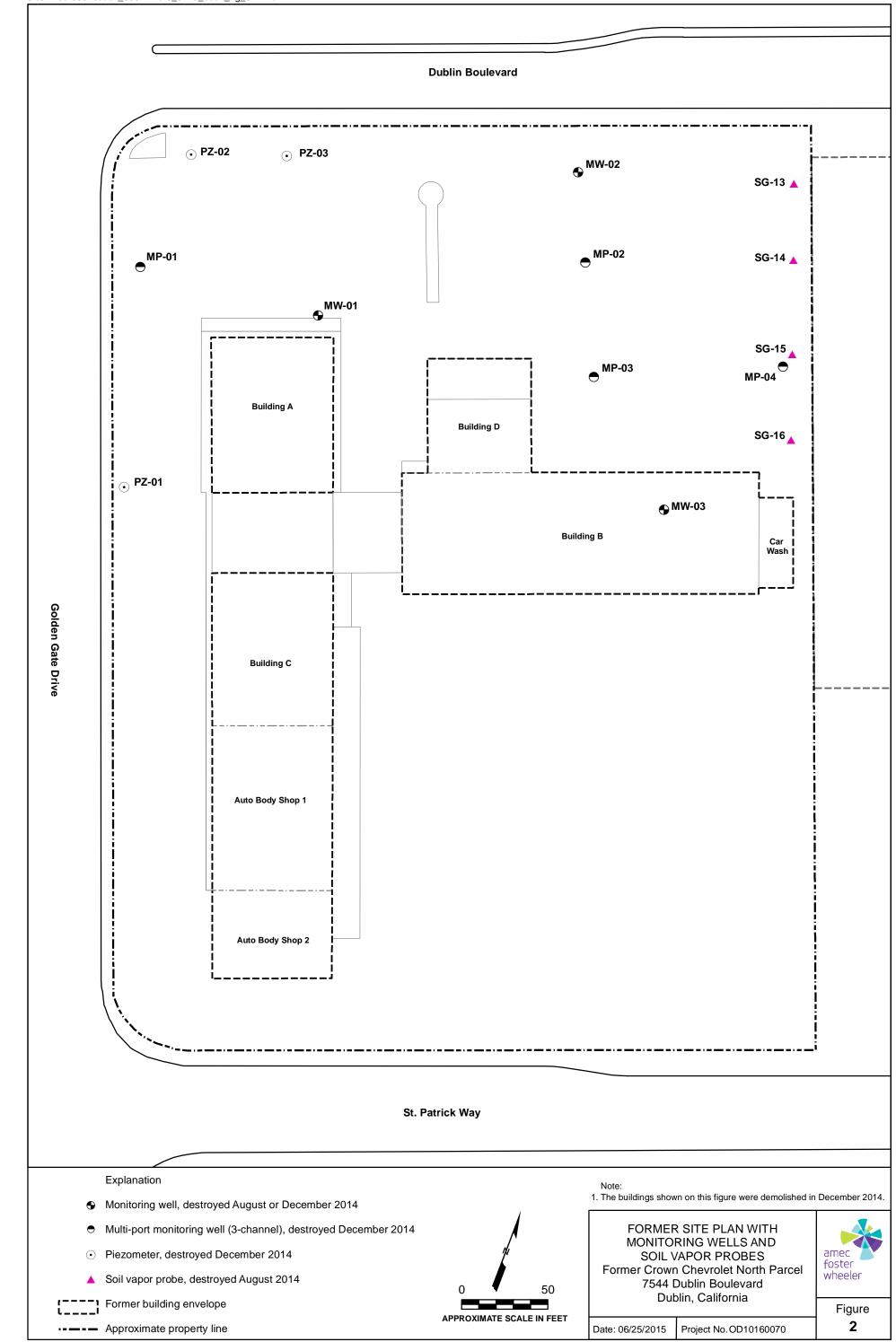
#### Abbreviations

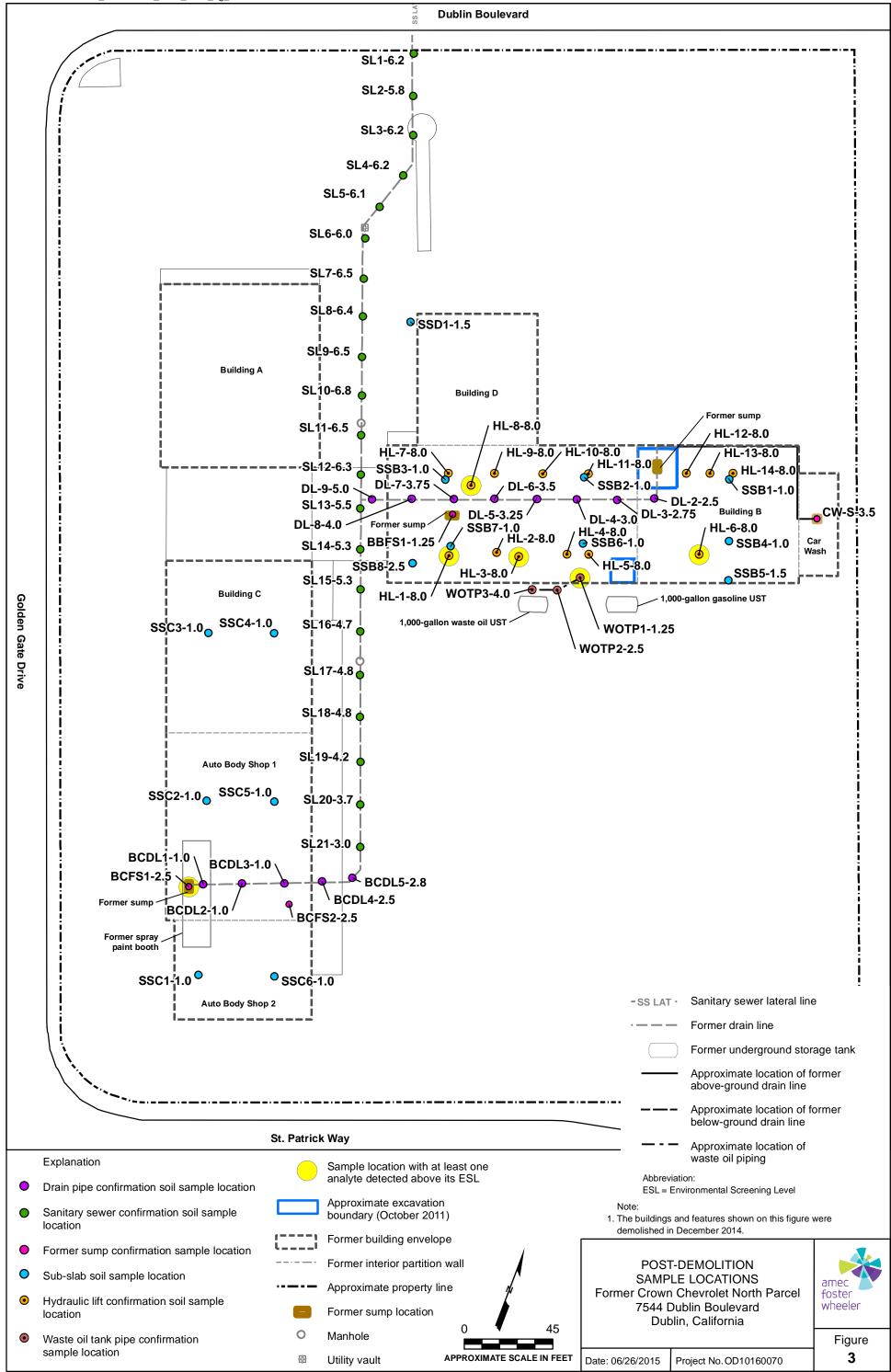
ESL = Environmental Screening Level

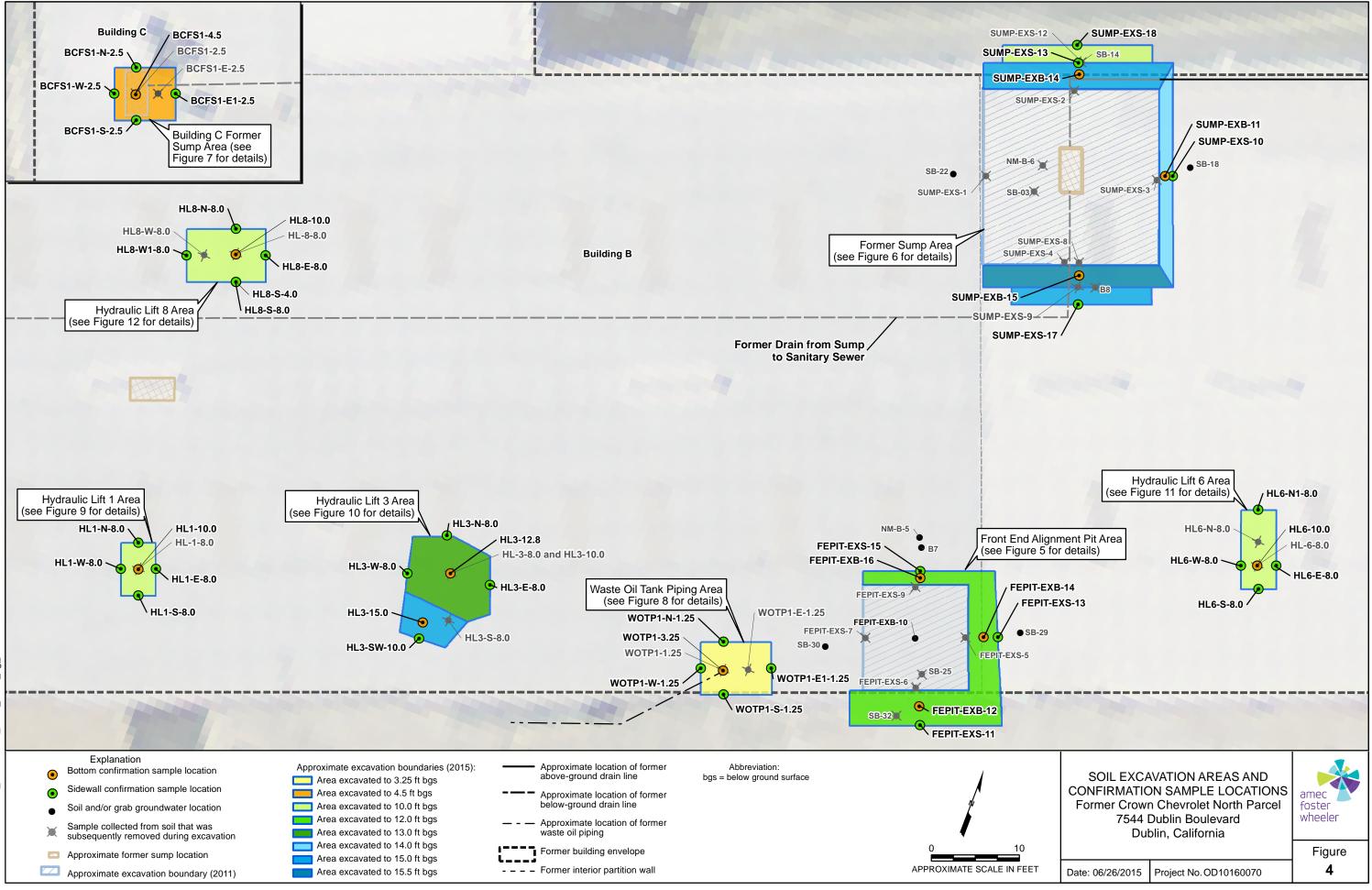


FIGURES





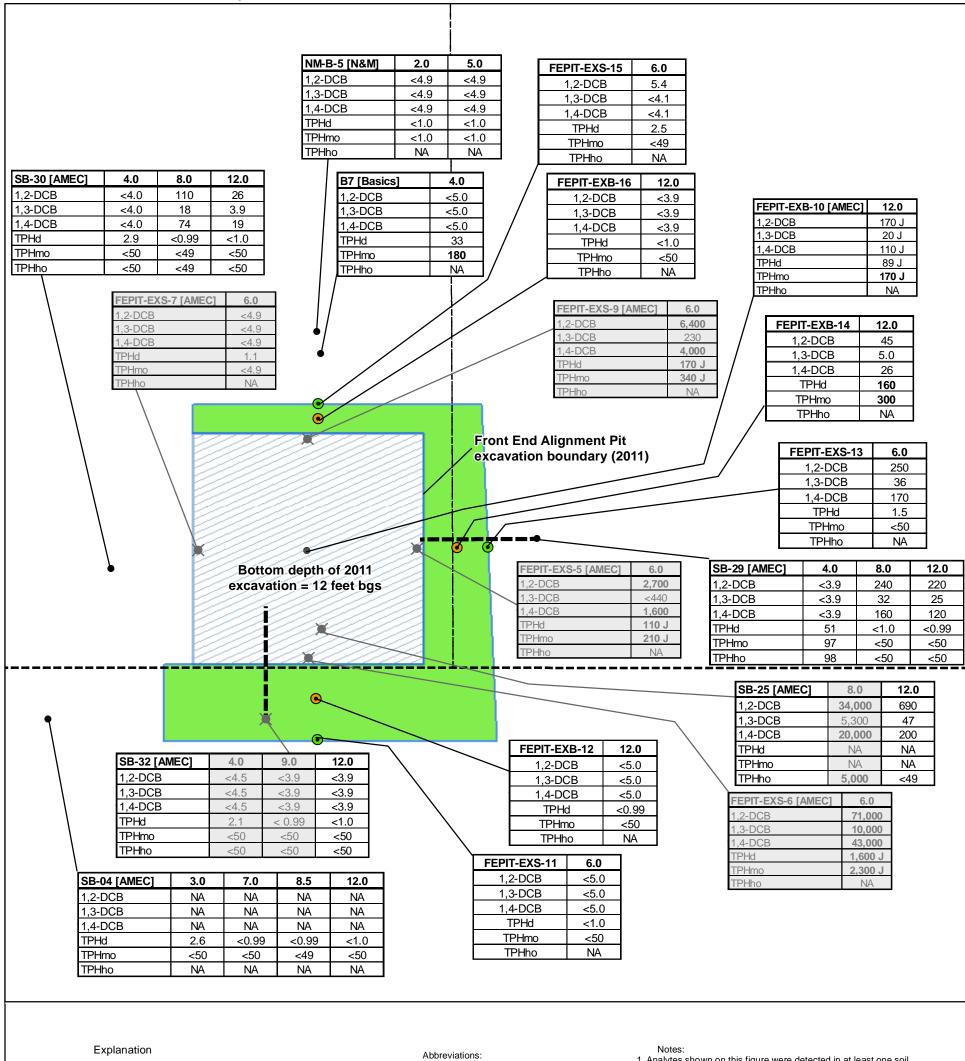




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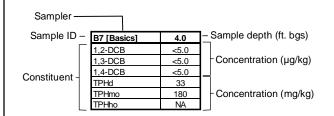
Explanation

- Bottom confirmation sample location (2015)
- Sidewall confirmation sample location (2015)  $oldsymbol{\bullet}$
- 1,2-DCB = 1,2-dichlorobenzene 1,3-DCB = 1,3-dichlorobenzene 1,4-DCB = 1,4-dichlorobenzene Basics = Basics Environmental, Inc. bas = below around surface ESLs = Environmental Screening Levels ft. = feet µg/kg = micrograms per kilogram mg/kg = milligrams per kilogram N&M = Ninvo & Moore NA = not analyzed < = not detected at or above above the laboratory reporting limit shown TPH = total petroleum hydrocarbons TPHd = TPH quantified as diesel TPHmo = TPH quantified as motor oil TPHho = TPH quantified as hydraulic oil VOCs = volatile organic compounds

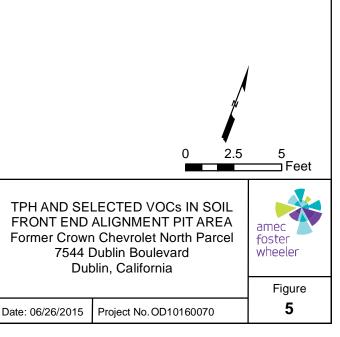
Notes

- 1. Analytes shown on this figure were detected in at least one soil sample at concentrations above their respective ESLs. Results shown in **bold** exceed ESLs.
- 2. Shading indicates that the sample was collected from soil that
- J = the analyte was positively identified, and the associated numerical value is the approximate concentration of the analyte in the sample

- - Historical soil and/or grab groundwater sample location
- Sample collected from soil that was subsequently removed during excavation
  - Approximate excavation boundary (2015), area excavated to 12.0 ft bgs
- Approximate excavation boundary (2011), area excavated to 12.0 ft bgs
- Former building envelope (demolished Dec. 2014)
- Interior building wall (demolished Dec. 2014)
- Approximate location of angled borings

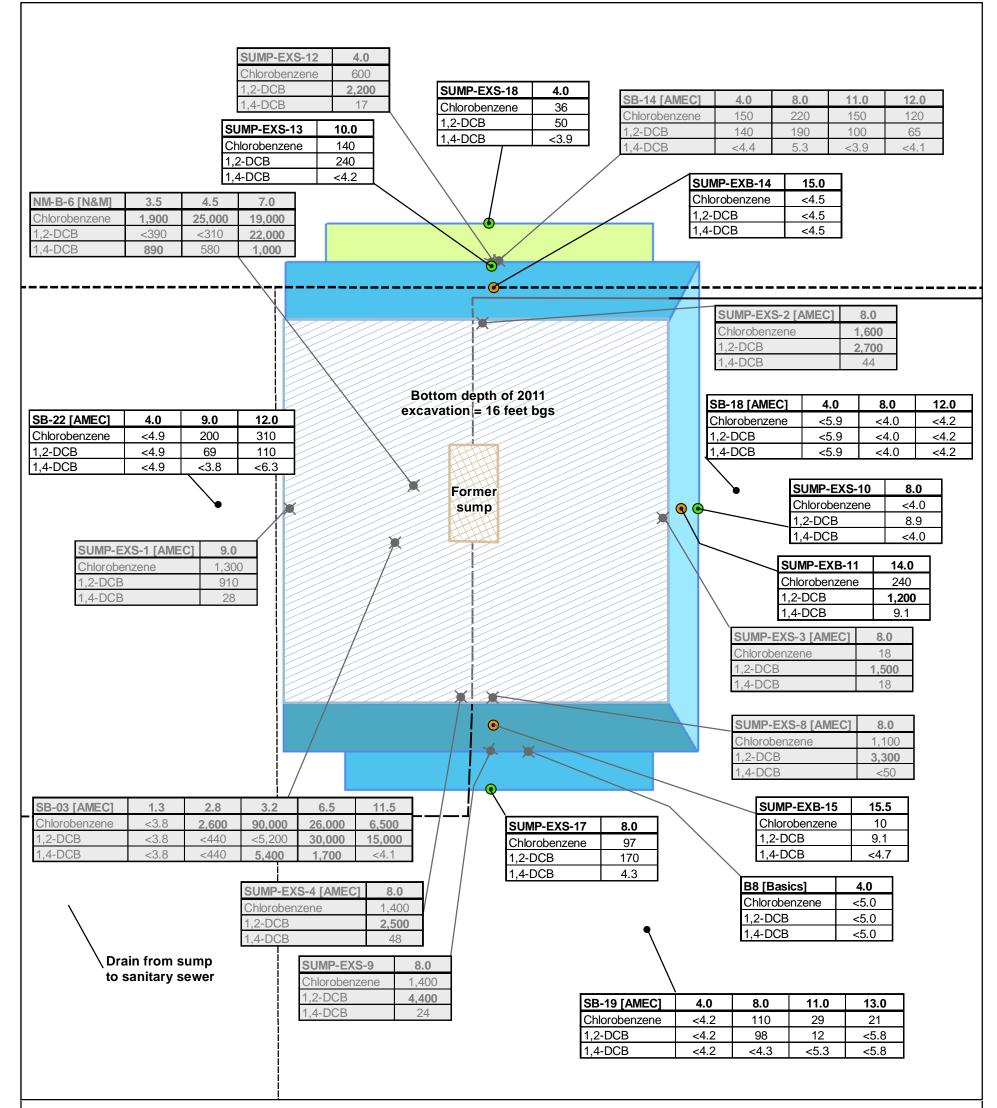


- was subsequently removed during excavation. 3. For clarity, borings not advanced within or adjacent to the excavation areas, or with samples not analyzed for target constituents, are not shown on this figure.
- See Figure 4 for excavation location.



Shallow So		
(Residential L		
1,2-DCB	] – [	
1,3-DCB	7,400	- (µg/kg)
1,4-DCB	590	
TPHd	100	] ]
TPHmo	100	- (mg/kg)
TPHho	100	]

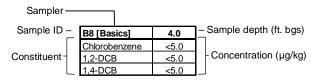
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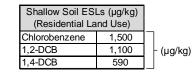


#### Explanation

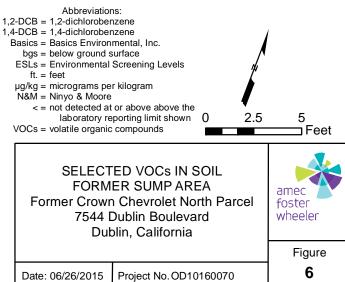
- Bottom confirmation sample location (2015)
- $\overline{\bullet}$ Sidewall confirmation sample location (2015)
- Historical soil and/or grab groundwater location •
- Sample collected from soil that was subsequently removed during excavation
- Approximate excavation boundary (2015), area excavated to 10.0 ft bgs
- Approximate excavation boundary (2015), area excavated to 14.0 ft bgs
- Approximate excavation boundary (2015), area excavated to 15.0 ft bgs
- Approximate excavation boundary (2015), area excavated to 15.5 ft bgs
- Approximate former sump location
  - Approximate excavation boundary (2011)

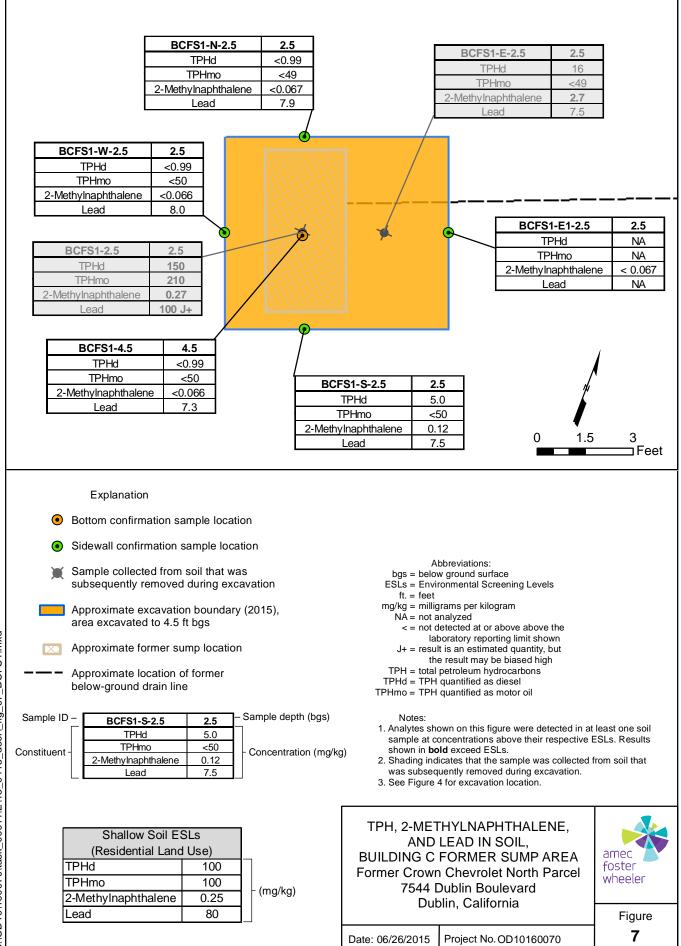
- Approximate location of former above-ground drain line
- Approximate location of former below-ground drain line
- Former building envelope L\_\_\_I
- --- Former interior partition wall



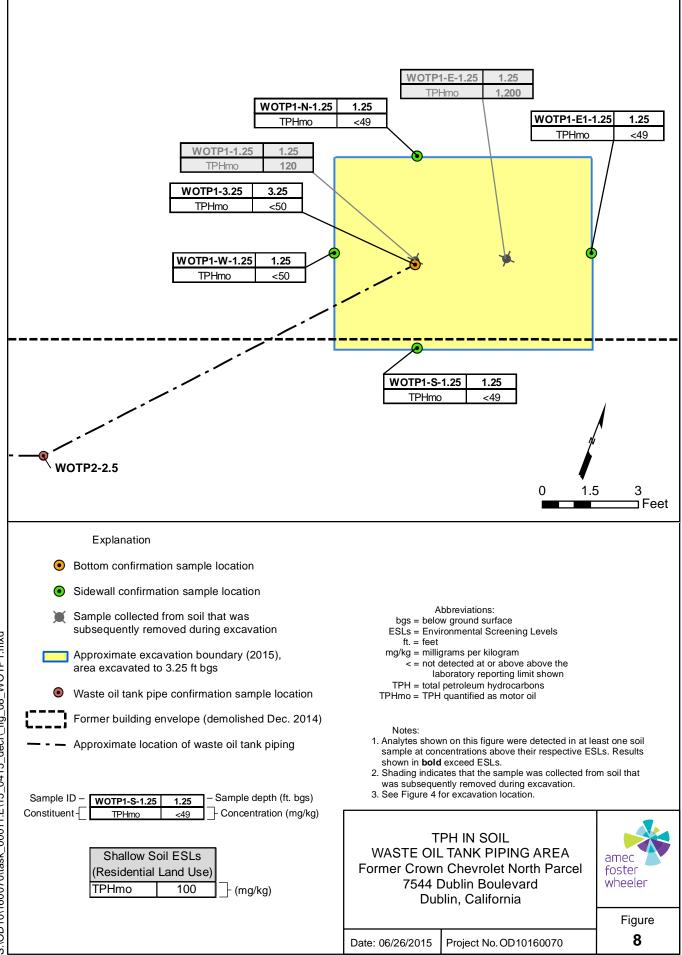


- Notes:
- 1. Analytes shown on this figure were detected in at least one soil sample at concentrations above their respective ESLs. Results shown in **bold** exceed ESLs.
- 2. Shading indicates that the sample was collected from soil that was
- subsequently removed during excavation. 3. For clarity, borings not advanced within or adjacent to the excavation areas, or with samples not analyzed for target constituents, are not shown on this figure. 4. See Figure 4 for excavation location.

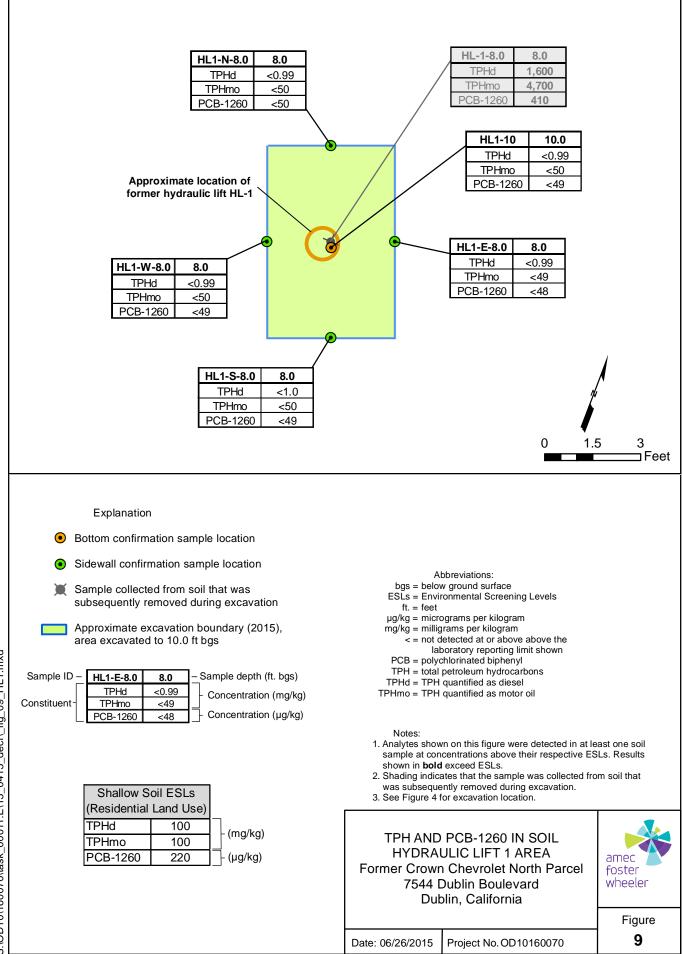


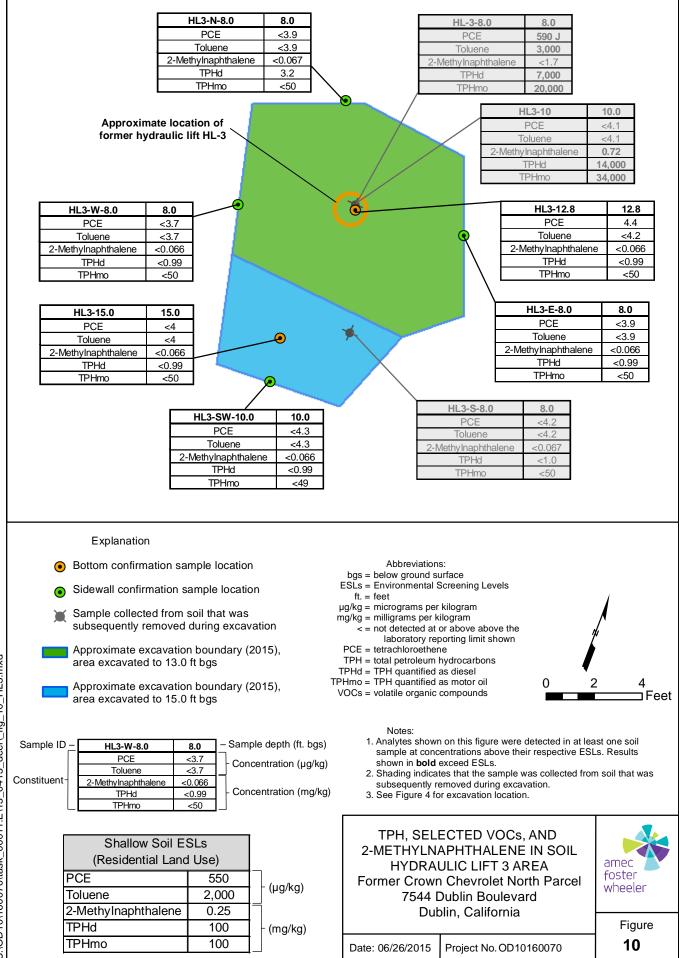


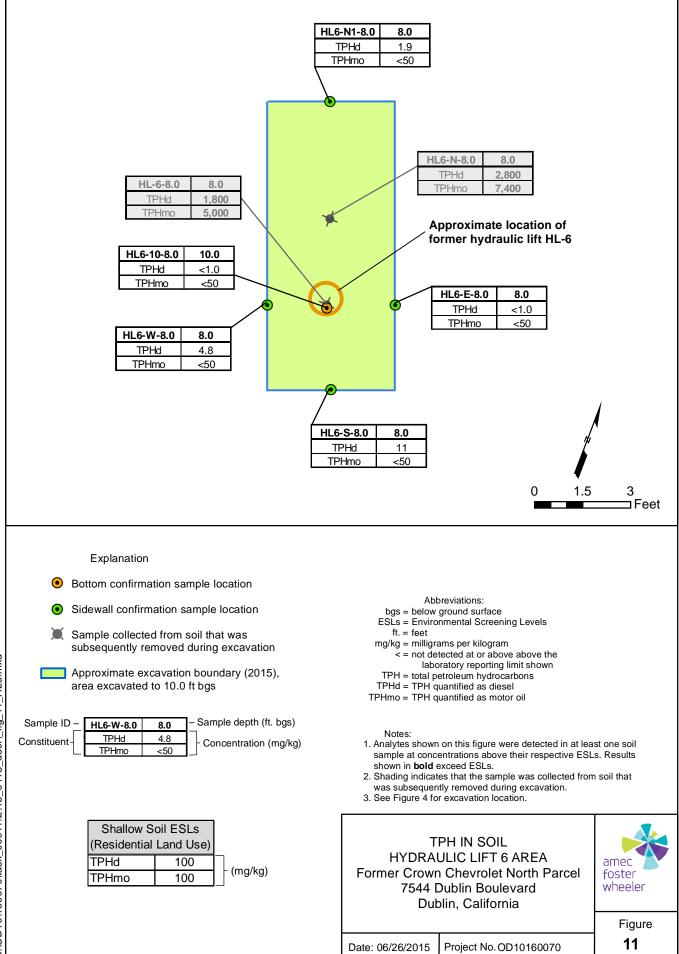
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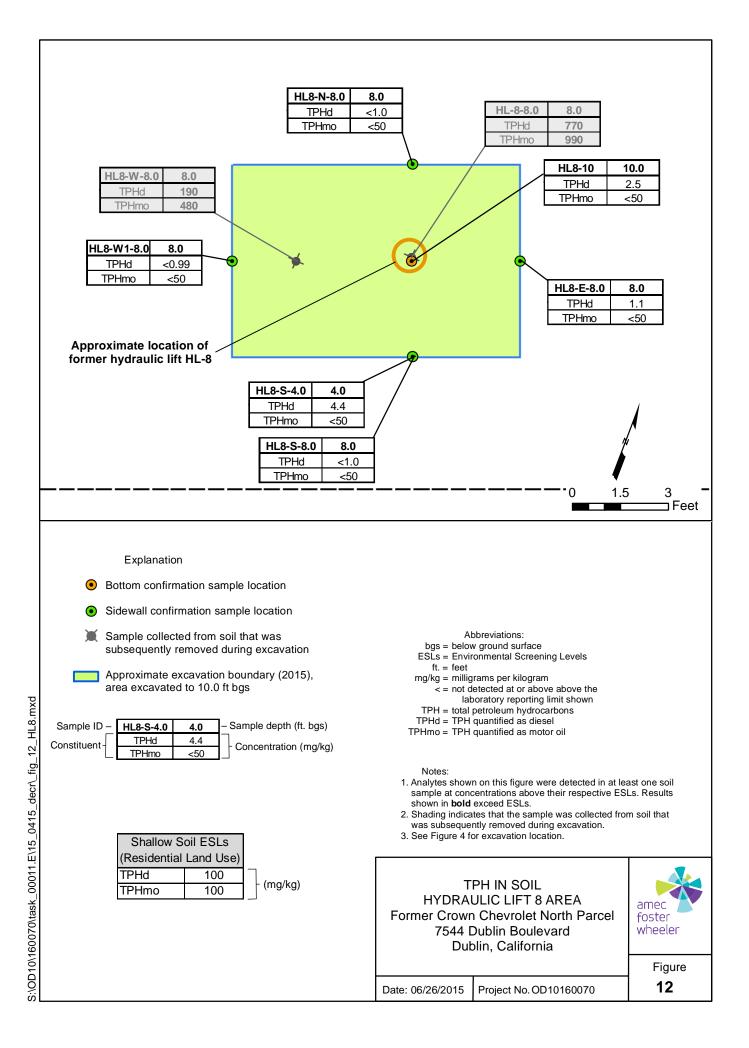
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