



## NOTICE OF DETERMINATION

ORIGINAL FILED

JUN 21 2017

**To:** County Clerk, County of Los Angeles  
12400 East Imperial Highway  
Room 2001  
Norwalk, CA 92650

LOS ANGELES, COUNTY CLERK

**Subject:** Filing of Notice of Determination in Compliance With Section 21152 of the Public Resources Code

**Name of Project:** Carson Stormwater and Runoff Capture Project

**Project Location:** The project is located in the premises of Carriage Crest Park, located at 23800 Figueroa Street in the City of Carson.

**Project Description:** The Project proposes to capture all dry-weather runoff from a nearby storm drain, County Project No. 1201, and the first flush of stormwater to reduce the transport of pollutants downstream in Wilmington Drain and Machado Lake. The proposed project includes the following components:

1. An underground stormwater storage facility with a maximum capacity of 17 acre-feet at the Carriage Crest Park;
2. A storm drain diversion system with a maximum intake of 30 cubic feet per second (cfs), including a rubber dam or a drop inlet structure and diversion pipelines;
3. Pretreatment devices, such as hydrodynamic separators or nutrient baffle boxes to remove gross solids;
4. A dewatering system to the sanitary sewer for further treatment at the Joint Water Pollution Control Plant (JWPCP) at a maximum nightly discharge rate of 20 cfs, including a pump station and a discharge pipeline, and
5. A return pipeline back to the existing downstream storm drain.

The Project will require a maximum excavation area of 1.5 acre to a depth of 28 feet and maximum removal of approximately 35,000 cubic yards of soil from the park to accommodate construction of the stormwater collection system.

**Contact Person:** Julio Gonzalez, Senior Engineering Technician  
310.952.1761 ext. 1822, JGonzale@carson.ca.us

This is to advise that on June 20, 2017, the City of Carson approved the above project and made the following determinations regarding the project:

1. The project will not have a significant effect on the environment.
2. A Negative Declaration was prepared for this project pursuant to the provisions of the California Environmental Quality Act.

The adopted Negative Declaration is available to the general public at the City of Carson, Public Works Department, 701 E. Carson Street Carson, CA 90745.

Date: 6.20.2017

  
Julio Gonzalez  
Senior Engineering Technician  
Engineering Services Division

SCH # 2017041058



# NEGATIVE DECLARATION

PROPOSED

FINAL

**Name of Project:** Carson Stormwater and Runoff Capture Project

**Project Location:** The project is located in the premises of Carriage Crest Park, located at 23800 Figueroa Street in the City of Carson.

**Entity or Person**

**Undertaking Project:** City of Carson, Public Works Department, 701 E. Carson Street Carson, CA 90745

**Project Description:** The Project proposes to capture all dry-weather runoff from a nearby storm drain, County Project No. 1201, and the first flush of stormwater to reduce the transport of pollutants downstream in Wilmington Drain and Machado Lake. The proposed project includes the following components:

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5. A return pipeline back to the existing downstream storm drain.

The Project will require a maximum excavation area of 1.5 acre to a depth of 28 feet and maximum removal of approximately 35,000 cubic yards of soil from the park to accommodate construction of the stormwater collection system.

**Findings:** The project will not have a significant effect on the environment. On the basis of the whole record, the City finds that there is no substantial evidence that the project will have a significant effect on the environment and that this Negative Declaration reflects the judgment of the City of Carson.

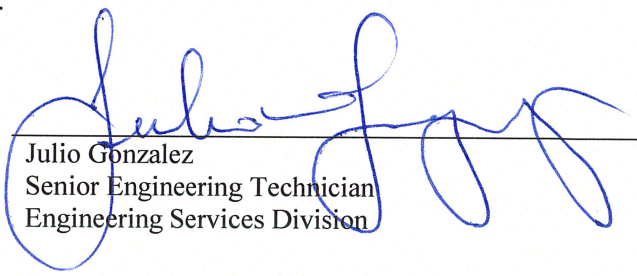
**Initial Study:** An Initial Study of this project was undertaken and prepared in accordance with the Local Procedures Implementing the California Environmental Quality Act (CEQA) as adopted by the City of Carson for the purpose of ascertaining whether this project might have a significant effect on the environment. A copy of the Initial Study is attached hereto and incorporated herein by reference. The Initial Study documents the reasons supporting the above findings.

**Mitigation Measures:** The following mitigation measures have been included in the project to avoid potentially significant effects:

No mitigation measures are required for this project.

Date:

6.20.2017

  
Julio Gonzalez  
Senior Engineering Technician  
Engineering Services Division



# NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION

# COPY

This serves as the City of Carson's Notice of Intent to adopt an Initial Study/Negative Declaration for the below described project, prepared in accordance with the California Environmental Quality Act (CEQA), CEQA Guidelines, and local implementation procedures.

**Name of Project:** Carson Stormwater and Runoff Capture Project

**Project Location:** The project the premises of Carriage Crest Park, located at 23800 Figueroa Street in the City of Carson.

**Lead Agency:** City of Carson, Public Works Department, 701 E. Carson Street Carson, CA 90745

**Project Description:** The Project proposes to capture all dry-weather runoff from a nearby storm drain, County Project No. 1201, and the first flush of stormwater to reduce the transport of pollutants downstream in Wilmington Drain and Machado Lake. The proposed project includes the following components:

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5. A return pipeline back to the existing downstream storm drain.

The Project will require a maximum excavation area of 1.5 acre to a depth of 28 feet and maximum removal of approximately 35,000 cubic yards of soil from the park to accommodate construction of the stormwater collection system.

**NOTICE IS HEREBY GIVEN THAT** The City proposes to adopt a Negative Declaration for the above-referenced project. Such Negative Declaration is based upon the finding that, the project will not have a significant effect on the environment. The reasons to support such finding are documented by an Initial Study prepared by the Sanitation Districts of Los Angeles County on behalf of the City.

Copies of the Initial Study and the proposed Negative Declaration are available for review at the following locations:

- City of Carson website: [www.carson.ca.us](http://www.carson.ca.us)
- City of Carson Public Library, 151 East Carson Street, Carson, CA 90745
- City of Carson City Hall Engineering Counter, 701 East Carson Street, Carson, CA 90745

Written comments regarding the proposed Negative Declaration must be received prior to 5:30 p.m. on the last day of the 30-day public review/comment period (May 24, 2017). All correspondence and any questions regarding the Negative Declaration should be directed to the following City staff:

**NAME:** Julio Gonzalez  
**TITLE:** Senior Engineering Technician  
**ADDRESS:** City of Carson  
 Public Works Department  
 701 East Carson Street  
 Carson, California 90745  
**PHONE:** 310.952.1761 ext. 1822  
**EMAIL:** JGonzale@carson.ca.us

ORIGINAL FILED  
APR 24 2017  
LOS ANGELES, COUNTY CLERK

Date: 4.19.2017  
  
 Julio Gonzalez  
 Senior Engineering Technician  
 Engineering Services Division



## NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION

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The Project will require a maximum excavation area of 1.5 acre to a depth of 28 feet and maximum removal of approximately 35,000 cubic yards of soil from the park to accommodate construction of the stormwater collection system.

**NOTICE IS HEREBY GIVEN THAT** The City proposes to adopt a Negative Declaration for the above-referenced project. Such Negative Declaration is based upon the finding that, the project will not have a significant effect on the environment. The reasons to support such finding are documented by an Initial Study prepared by the Sanitation Districts of Los Angeles County on behalf of the City.

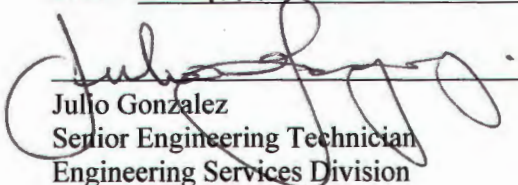
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**NAME:** Julio Gonzalez  
**TITLE:** Senior Engineering Technician  
**ADDRESS:** City of Carson  
Public Works Department  
701 East Carson Street  
Carson, California 90745  
**PHONE:** 310.952.1761 ext. 1822  
**EMAIL:** JGonzale@carson.ca.us

Date: 4.19.2017

  
Julio Gonzalez  
Senior Engineering Technician  
Engineering Services Division



# NEGATIVE DECLARATION

**PROPOSED**

**FINAL**

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**Project Location:** The project the premises of Carriage Crest Park, located at 23800 Figueroa Street in the City of Carson.

**Entity or Person**

**Undertaking Project:** City of Carson, Public Works Department, 701 E. Carson Street Carson, CA 90745

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The Project will require a maximum excavation area of 1.5 acre to a depth of 28 feet and maximum removal of approximately 35,000 cubic yards of soil from the park to accommodate construction of the stormwater collection system.


**Findings:** The project will not have a significant effect on the environment. On the basis of the whole record, the City finds that there is no substantial evidence that the project will have a significant effect on the environment and that this Negative Declaration reflects the judgment of the City of Carson.

**Initial Study:** An Initial Study of this project was undertaken and prepared in accordance with the Local Procedures Implementing the California Environmental Quality Act (CEQA) as adopted by the City of Carson for the purpose of ascertaining whether this project might have a significant effect on the environment. A copy of the Initial Study is attached hereto and incorporated herein by reference. The Initial Study documents the reasons supporting the above findings.

**Mitigation Measures:** The following mitigation measures have been included in the project to avoid potentially significant effects:

No mitigation measures are required for this project.

Date: 4.19.2017

  
Julio Gonzalez  
Senior Engineering Technician  
Engineering Services Division



# ENVIRONMENTAL IMPACT ASSESSMENT

**Name of Project:** Carson Stormwater and Runoff Capture Project

**Project Location:** The project the premises of Carriage Crest Park, located at 23800 Figueroa Street in the City of Carson.

**Entity or Person**

**Undertaking Project:** City of Carson, Public Works Department, 701 E. Carson Street Carson, CA 90745

**Project Description:** The Project proposes to capture all dry-weather runoff from a nearby storm drain, County Project No. 1201, and the first flush of stormwater to reduce the transport of pollutants downstream in Wilmington Drain and Machado Lake. The proposed project includes the following components:

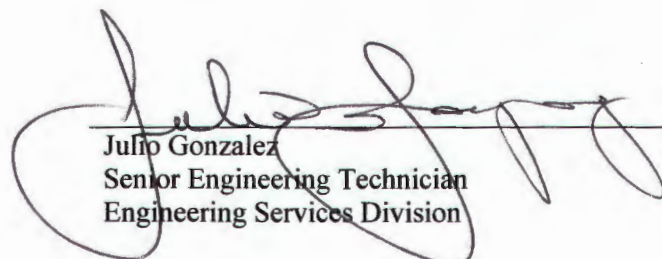
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5. A return pipeline back to the existing downstream storm drain.

The Project will require a maximum excavation area of 1.5 acre to a depth of 28 feet and maximum removal of approximately 35,000 cubic yards of soil from the park to accommodate construction of the stormwater collection system.

**Staff Determination:** The City of Carson's staff, relying on the Initial Study of this project prepared by the Sanitation Districts of Los Angeles County on behalf of the City, in accordance with the Local Procedures Implementing the California Environmental Quality Act (CEQA) as adopted by the City of Carson for the purpose of ascertaining whether the proposed project might have a significant effect on the environment, has reached the following conclusion:

1. The project will not have a significant effect on the environment; therefore, a Negative Declaration should be prepared.
2. The project, modified in accordance with certain mitigation measures set forth in the Initial Study, will not have a significant effect on the environment; therefore, a Mitigated Negative Declaration should be prepared.
3. The project may have a significant effect on the environment; therefore, an Environmental Impact Report should be prepared.

Date: 4.19.2017.

  
Julio Gonzalez  
Senior Engineering Technician  
Engineering Services Division



# INITIAL STUDY

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- 1. Project Title** **Carson Stormwater and Runoff Capture Project**
  
- 2. Description of Project**

The Project proposes to capture all dry-weather runoff from a nearby storm drain, County Project No. 1201, and the first flush of stormwater to reduce the transport of pollutants downstream in Wilmington Drain and Machado Lake. The proposed project includes the following components:

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The Project will require a maximum excavation area of 1.5 acre to a depth of 28 feet and maximum removal of approximately 35,000 cubic yards of soil from the park to accommodate construction of the stormwater collection system.
  
- 3. Lead Agency Name and Address**

City of Carson  
Public Works Department  
701 E. Carson Street Carson, CA 90745
  
- 4. Contact Person and Phone Number**

Julio Gonzalez, Senior Engineering Technician  
(310) 952-1761, extension 1822, JGonzale@carson.ca.us
  
- 5. Zoning**

The project is consistent with local zoning and general plans of the area.
  
- 6. Project Location**

The project is located at Carriage Crest Park, 23800 Figueroa Street in the City of Carson. Figure 1 shows the proposed project location and boundary.
  
- 7. Surrounding Land Uses and Setting**

The project is located in an urban area.
  
- 8. Public Agencies Which Must Approve or Give a Permit for the Project**

Los Angeles County Flood Control District, Los Angeles County Sanitation Districts, South Coast Air Quality Management District, California Department of Transportation, and City of Carson

9. *Other Organizations for Distribution or Review*

State Clearinghouse, State of California Toxic Substances Control Department, Los Angeles Regional Water Quality Control Board, California Environmental Protection Agency, California Department of Fish and Wildlife, Los Angeles County Department of Public Works Watershed Management Division



Figure 1. Proposed Project Location and Boundary



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**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Aesthetics                         | <input type="checkbox"/> Greenhouse Gas Emissions      | <input type="checkbox"/> Population / Housing               |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Public Services                    |
| <input type="checkbox"/> Air Quality                        | <input type="checkbox"/> Hydrology / Water Quality     | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Biological Resources               | <input type="checkbox"/> Land Use and Planning         | <input type="checkbox"/> Transportation / Traffic           |
| <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Mineral Resources             | <input type="checkbox"/> Utilities / Service Systems        |
| <input type="checkbox"/> Geology and Soils                  | <input type="checkbox"/> Noise                         | <input type="checkbox"/> Mandatory Findings of Significance |

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**DETERMINATION:**

On the basis of this Initial Study:

- The proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- The proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- The proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **ENVIRONMENTAL IMPACT REPORT** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **ENVIRONMENTAL IMPACT REPORT** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed on the proposed project, nothing further is required.

Date: 4-19-2017.

  
Julio Gonzalez  
Senior Engineering Technician  
Engineering Services Division

**EVALUATION OF ENVIRONMENTAL IMPACTS:**

CLASSIFICATION OF ENVIRONMENTAL IMPACTS

Potentially Significant Impact: There is substantial evidence that an effect is significant. An Environmental Impact Report is required. Significant effect on the environment means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself is not considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant. (§15382 CEQA Guidelines)

Potentially Significant Unless Mitigation Incorporated: This classification applies where the incorporation of mitigation measures has reduced an effect from a "Potentially Significant Impact" to a "Less Than Significant Impact."

Less Than Significant Impact: Less Than Significant effect on the environment means an effect which is not significant as defined by §15382 of the CEQA Guidelines.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

EXPLANATION:

- a-b. The project is not located near any scenic vistas or scenic resources. Moreover, the surrounding area is relatively flat and wholly urbanized with commercial, residential and institutional uses. The proposed project would not create above-ground structures that would obstruct views. Therefore, the proposed project will have no adverse impact upon a scenic vista or scenic resources.
- c. The project site comprises the southern portion of Carriage Crest Park, and is located on a commercial corridor bordered by a mix of retail, restaurants, and other commercial uses as well as single-family residences within an urban environment characterized mostly by low to mid-rise development. There are no formally designated scenic resources or historic buildings near the project site. The proposed project would require temporary disruption of the park and portions of the streetscape along Figueroa Street, including maximum excavation of approximately 35,000 cubic yards of soil for installation of infiltration vaults, removal of trees, and reconstruction of ballfields and landscaping. Any trees removed during construction will be replaced at a minimum ratio of 1:1. Any areas disturbed due to construction will be restored to pre-construction conditions. Therefore, the result of the project will have a less than significant impact on the Carriage Crest Park and surrounding areas.
- d. No light or glare impacts will occur as a result of the project or of its construction, which will be restricted to daytime hours.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forestland or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

EXPLANATION:

- a. The project site is located along a heavily traveled street and transportation corridor (Sepulveda Boulevard) and is surrounded by residences, commercial properties and other urban land uses. No agricultural uses or related activities currently occur on the site or within the surrounding area. Prime farmland, unique farmland, and farmland of statewide importance as defined in the Farmland Protection Policy Act (FPPA) are lands identified by appropriate state or local government agencies as containing valuable farmland soils. Urban areas are excluded from FPPA as described in 7 CFR 9 Part 658. The project will not result in conversion of any farmland to a non-agricultural use, as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation. The project site and surrounding areas are committed to urban development and are not unique or prime farmlands or farmlands of statewide importance.
- b–e. Since there are no agricultural crops, commercial timber stands, or prime, unique, or other farmlands of State or local importance in the vicinity of the project site, there is no conflict with the Williamson Act or any existing agricultural use. There is no forest land or timberland production in the City of Carson. There would be no impact to forest land resulting from the project.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutants concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

EXPLANATION:

- a. The proposed project, constructing a stormwater diversion and treatment system would comply with the South Coast Air Quality Management District's (SCAQMD) (2012 Air Quality Management Plan (AQMP)) because except for the construction process, the project would use only electric-powered pumps and controls, and would not generate emissions directly. The 2012 AQMP focuses on reducing fine particulate matter (PM2.5), as generated by pollutants such as nitrogen oxides (NOx), sulfur oxides (SOx), volatile organic compounds (VOC), directly-emitted PM2.5 (from diesel engines, etc.), and ammonia. Measures to implement the plan include controlling point-source emissions (from power plants, industrial sources, etc.), combustion sources (fireplaces, restaurant charbroilers, open burning) and indirect sources (emissions related to harbor and port activities). Both stationary and mobile emission sources are regulated under the Plan.

Generally, a project would be considered compliant with the AQMP if its emissions did not exceed applicable thresholds, or if it generated no emissions at all. The proposed project would generate direct emissions only during the construction phase, from off-road diesel-powered equipment and workers' vehicles. As explained in (b-c) below, all construction emissions are predicted to remain well under the SCAQMD thresholds of significance. As explained in Section VII *Greenhouse Gas Emissions* below, the energy consumption of the project's controls and pumps (and off-site greenhouse gas emissions from electric power generation) is also not anticipated to be significant. Accordingly, with both construction and operations emissions below thresholds, the proposed project would not conflict with the AQMP or affect its implementation.

- b-c. The proposed project is not expected to result in a measurable long-term increase in air pollutant emissions, since most of the project's emissions would be related to construction, and would cease at the end of the construction phase. Such emissions would be generated primarily from off-road diesel-powered equipment, as well as workers' passenger vehicles and light trucks, including respirable particulate matter (PM10), fine particulate matter (PM2.5), ozone (O<sub>3</sub>), carbon monoxide (CO), reactive organic gasses (ROG), nitrogen oxides (NOx), and sulfur dioxide (SO<sub>2</sub>).

The California Emissions Model (CalEEMod) was used to estimate emissions. The technical report, which includes output tables from this model, is included in Appendix A of this Initial Study and the overall results are shown in Table AQ-1 below. Construction of the proposed project would involve clearing and grubbing, excavation and grading, installing stormwater capture vaults, treatment system and pumps, restoring the finish grade, and aboveground improvements.

**TABLE AQ-1. Construction Emissions as Shown in Appendix A**

2018	ROG	NOx	CO	SO2	PM10	PM2.5
	lbs/day					
Total	4.16	40.23	34.25	0.05	12.13	3.31
Threshold	75	100	550	150	150	55
Over (Under)	(71)	(60)	(516)	(150)	(138)	(52)
Exceed Threshold (Yes or No)	No	No	No	No	No	No
Localized Construction Emissions Thresholds		87	1,611		37	13
Over (Under)		(47)	(1,577)		(25)	(10)
Exceed Threshold (Yes or No)		No	No		No	No

Emissions estimates indicate that the proposed project would not exceed SCAQMD regional thresholds for any regulated pollutant. Given the low volume of air pollutants that the project would generate, the temporary nature of such pollutant emissions, the proposed project would not cause or substantially contribute to an existing or projected air quality violation, would not generate pollutants in excess of standards, and would not result in a cumulative considerable net increase of any criteria pollutant.

- d. Certain residents, such as the very young, the elderly and those suffering from certain illnesses or disabilities, are particularly sensitive to air pollution and are considered sensitive receptors. In addition, active park users, such as participants in sporting events, can be sensitive air pollutant receptors due to increased respiratory rates. Land uses where sensitive air pollutant receptors congregate include homes, medical facilities, rest homes, convalescent care facilities, schools, day care centers, parks, and recreational areas. Residents of homes and long-term care facilities may be subject to both long-term/chronic and short-term/acute exposures to poor air quality, whereas park users are primarily at risk from acute exposure to air quality.

The proposed project is located in a City park, which is bordered by single-family homes on one side. However, as noted above in Table AQ-1, the project would generate relatively low emissions during construction, and would not be likely to affect sensitive receptors over the long-term. Given this low amount and the short-term nature of such pollutant generation, the primary concern for surrounding properties would be the nuisance caused by construction dust. APCD Rule 402 (Fugitive Dust) requires that dust generation be reduced with control measures, such as using water trucks to moisten exposed soils. Because project construction must comply with air quality regulations, including Rule 402, impacts on surrounding land uses are anticipated to be less than significant.

- e. Project construction equipment and activities, including diesel exhaust emissions, would generate odors. There may be situations where construction activity odors would be noticeable by persons at nearby uses, but these odors would not be unfamiliar or necessarily objectionable. In addition, these odors would be temporary and would dissipate rapidly from the source with an increase in distance. Long-term odors, which would be associated with operation of vehicles on the roadway, would be the same as for the existing conditions; their impacts would be less than significant.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

EXPLANATION:

- a-c. There are no special status plants or animals at the project site. The closest sighting of a special status plant or animal is approximately 3000 feet. One of the objectives of this project is to improve the quality of Machado Lake. Therefore, this project will have a positive effect on any plant or animal species that frequent the lake.
- d. The project will not interfere with any migratory movement or corridor, nor will it impede the use of native wildlife nursery sites.
- e-f. Any trees removed during construction will be replaced at the ratio of 1:1. The project will not conflict with any local policies or ordinances protecting biological resources, nor will it conflict with any Habitat Conservation Plans or Natural Community Conservation Plans.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

EXPLANATION:

a-d. A cultural resources study conducted by Paleo Solutions has determined that no historic structures are located on the project site itself. All workers involved in the performance or supervision of subsurface excavation at the project site will be trained to identify archaeological and paleontological resources. Should any historical or archaeological resources be discovered during construction activities, procedures outlined in Section 15064.5 of the CEQA guidelines will be implemented by the contractor. The project is located in areas that have already undergone significant disturbance and development. Therefore, the likelihood that any previously unknown archaeological or other cultural resources will be discovered on the site is remote.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
VI. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**EXPLANATION:**

- a. The proposed project would have no significant impact on the topography or ground surface relief features of the project area. There will be only temporary change (during excavation and construction) of the topography of the park to create the subsurface space needed for the stormwater capture facility. Once the improvements are installed, the original topography of the area of the proposed project will be restored to its previous condition. No significant amount of grading is expected to occur as a result of the project.
  - i) According to the City of Carson Hazard Mitigation Plan, several major active faults exist in Los Angeles County, including the San Andres, Newport Inglewood, Elsinore, San Jacinto, Whittier, and Norwalk. The Newport Inglewood Fault and the Palos Verdes Fault are considered to be the greatest potential threat to Carson, due to their proximity to the City.
 

The Newport-Inglewood Fault Zone is approximately five miles northwest of the City Carson and is expressed at the surface as a series of low, elongated hills extending from Newport to Beverly Hills, including Signal and Dominguez Hills. The Palos Verdes Fault, which traverses the southern portion of the south bay has two branches, the Cabrillo Fault and the Redondo Canyon Fault, which join the main fault at different points along the route. The Cabrillo Fault and the Redondo Canyon Fault are within two miles southeast and northwest of the City of Carson, respectively.

The length of the Newport-Inglewood fault zone is approximately 44 miles. Subsurface movement along the fault resulted in the 1933, magnitude 6.3, Long Beach earthquake, which caused significant damage to the City of Long Beach. Nevertheless, based on current available geologic information, no active faults are known to exist on or in the immediate vicinity of the project site. The project site is not located within an Alquist-Priolo Fault Zone for surface fault rupture hazards. Because there are no known active faults located on the project site, the potential for fault rupture on the site is low.
  - ii) As is typical of all of southern California, the project site is located in a seismically active region and is potentially subject to severe ground shaking generated by high seismic activity. However, as discussed previously, ground shaking caused by severe seismic activity is considered to be low due to the distant locations of active faults and the absence of the seismic activity from local faults according to historical data and other documented evidence.
  - iii) There are no above-ground proposed structures included as part of the proposed improvements. It is not anticipated that the project will result in unstable earth surfaces or increase the exposure of people or property to geologic or seismic hazards as no fill or significant structure is proposed.
  - iv) The City of Carson is relatively flat and so is the project site. Consequently, hazards such as slope instability, mudslides and landslides are not considered to be likely threats. The project is not located in an area susceptible to landslide or slope failure.



- b. The City of Carson is relatively flat and so is the project site. Consequently, hazards such as slope instability, mudslides and landslides are not considered to be likely threats. The project is not located in an area susceptible to landslide or slope failure. During project construction, the exposure of soils in open or excavated areas will temporarily increase the potential for soil erosion. Soil erosion could be caused either by water or wind, a situation which could be exacerbated during the rainy season (November 1 through April 1). Required compliance with the South Coast Air Quality Management District (SCAQMD) Rule 403 (Fugitive Dust) would reduce erosion due to wind to a less than significant level. Implementation of the required Storm Water Pollution Prevention Plan (SWPPP) would reduce erosion due to water to a less than significant level. Construction Plans shall specify measures for controlling erosion at the project site.
- c. Construction activities could potentially cause erosion and soil loss from excavation, stockpiling, and other earthmoving activities. The City would be required to prepare an implement an SWPPP and an associated erosion control plan to ensure that construction of the proposed project would not result in significant soil erosion. Best Management Practices (BMPs) would also be implemented by the contractor during construction to limit soil erosion. In addition, after construction is completed, the existing surface conditions would be restored. Therefore, impact would be less than significant.
- d. The project site is not located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code.
- e. The project does not involve construction of any dwellings where wastewater would be generated. Consequently, there is no need for septic tanks due to the project. The project involves construction of a stormwater capture system which will ultimately place the water into a local sewer to be treated at the JWPCP.

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	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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VII. GREENHOUSE GAS EMISSIONS. Would the project:

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?      | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

“Greenhouse gases” (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as “global warming.” These greenhouse gases contribute to an increase in the temperature of the earth by allowing incoming short wavelength visible sunlight to penetrate the atmosphere, while restricting outgoing terrestrial long-wavelength heat radiation from exiting the atmosphere. The principal greenhouse gases (GHGs) include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). Collectively, GHGs are measured as carbon dioxide “equivalents” (CO<sub>2</sub>e); mass emissions of CO<sub>2</sub> are typically expressed in metric tons (MT).

Fossil-fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second-largest contributors of GHG emissions with about one-fourth of total emissions. According to climate scientists, California and the rest of the developed world would have to cut emissions by 80 percent from today’s levels to stabilize the amount of CO<sub>2</sub> in the atmosphere and prevent the most severe effects of global climate change.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statues and executive orders (EO) include Assembly Bill (AB) 32, Senate Bill (SB) 1368, Executive Order (EO) S-03-05, EO S-20-06 and EO S-01-07. Of these, AB 32, the California Global Warming Solutions Act of 2006, mandates that California's GHG emissions be reduced to 1990 levels by 2020, and tasks the California Air Resources Board (CARB) with regulating GHG emissions as well as coordinating with other state agencies to implement AB 32's reduction goals. Executive Order S-3-05 provides a more long-range goal and requires an 80 percent reduction of GHGs from 1990 levels by 2050. On a per-capita basis, that means reducing annual emissions of 14 MTs of CO<sub>2</sub> equivalent for every person in California down to approximately 10 MTs per person by 2020.

The CARB's 2008 Climate Change Scoping Plan explains that reducing GHG emissions to 1990 levels means cutting approximately 30 percent from business-as-usual emissions levels projected for 2020, or about 15 percent from today's levels. "Business as usual" generally describes a GHG emissions scenario that reflects the levels that would result if land development proceeded without implementing GHG-reduction measures. The Scoping Plan, and updates – the most recent in 2014 – set forth an array of strategies for reducing GHG emissions, categorized by economic sector. These strategies include policies and programs to be adopted by local agencies; however, they do not set numeric "bright-line" GHG thresholds.

A late-2015 California Supreme Court decision, *Center for Biological Diversity, et al. v. California Department of Fish and Wildlife*, (2015) 62 Cal 4th 204, reh'g. den. Feb. 17, 2016), addressed the Newhall Ranch (Los Angeles County) project's use of the "business-as-usual" method of determining greenhouse gas impact significance, where that EIR had used the Scoping Plan's 29% reduction goal as a project-level threshold. The Court criticized the document for failing to explain how a quantitative statewide goal, based on one set of underlying land-use assumptions, could be directly applied to an individual project, at a particular location, where underlying land use assumptions might be different. Stating that "[t]he analytical gap left by the EIR's failure to establish, through substantial evidence and reasoned explanation, a quantitative equivalence between the Scoping Plan's statewide comparison, and the EIR's own project-level comparison deprived the EIR of its 'sufficiency as an informative document,'" the Court opined that if an EIR uses the Scoping Plan's statewide measure of emissions reduction, it must fully substantiate its rationale for doing so. Specifically, the Court held that this method not be used to set a hypothetical environmental baseline, and then to compare a proposed project's emissions to that baseline. Further, the Court stated that agencies may determine whether a project is consistent with AB 32's goals by evaluating whether a project complies with relevant regulations or regulatory programs, including local Climate Action Plans, which are designed to reduce GHG emissions. Agencies may also set numeric thresholds similar to those established for other air pollutants.

Water management is one of the economic sectors targeted by the Scoping Plan:

California's 2009 Water Conservation Act (Senate Bill x7-7) specifically addresses urban and agricultural water conservation. The Act's key urban provision established an aggressive statewide goal to reduce per capita water use by 20 percent by 2020. To date, 400 urban water agencies have prepared water management plans, which cover close to 80 percent of California's population. The State has also set ambitious goals for development of alternative water sources such as recycled water and stormwater.

The State Water Resources Control Board (SWRCB) adopted recycled water and stormwater goals through a stakeholder-driven process. Recycled water usage is to be increased above the 2002 usage levels by at least one million acre-feet per year by 2020 and by at least two million acre feet per year by 2030. *Stormwater usage is to increase above the 2007 usage levels by at least 500,000 acre-feet per year by 2020 and by at least one million acre-feet per year by 2030 (emphasis added)*. Grant and loan programs have provided over \$1.15 billion for recycling and stormwater capture infrastructure, and projects are coming online.

The SCAQMD sets forth a GHG threshold only for industrial facilities (10,000 MT CO<sub>2</sub>eq per year), but neither it nor the City of Carson have adopted specific GHG emission thresholds for GHG emissions for other sources.

#### EXPLANATION:

- a–b. **Construction Phase.** Project construction would generate approximately 997 MTs of CO<sub>2</sub> emissions from the use of construction equipment and from worker commute trips. As shown in Appendix A, the highest

net increase in temporary GHG emissions from on-road mobile source emissions and on-site construction equipment relative to the threshold would be below 10,000 metric tons per year. The GHG emissions from the project construction phase are less than significant.

**Operational Phase.** The proposed project would use two to three electric pumps for transferring stormwater to JWPCP. Under the two pump configuration, the annual emissions will be 13.30 MT CO<sub>2</sub>. The three pump configuration would emit 6.65 MT CO<sub>2</sub>. Under either configuration the amount of GHG produced is less than the GHG threshold of 10,000MT CO<sub>2</sub>. Therefore, the impact is less than significant.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## EXPLANATION:

- a. Soil sampling results, as shown in Appendix C, found the presence of pesticides at some sample sites at a depth of up to 8 feet exceeding the California Total Threshold Limit Concentration. Any soil excavated as part of any construction activities at the subject site shall be tested for pesticides in accordance with the waste profiling and removed per a soils management plan, and disposed of at an appropriate landfill. All other construction-related materials, including construction debris/waste, would be transported and disposed of in accordance with applicable codes and regulations. During project operation, the proposed project would include the storage and disposal of accumulated trash and debris collected as part of the project's pretreatment captured runoff. However, the collected materials would not pose a particular hazard nor require hazardous waste disposal to be performed as part of routine maintenance of these stormwater pretreatment devices.
- b. The project site is currently occupied as Carriage Crest Park, a community park. The project, which includes the installation of a passive stormwater capture and retention facility does not involve the use or storage of hazardous materials. As stated above, all construction-related materials including any contaminated soils would be transported and disposed of in accordance with applicable codes and regulations. To minimize potential damage to any existing utilities, the contractor would not be allowed to excavate until all utility owners are notified, and all substructures are clearly identified. As the proposed project would capture and store runoff and reduce the transport of pollutants downstream, operation would not create a significant hazard to the public or environment involving the release of hazardous materials. No reasonable foreseeable upset or accident conditions that could involve the release of hazardous materials into the environment are anticipated.
- c. 232<sup>nd</sup> Place Elementary School is approximately ½ mile northeast of the project. As discussed in the Air Quality section above, operation of construction equipment creates air contaminant emissions. However, none of these emissions would be generated at levels that are considered hazardous. Construction of the proposed project would involve the excavation and transport of earth and other construction-related materials (e.g. concrete, piping, project components, and equipment). All such materials, including construction debris/waste, would be transported and disposed of in accordance with applicable codes and regulations. As noted previously, operation of the proposed project would not involve hazardous emissions or materials. The proposed project would capture and store runoff and operate passively. As such, no hazardous materials impacts to schools are anticipated.
- d. The project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.
- e-f. The project is not located near an airport or private airstrip. The closest airport is the Torrance Airport which is approximately 5 miles from the project site. The site is not located in either the Clear Zone or the Approach Safety Zone. Therefore, the project would not result in an airport-related safety hazard for people residing or working in the project area.
- g. The proposed project would not impair or physically interfere with an adopted emergency response plan or a local, state, or federal agency's emergency evacuation plan, except possibly for short-term periods during construction of the proposed project. As mentioned above, all construction activities would be carried out in accordance with all City and Los Angeles County Fire Department (LACFD) emergency access requirements and access would be maintained during construction activities. As such, no significant emergency access impacts are expected. Once operational, the proposed project would operate passively underground, and therefore its operation would not interfere with emergency response or evacuation plans.
- h. The proposed project would not of itself expose significant numbers of people or structures to wildland fire risk because the project area is located in an urban environment and not near fire-prone wildland.

		POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
IX.	HYDROLOGY AND WATER QUALITY. Would the project:				
a)	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j)	Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

EXPLANATION:

- a. The project would not violate water quality standards or waste discharge requirements, because (and as explained in more detail below):
  - (1) The project is intended to capture, not discharge pollutants (particularly metals and organic compounds); and
  - (2) All construction work would be subject to federal and state regulations protecting water quality, and thus be required to incorporate water-quality-protection best management practices (BMPs) that would minimize construction-related pollutant runoff (see below for examples).

Specifically, the federal Clean Water Act (CWA) assigns jurisdiction to federal, state, and local agencies over specific activities that could affect stream channels, wetlands, and other water bodies. CWA Section 402(p) sets forth the National Pollutant Discharge Elimination System (NPDES) stormwater permitting program, administered by the California Regional Water Quality Control Board, Los Angeles Region (RWQCB) under delegation by the United States Environmental Protection Agency (U.S. EPA). Where projects would affect an area larger than one acre, the project proponent must prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), which details the appropriate Best Management Practices (BMPs) for reducing or eliminating pollutant discharge from the construction area. BMPs for the construction phase of the project would include, but not be limited to:

  1. Good housekeeping: implementing proper storage and containment and properly cleaning all leaks from equipment and vehicles;
  2. Non-stormwater management: properly washing vehicles in contained areas and minimizing irrigation runoff;
  3. Inspection, maintenance and repair of BMPs to ensure continued efficacy.
- b. The project is designed to capture stormwater runoff. Therefore, the project will not deplete groundwater supplies or interfere with groundwater recharge.
- c. The proposed project would not adversely affect the existing drainage pattern of the area nor cause siltation or erosion, although it would divert a portion of stormwater flows from an existing storm drain into a capture facility. The local drainage pattern would essentially remain as it exists now, since the project would not construct new drainage channels. The project consists primarily of augmenting existing stormwater facilities within a fully-developed urban setting, where water flowing into storm drains does not flow over erosion-prone undeveloped land. As such, significant siltation or erosion would not be expected to occur.
- d. The proposed stormwater capture project would not substantially affect the area's existing drainage pattern or increase the rate or amount of surface runoff, causing flooding on or off-site, because any detained water would be stored in a retention basin prior to sewer discharge.
- e. The proposed project would not contribute substantial amounts of runoff water exceeding stormwater drainage system capacity, simply because the project itself is designed to capture stormwater inflows, moderating the amount of stormwater that the drainage system conveys now. Construction runoff would be controlled as described in the project's SWPPP and would not be expected to contribute polluted runoff to the storm drain system.
- f. The proposed project would not otherwise substantially degrade water quality, primarily because the BMPs would minimize runoff water contamination during project construction.
- g-h. The proposed project would not construct house or other structures, thus would not directly subject housing or structures to flood hazards.
  - i. The project would not be expected to expose people or structures to significant risk of loss, injury, or death involving flooding since the area of the project is at a very low risk for flooding generally, and the project itself would not impede flood flows through the stormwater conveyance system.
  - j. The proposed project would not directly expose people or structures to inundation by seiche or tsunami because 1) there are no large bodies of water nearby to generate a seiche and the project would not create such a water body; and 2) the project site is 6 miles east of the Pacific Ocean. The project would not expose people or structures to mudflow, since the project site is located within a relatively flat urban environment.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

EXPLANATION:

- a-b. The project involves construction of a stormwater capture system underground an existing park, which will ultimately place the water into a local sewer to be treated at JWPCP. As all pre-project conditions will be restored upon completion, the project will not have any impacts on land use, zoning, or the physical arrangement of the community.
- c. No habitat conservation plan or natural community conservation plan applies to the site.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

EXPLANATION:

- a-b. The project would not involve the use or depletion of any mineral resources in the area.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
XII. NOISE. Would the proposal result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of people to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

EXPLANATION:

- a. Noise impacts resulting from the project can be considered either short-term construction related or long-term operational related. Short-term construction noise would be regulated by noise control provisions in the City's Municipal Code while operational noise impacts are considered less than significant since both pumps and motors will be installed below grade.
- b. The stormwater runoff and capture facility is a below-ground facility and does not include operational aspects that will generate excessive groundborne vibration or groundborne noise levels.
- c. Operation noise impacts could result from the proposed pumping system chosen for the project. One of the recommended systems and the one which would potentially produce the most noise, includes a 3-pump configuration in which the pump station will have three duty pumps, each capable of pumping 50 percent of the peak design flow. However, to minimize noise from pump operations while providing for security, pumps and motors will be installed below grade within a secure wet well. Consequently, noise from pumping operations will be less than significant.
- d. Temporary or periodic increases in ambient noise levels in the project vicinity will occur as a result of construction activities. However, provisions in the City's municipal code regulate the permitted hours of construction activities. Conformance with these regulations will reduce periodic increases in ambient noise levels to less than significant.
- e-f. The project is not located near an airport or private airstrip. The closest airport is the Torrance Airport which is approximately 5 miles from the project site. Therefore, the project would not result expose people to excessive noise areas in the vicinity of an airport.



	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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XIII. POPULATION AND HOUSING. Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

EXPLANATION:

- a. The project involves water quality infrastructure improvements. This action would not directly increase the population or housing of the City of Carson.
- b-c. The project involves a stormwater runoff capture facility. As such, the project would not result in the loss of residential units. Therefore, the proposed project would not displace any residents and would have no associated impact.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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XIV. PUBLIC SERVICES.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

EXPLANATION:

- a.i Construction of the proposed project could have the potential to reduce access for emergency vehicles near construction activities. However, all construction activities would be carried out in accordance with all applicable City and/or LACFD emergency access standards. Emergency vehicle access would be maintained throughout the construction period. Operation of the proposed project would be passive and largely underground, and therefore would not require additional fire protection services, facilities, or

equipment. Once the improvements are installed, the original topography of the area of the proposed project will be restored to its previous condition. No adverse physical impacts would occur to fire services.

- a.ii Construction of the proposed project could have the potential to reduce access for emergency vehicles near construction areas. However, as explained above, all construction activities would be carried out in accordance with all applicable City and/or Carson Station Sheriff's Department emergency access standards, and emergency vehicle access would be maintained throughout construction. Operation of the proposed project would be passive and would not require additional police protection. No adverse physical impacts would occur relative to police services.
- a.iii The project does not involve the development of residences and would not significantly induce growth. Consequently, the amount of people served by the local school system would not increase as a result of the project. Therefore, the project would have no impact to schools.
- a.iv The project would not introduce any new population that would create additional demands on existing or planned park facilities. However, the project would temporarily displace a portion of Carriage Crest Park from recreational use during construction. The stormwater capture facility would be installed at the southern portion of the park temporarily removing approximately 114,000 square feet of park open space. After construction, the existing park use and park amenities would be restored since new landscaping consisting mostly of turf will be installed over the project facility. Hence, temporary construction activities would result in less than significant impacts related to the short term loss of recreational use within a portion of the Carriage Crest Park.
- a.v The project would involve periodic inspection and/or maintenance of facilities at the park site. However, no substantial increase in City services would be required above and beyond those already provided by the City. The City will be responsible for the operation and maintenance of the diversion structure within the channel and will comply with permit requirements from the Los Angeles County Flood Control District (LACFCD) to ensure LACFCD's operation and maintenance flood control facilities will not be impeded.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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XV. RECREATION.

- |  |                          |                          |                                     |                                     |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?                         | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

EXPLANATION:

- The proposed project includes the construction and operation of an underground stormwater capture facility, which would not result in a measurable demand for parks and recreation services. As such, implementation of the proposed project is not anticipated to cause an increase in the use of existing neighborhood and regional parks and other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and thus, no impact to parks and recreational facilities would result from the proposed project.
- The proposed project would restrict recreational use within a portion of Carriage Crest Park during construction of the project. With completion of the construction phase, the proposed project will operate passively with only minimal maintenance occurring on-site at Carriage Crest Park. Park use will resume as before the project, functioning mostly as recreational open space landscaped with turf and accommodating such park amenities as walkways and athletic fields. As demonstrated throughout this Initial Study, the development of these project features would not result in a physical adverse effect on the surrounding environment. Therefore, the proposed project would result in a less than significant impact with respect to recreational facilities.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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XVI. TRANSPORTATION/TRAFFIC. Would the project:

- |   |                          |                          |                                     |                          |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
b) Conflict with an applicable congestion management program, including, but not limited to level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**EXPLANATION:**

- a. The proposed project would result in temporary traffic and circulation impacts during construction activities as shown in Appendix B. Construction worker vehicle trips to and from the project site, as well as delivery truck trips of modular components to and from the project site, would increase traffic levels on surrounding streets in the area. The project construction in total will generate approximately 5,000 one-way truck trips. The planned hauling is approximately 40 days, operated with 8 trucks and 6 hours each day. The planned mobilization and demolition is approximately 173 days. During peak of the project construction, there will be approximately 48 crew/trips at the site. The additional trips will not significantly affect the intersections level of service (LOS), which will be maintained at the City required minimum LOS “D”. In, addition, construction trucks will not be using the intersection (Figueroa Street and Sepulveda Boulevard) during peak hours, to worsen level of service. However, given the relatively short duration of the hauling phase, combined with the nature and intensity of the proposed worker vehicle and delivery truck traffic, project construction traffic is not anticipated to be substantial, and would cease at the completion of construction activities. All vehicles would park at the Carriage Crest Park parking lot or job site, so there would be no change in street parking due to construction activities. A Construction Traffic Management Plan will be coordinated with the responsible agencies. Such a management plan would comply with local ordinances and policies for performance of the circulation system and standards of the City and county when applicable. Alternate access to adjoining properties will be maintained at all times. Pre-construction conditions will be restored and impacts will be temporary (only during construction). If any proposed transportation of heavy construction equipment and/or materials requires use of oversized-transport vehicles on State highways, a transportation permit from California Department of Transportation will be obtained. Therefore, transportation-related impacts will be less than significant.
- b. The Congestion Management Program (CMP) is a state-mandated program enacted by the State legislature to address impacts that urban congestion has on local communities and the region as a whole. New projects located in the City must comply with the requirements set forth in the CMP. These requirements include the provision that all freeway segments where a project could add 150 or more trips in each direction during peak hours must be evaluated. The guidelines also require evaluation of all designated CMP roadway intersections where a project could add 50 or more trips during peak hours. The proposed project would not result in a net increase of more than 30 trips during with either the A.M. or P.M. peak hours. Thus, the project would not generate 150 or more trips to a freeway segment or 50

trips to a CMP roadway intersection. Accordingly, less than significant impact to CMP designated facilities would occur with project implementation.

- c. The project is not an air traffic-related use and would not result in the disruption or change of air traffic patterns in the area. Thus, no impact would occur in this regard.
- d. The project would not involve the permanent construction or modification of traffic-related improvements. Additionally, the project would not involve the construction of any uses that would be considered incompatible with existing roadways. However, per standard construction traffic procedures, truck ingress and egress would be controlled by a flagman, or other equivalent means determined appropriate by the City, which would minimize the potential for vehicular hazards associated with truck activity on and adjacent to the project site. Thus, impacts in this regard would be less than significant.
- e. The proposed project would not hinder emergency access in the area, since peak project-related traffic would be associated with temporary construction and delivery truck trips on Figueroa Street. As mentioned above, all construction activities would be carried out in accordance with all City and LACFD emergency access requirements and access would be maintained during construction activities. As such, no significant emergency access impacts are expected.
- f. During construction, public transit stops may be temporarily moved and bicycle routes and pedestrian traffic may be temporarily diverted to protect rider and pedestrian safety. The project will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

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	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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**XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:**

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

EXPLANATION:

- a. The proposed project would not result in changes to facilities or operations at existing wastewater treatment facilities, as proposed improvements are intended to capture existing stormwater runoff for treatment of contaminants to improve water quality. The captured water would be ultimately treated at the JWPCP, which has capacity to treat the captured flow. No changes to the plant treatment requirements would result. Therefore, the proposed project would not have the potential to exceed wastewater treatment requirements, and no impact to wastewater treatment requirements of the applicable Regional Water Quality Control Board would occur.
- b. As stated earlier, the proposed project is the construction of a new stormwater capture and retention facility and does not include the construction of any new developments that would generate wastewater, solid waste, or increase the demand for water supplies. However, the project does capture water that will be discharged to the sewer. The discharge will occur when there is sufficient capacity in the sewer line. Therefore, the proposed project would not require the construction of new wastewater treatment facilities or expansion of existing facilities. As such, there will be no impacts.
- c. This area discharges into Wilmington Drain which subsequently discharges into Lake Machado. The objective of this project is to improve the quality of Machado Lake. Construction of the proposed project would not be expected to increase stormwater runoff at the project site, but in fact, reduce stormwater runoff. Stormwater from the capture facility will ultimately be given secondary treatment at the JWPCP and discharged to the Pacific Ocean.
- d. No new or expanded water entitlements would be required with implementation of the project.
- e. The captured stormwater will be treated at JWPCP. JWPCP has capacity to adequately handle the amount of water generated by the project. Therefore, the project will have a less than significant impact on the capacity at JWPCP.
- f. Excavated soil from the site will be disposed at an appropriate landfill site. However, the amount of debris generated during project construction is not expected to significantly impact landfill capacities. Additionally, operation of the stormwater capture facility would generate minimal solid waste as part of its pretreatment activities. Therefore, there would be a less than significant impact to solid waste disposal.
- g. Disposal of waste materials generated during construction will comply with all local, state, and federal requirements for integrated waste management and solid waste disposal. As stated above, operation of the project will not exceed the standards or capacity of local disposal facilities. Therefore, no impacts related to compliance with solid waste statutes and regulations will occur.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.

- |    |   |                          |                          |                          |                                     |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) | Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

EXPLANATION:

- a. There are no sensitive fish or wildlife habitat areas in the vicinity of the proposed project. The project is also located within an area of low biological resource value since the surrounding area is considered urbanized and highly disturbed with little to no native vegetation to support any sensitive species. Therefore, no degradation of the environment or any adverse impacts to any sensitive plant or animal species will result from the project.

The Cultural Resources Assessment prepared for the project notes that Carriage Crest Park has no sensitive for paleontological, archeological, and cultural (including Native American) resources. The area of the proposed project is fully developed with a paved parking lot, concrete walkways, modern buildings, and manicured sports field, yielding no visible native soils. However, prior to the start of any earth-disturbing activities associated with the Project, all workers involved in the performance or supervision of subsurface excavation at the project site will be trained to identify archaeological and paleontological resources. Should any historical or archaeological resources be discovered during construction activities, procedures outlined in Section 15064.5 of the CEQA guidelines will be implemented by the contractor.

- b. Cumulative impacts are limited to the construction activities (e.g., noise, dust, temporary drainage, traffic detours and temporary access, etc.) for this project, and would be minimized by following the City's noise ordinance; use of BMPs, including the use of water trucks; and following City and LACFD emergency access requirements during all construction activities.

- c. Any potentially adverse effects on human beings associated with the project will be limited to project construction. Short-term exposure to potential noise, air and water pollution associated with heavy construction vehicles may be expected. However, implementation of best management practices and project design features during the construction phase will minimize the potential adverse impacts associated with project construction to a less than significant impact. Appropriate measures and management practices such as limiting construction periods to those permitted by the municipal code, and coordinating construction activities with other service agencies will be employed during construction, as necessary. Otherwise, the project will not have any long-term adverse impacts on human beings. Based on the analysis in this Initial Study, the project will not present substantial adverse effects on human beings.

#### MITIGATION

No mitigation measures are required for this project.



## **RESPONSE TO COMMENTS**

### **California Department of Transportation**

Comment 1: The comment notes that any transportation of heavy construction equipment and/or materials requiring use of oversized vehicles on State highways will require a Caltrans transportation permit. Also, Caltrans recommends that large size truck trips be limited to off-peak periods. Further, Caltrans wants the City of Carson (City) to be mindful that the project needs to be designed to discharge clean run-off water. The comment is noted, and the City will require the contractor to acquire all necessary permits from Caltrans. Also, the City will require large size truck trips be limited to off-peak commute periods to the extent feasible. Further, the project is designed to pretreat the run-off water and further treat it at the Joint Water Pollution Control Plant prior to ocean discharge.

### **California Department of Toxic Substances Control**

Comment 1: The comment notes that the Negative Declaration (ND) should identify and determine whether current or historic uses at the project site may have resulted in any release of hazardous substances. The comment is noted, and based on search of Federal, State, and local environmental databases, the only two closest sites with any cleanup history are located within 500 feet south of the project site, and the contaminants of concern related to those sites are diesel and gasoline. Based on the Soil Characterization Investigation Report (Report, attached) conducted by the City's consultant for the project area within Carriage Crest Park, dated May 26, 2017, there is no evidence of diesel or gasoline at the project site. Furthermore, the Report shows higher levels of pesticides and metals generally at one-foot depth below ground surface (bgs) and two isolated locations at ten-foot depth bgs, which is an indication that the contamination might have been associated with historic grading activities rather than historic uses.

Comment 2: The comment notes that the ND states that there are several structures that exist currently onsite. Also, if planned activities include structures/building modifications/demolitions, lead-based paints or products, mercury and asbestos containing materials (ACMs) should be addressed in accordance with all applicable and relevant laws and regulations. The comment is noted, and the project does not involve any activities that include structures/building modifications/demolitions, lead-based paints or products, mercury and ACMs.

Comment 3: The comment notes that if the project plan includes discharging wastewater to a storm drain, the City may be required to obtain an NPDES permit from the overseeing Regional Water Quality Control Board (RWQCB). The comment is noted, the project plan does not include discharging wastewater to the storm drain.

Comment 4: The comment notes that the contaminated areas of the site should be fully characterized and properly remediated prior to the initiation of any construction activities and overseen by appropriate regulatory agencies. Residual contaminants left in place should be compared with the Regional Screening Levels (RSLs), which should be used for cleaning up the site. Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentration (STLC) are the criteria for waste classification. The comment is noted, and the Report has fully characterized the construction area within the Park. The result shows isolated areas at one foot bgs and 10 feet bgs where pesticides and metals concentration exceeds TTLC or STCL. As such, a soils management plan will be prepared to delineate the hazardous waste areas and provide for proper disposal procedures. The soils management plan will also delineate areas

## RESPONSE TO COMMENTS

where soil may be left in-place or reused onsite for backfill, namely areas where concentrations of pesticides and metals are within the Regional Screening Levels established by the United States Environmental Protection Agency or the background level as determined by DTSC for arsenic.

Comment 5: The comment notes that as the high concentrations of pesticides are detected in the deeper soil, the historic operations at the project site needs to be evaluated. If soil is imported to the site during or prior to the development of the Carriage Crest Park in the past, priority pollutants should be evaluated. If regular application of pesticides were occurring at the site, higher concentrations would be detected only in surface soil. The comment is noted. See Comment 1 above regarding potential contamination from historic grading activities. Additionally, as discussed in the Report, no debris or other indications of dumping of environmental concern were observed in soils.

Comment 6: The comment notes that aerially deposited lead is generally encountered in unpaved or formerly unpaved areas adjoining older roads. As the project site is located along a heavily traveled street and transportation corridor, this issue should be addressed. The comment is noted, and lead testing of excavated soil will be conducted for the project site within roadways, and the appropriate actions, including disposal at hazardous waste sites if necessary, will be followed in accordance with all applicable laws and regulations.

Comment 7: The comment notes that evaluation, proper investigation and mitigation, if necessary, on onsite areas with current or historic PCB-containing transformers. The comment is noted, and there has been no evidence of current or historic PCB-containing transformers on the project site.

Comment 8: The comment notes that if soil contamination is suspected or observed in the project area, excavated soil should be sampled prior to export/disposal. If the soil is contaminated, it should be disposed of properly in accordance with all applicable and relevant laws and regulations. If the project proposes to import soil to backfill the excavated areas, proper evaluation and/or sampling should be conducted to make sure that the imported soil is free of contamination. The comment is noted, and the disposal procedures for any excavated soil will be guided by the results of the Report and the soils management plan and follow all applicable laws and regulations. Proper evaluation will also be conducted for imported soil.

Comment 9: The comment notes that if during construction/demolition of the project, soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the ND should identify how any required investigation and/or remediation will be conducted. The comment is noted, and the Report has been completed to determine the extent of contamination. Soil excavation during construction will be guided by the results of the Report and the soils management plan.

### **Native American Heritage Commission (NAHC) Dated March 14, 2017**

Comment 1: The comment notes that as of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 require public agencies to consult with Native American tribes identified by the NAHC for the purpose of mitigating impacts to tribal cultural resources. The comment is noted, and the City has contacted all Native American tribes identified by the NAHC within the project area. The Gabrieleño

## RESPONSE TO COMMENTS

Band of Mission Indians – Kizh Nation was the only tribe that responded. Their response was in a letter dated April 26, 2017. As further detailed below, the City has initiated consultation with the Gabrieleño Band of Mission Indians – Kizh Nation.

### **Native American Heritage Commission (NAHC) Dated April 27, 2017**

Comments 1: The comment notes there are potential impacts to Cultural Resources and Tribal Cultural Resources from excavation of 35,000 cubic yards of soil to a depth of 28 feet over 1.5 acres. Further, the comment suggests mitigation for inadvertent finds of Cultural Resources and Tribal Cultural Resources developed in consultation with culturally affiliated tribes should be included in the environmental documents for the project. The comment is noted, and a consultation has begun with the Gabrieleño Band of Mission Indians – Kizh Nation per the below response to comment. Records of Native American consultation are attached.

Comment 2: The comment notes that there is no Tribal Cultural Resources section or subsection in the Initial Study/Environmental Checklist as per California Natural Resources Agency (2016) “Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form.” The comment is noted, and the section is included below in “Errata.” Comment 3: The comment notes that there is no documentation of government-to-government consultation by the lead agency under AB 52 with Native American Tribes. The comment is noted, and a consultation has begun with the Gabrieleño Band of Mission Indians – Kizh Nation per the below response to comment. Records of Native American consultation are attached.

Comment 4: The comment notes that Cultural Resources and Tribal Cultural Resources assessments to identify the likelihood of cultural resources are not documented. Also, the comment suggests that these should adequately assess the existence and significance of cultural resources and tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources. Further, the comment suggests lack of documented resources does not preclude inadvertent finds. The comment is noted, and a Cultural Resources Study for this project was conducted by Paleo Solutions, Inc. in January 2017. Further, a consultation has begun with the Gabrieleño Band of Mission Indians – Kizh Nation per the below response to comment. Records of Native American consultation are attached.

Comment 5: The comment notes that mitigation for inadvertent finds of Archaeological Resources, Cultural Resources, Tribal Cultural Resources, and Human Remains are missing. Standard mitigation measures should be included in the document. The comment is noted, and a consultation has begun with the Gabrieleño Band of Mission Indians – Kizh Nation per the below response to comment. All workers involved in the performance or supervision of subsurface excavation at the project site will be qualified to identify archaeological and paleontological resources. Should any historical or archaeological resources be discovered during construction activities, procedures outlined in Section 15064.5 of the CEQA guidelines will be implemented by the construction contractor. The project is located in areas that have already undergone significant disturbance and development. Therefore, the likelihood that any previously unknown archaeological or other cultural resources will be discovered on the site is remote.

Comment 6: The comment notes that there are no mitigation measures specifically addressing Tribal Cultural Resources separately. Also, mitigation measures must take Tribal Resources into consideration

## RESPONSE TO COMMENTS

as required under AB 52, with or without consultation occurring. Further, the comment notes that mitigation language for archaeological resources is not always appropriate for or similar to measures specifically for handling Tribal Cultural Resources. The comment is noted, and a cultural resources study conducted by Paleo Solutions, Inc. has determined that no cultural resources were observed on the project site itself. All workers involved in the performance or supervision of subsurface excavation at the project site will be qualified to identify archaeological and paleontological resources. Should any historical or archaeological resources be discovered during construction activities, procedures outlined in Section 15064.5 of the CEQA guidelines will be implemented by the construction contractor. The project is located in areas that have already undergone significant disturbance and development. Therefore, the likelihood that any previously unknown archaeological or other cultural resources will be discovered on the site is remote.

### **Gabrieleño Band of Mission Indians – Kizh Nation**

Comment 1: The comment notes a written request for consultation regarding the Carson Stormwater and Runoff Capture Project Located: Crest Park Los Angeles pursuant to Public Resources Code § 21080.3.1, subd. (d). The comment is noted, and on May 2, 2017 the City initiated consultation with the Gabrieleño Band of Mission Indians – Kizh Nation through telephone contact. A consultation meeting was held on May 24, 2017. Both parties agree to continue consultation the week of May 29, 2017 to reach an amicable solution.

### **County of Los Angeles Department of Public Works**

Comment 1.1: The comment notes if rubber dam's operation includes impounding water inside the existing storm drain system, it could have adverse hydraulic effect and impact to the storm drain system and surrounding community. The comment asks whether the above statement accurately reflects the rubber dam's impact and indicates further discussion, justification, and clarification would be needed. The comment is noted, and as discussed in a meeting with Public Works staff on May 9, 2017, the rubber dam would be designed to impound and divert stormwater to an underground storage facility and be equipped with an automatic and fail-safe system that deflates the rubber dam at high flow rates to prevent any flooding. Hydraulic analyses demonstrating no flooding impact were submitted to Public Works on May 25, 2017 as part of the Los Angeles County Flood Control District Permit (Flood Permit) application process.

Comment 1.2: The comment notes there are no checked boxes or finding for part c. The comment is noted, and the finding for part c is included below in "Errata."

Comments 2.1 through 3.4: The comments relate to the Project's Preliminary Engineering Design Report and the Flood Permit and are not relevant to this document. They will be addressed as part of the Flood Permit application process.

**RESPONSE TO COMMENTS**

**ERRATA**

**Revision of Section “XII. NOISE”**

Section XII. Part c) is revised to show a checked box for the finding of “Less than Significant Impact.”

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Addition of Section “XVIII. Tribal Cultural Resources”**

Section XVIII. Tribal Cultural Resources is added to the Initial Study prior to the section entitled “Mandatory Findings of Significance.” The Section, “Mandatory Findings of Significance” is now section number XIX.

	POTENTIALLY SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
XVIII. Tribal Cultural Resources.				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historic Resources or in the local register of historical resources as defined in the Public Resources Code.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of the Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## RESPONSE TO COMMENTS

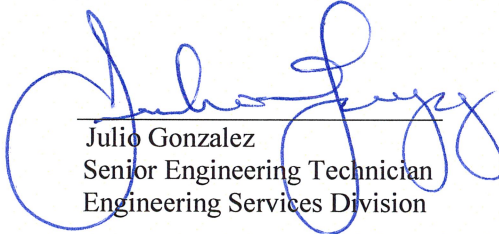
### EXPLANATION:

a –b Tribal consultation with the Gabrieleño Band of Mission Indians – Kizh Nation regarding potential cultural sites within the project area was conducted on May 24, 2017. Chairman Andrew Salas informed the City and Los Angeles County Sanitation Districts that the entire area extending for miles in all directions of the project had the potential to contain traditional Native American sites. Although a specific site within the project area was not identified by him, he maintained that the entire area, extending east and even to the coast might contain trade goods, or artifacts associated with their trade routes.

A cultural resources study conducted by Paleo Solutions, Inc. has determined that no cultural resources were observed on the project site itself. All workers involved in the performance or supervision of subsurface excavation at the project site will be qualified to identify archaeological and paleontological resources. Should any historical or archaeological resources be discovered during construction activities, procedures outlined in Section 15064.5 of the CEQA guidelines will be implemented by the construction contractor. The project is located in areas that have already undergone significant disturbance and development. Therefore, the likelihood that any previously unknown archaeological or other cultural resources will be discovered on the site is remote.

The addition of the section on “Tribal Cultural Resources” does not change the findings of the Initial Study.

Date: 6.20.2017

  
Julio Gonzalez  
Senior Engineering Technician  
Engineering Services Division

## **LETTERS ATTACHED**

1. California Department of Transportation, dated May 18, 2017
2. California Department of Toxic Substances Control, dated May 9, 2017
3. Native American Heritage Commission, dated March 14, 2017
4. Records of Native American Consultation in Los Angeles County Sanitation Districts' Letters, dated March 31, 2017
5. Native American Heritage Commission, dated April 27, 2017
6. Gabrieleño Band of Mission Indians – Kizh Nation, dated April 26, 2017
7. County of Los Angeles Department of Public Works, dated May 23, 2017

**DEPARTMENT OF TRANSPORTATION**  
DISTRICT 7-OFFICE OF REGIONAL PLANNING  
100 S. MAIN STREET, MS 16  
LOS ANGELES, CA 90012  
PHONE (213) 897-0067  
FAX (213) 897-1337  
www.dot.ca.gov



*Making Conservation  
a California Way of Life.*

May 18, 2017

Mr. Julio Gonzalez  
City of Carson  
701 E. Carson Street  
Carson, CA, 90745

RE: Carson Stormwater and Runoff  
Vic: LA-110 / PM: 5.435  
GTS# 07-LA-2017-00889  
SCH# 2017041058

Dear Mr. Gonzalez:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The project consists of a proposal to capture all dry-weather runoff from a nearby storm drain and the first flush of stormwater to reduce the transport of pollutants downstream in Wilmington Drain and Machado Lake.

Please note the nearest State facility is Interstate 110, Caltrans does not anticipate any adverse impacts on State Highway System as a result of this project.

Any transportation of heavy construction equipment and/or materials requiring use of oversized-transport vehicles on State highways will require a Caltrans transportation permit. Caltrans recommends that large size truck trips be limited to off-peak commute periods.

Also, storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Be mindful that the project needs to be designed to discharge clean run-off water.

If you have any questions or concerns regarding these comments, please contact project coordinator, Severin Martinez at (213) 897-0067 or [severin.martinez@dot.ca.gov](mailto:severin.martinez@dot.ca.gov) and refer to GTS# 07-LA-2017-00889.

Sincerely,

A handwritten signature in blue ink that reads "Dianna Watson".

DIANNA WATSON  
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse





## Department of Toxic Substances Control

**Matthew Rodriguez**  
Secretary for  
Environmental Protection

Barbara A. Lee, Director  
5796 Corporate Avenue  
Cypress, California 90630

**Edmund G. Brown Jr.**  
Governor

May 9, 2017

Mr. Julio Gonzalez  
Senior Engineering Technician  
City of Carson  
Public Works Department  
70 I East Carson Street  
Carson, California 90745

### INITIAL STUDY AND PROPOSED MITIGATED NEGATIVE DECLARATION (ND) FOR CARSON STORMWATER AND RUNOFF CAPTURE PROJECT (CARRIAGE CREST PARK) (SCH# 2017041058)

Dear Mr. Gonzalez:

The Department of Toxic Substances Control (DTSC) has reviewed the subject ND. The following project description is stated in the ND: "The Project proposes to capture all dry-weather runoff from a nearby storm drain, County Project No. 1201, and the first flush of stormwater to reduce the transport of pollutants downstream in Wilmington Drain and Machado Lake."

Based on the review of the submitted document DTSC has the following comments:

1. The ND should identify and determine whether current or historic uses at the project site may have resulted in any release of hazardous wastes/substances. If there are any recognized environmental conditions in the project area, then proper investigation, sampling and remedial actions overseen by the appropriate regulatory agencies should be conducted prior to the new development or any construction.
2. The appendices to the ND states that there are several structures that exist currently onsite. If planned activities include structures/building modifications/demolitions, lead-based paints or products, mercury, and asbestos containing materials (ACMs) should be addressed in accordance with all applicable and relevant laws and regulations.

3. If the project plans include discharging wastewater to a storm drain, you may be required to obtain an NPDES permit from the overseeing Regional Water Quality Control Board (RWQCB).
4. The ND states, "Soil sampling results, as shown in Appendix C, found the presence of pesticides at some sample sites at a depth of up to 8 feet exceeding the California Total Threshold Limit Concentration. Any soil excavated as part of any construction activities at the subject site shall be tested for pesticides in accordance with the waste profiling and removed per a soils management plan, and disposed of at an appropriate landfill." The contaminated areas of the site should be fully characterized and properly remediated prior to the initiation of any construction activities and overseen by appropriate regulatory agencies. Residual contaminants left in place should be compared with the Regional Screening Levels (RSLs). Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentration (STLC) are the criteria for waste classification. RSLs should be used for cleaning up the site.
5. As the high concentrations of pesticides are detected in the deeper soil, the historic operations at the project site needs to be evaluated. If soil is imported to the site during or prior to the development of the Carriage Crest Park in the past, priority pollutants should be evaluated. If regular application of pesticides were occurring at the site, higher concentrations would be detected only in surface soil. Please refer comment #4 for further evaluation and/or clean up.
6. Aerially deposited lead (ADL) is generally encountered in unpaved or formerly unpaved areas adjoining older roads, primarily as a result of deposition from historical vehicle emissions when gasoline contained lead. As the project site is located along a heavily traveled street and transportation corridor (Sepulveda Boulevard & Figueroa Street), this issue should be addressed in accordance with all applicable and relevant laws and regulations.
7. DTSC recommends evaluation, proper investigation and mitigation, if necessary, on onsite areas with current or historic PCB-containing transformers.
8. The ND states, "The Project will require a maximum excavation area of 1.5 acre to a depth of 28 feet and maximum removal of approximately 35,000 cubic yards of soil from the park to accommodate construction of the stormwater collection system." If soil contamination is suspected or observed in the project area, then excavated soil should be sampled prior to export/disposal. If the soil is contaminated, it should be disposed of properly in accordance with all applicable and relevant laws and regulations. If the project proposes to import soil to backfill the excavated areas, proper evaluation and/or sampling should be conducted to make sure that the imported soil is free of contamination.

Mr. Julio Gonzalez

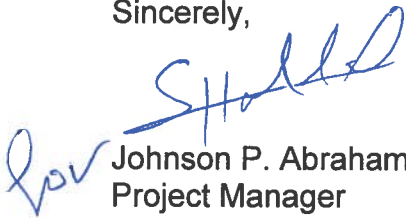
May 9, 2017

Page 3

9. If during construction/demolition of the project, soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the ND should identify how any required investigation and/or remediation will be conducted, and the appropriate government agency to provide regulatory oversight.

If you have any questions regarding this letter, please contact me at (714) 484-5380 or email at [Johnson.Abraham@dtsc.ca.gov](mailto:Johnson.Abraham@dtsc.ca.gov).

Sincerely,



Johnson P. Abraham

Project Manager

Brownfields Restoration and School Evaluation Branch

Brownfields and Environmental Restoration Program - Cypress

kl/sh/ja

cc: Governor's Office of Planning and Research (via e-mail)  
State Clearinghouse  
P.O. Box 3044  
Sacramento, California 95812-3044  
[State.clearinghouse@opr.ca.gov](mailto:State.clearinghouse@opr.ca.gov)

Mr. Guenther W. Moskat, Chief (via e-mail)  
Planning and Environmental Analysis Section  
CEQA Tracking Center  
Department of Toxic Substances Control  
[Guenther.Moskat@dtsc.ca.gov](mailto:Guenther.Moskat@dtsc.ca.gov)

Mr. Dave Kereazis (via e-mail)  
Office of Planning & Environmental Analysis  
Department of Toxic Substances Control  
[Dave.Kereazis@dtsc.ca.gov](mailto:Dave.Kereazis@dtsc.ca.gov)

Mr. Shahir Haddad, Chief (via e-mail)  
Schools Evaluation and Brownfields Cleanup  
Brownfields and Environmental Restoration Program - Cypress  
[Shahir.Haddad@dtsc.ca.gov](mailto:Shahir.Haddad@dtsc.ca.gov)

CEQA# 2017041058

**NATIVE AMERICAN HERITAGE COMMISSION**

1550 Harbor Blvd., Suite 100  
West Sacramento, CA 95691  
(916) 373-3710  
(916) 373-6471 FAX



March 14, 2017

Marvin Holmes  
Sanitation Districts of Los Angeles County

Sent by E-mail: mholmes@lacsdc.org

RE: Proposed LACSD TAF No. 2, Carriage Crest Park Project, City of Carson; Torrance USGS Quadrangle, Los Angeles County, California

Dear Mr. Holmes:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties. Please note that the intent of the reference codes below is to avoid or mitigate impacts to tribal cultural resources, as defined, for California Environmental Quality Act (CEQA) projects under AB-52.

As of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 **require public agencies** to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

**Within 14 days** of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.3.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.3.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
  - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
  - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and
  - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:
  - Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. A search of the SFL was completed for the project with negative results.
4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: [gayle.totton@nahc.ca.gov](mailto:gayle.totton@nahc.ca.gov).

Sincerely,



for Gayle Totton, M.A., PhD.  
Associate Governmental Program Analyst

Native American Heritage Commission  
Tribal Consultation List  
Los Angeles County  
3/14/2017

**Gabrieleno Band of Mission  
Indians - Kizh Nation**

Andrew Salas, Chairperson  
P.O. Box 393 Gabrieleno  
Covina, CA, 91723  
Phone: (626) 926 - 4131  
gabrielenoindians@yahoo.com

**Gabrieleno/Tongva San Gabriel  
Band of Mission Indians**

Anthony Morales, Chairperson  
P.O. Box 693 Gabrieleno  
San Gabriel, CA, 91778  
Phone: (626) 483 - 3564  
Fax: (626)286-1262  
GTTribalcouncil@aol.com

**Gabrielino /Tongva Nation**

Sandonne Goad, Chairperson  
106 1/2 Judge John Aiso St., Gabrielino  
#231  
Los Angeles, CA, 90012  
Phone: (951)807-0479  
sgoad@gabrielino-tongva.com

**Gabrielino Tongva Indians of  
California Tribal Council**

Robert Dorame, Chairperson  
P.O. Box 490 Gabrielino  
Bellflower, CA, 90707  
Phone: (562) 761 - 6417  
Fax: (562) 761-6417  
gtongva@gmail.com

**Gabrielino-Tongva Tribe**

Linda Candelaria, Co-Chairperson  
1999 Avenue of the Stars, Suite Gabrielino  
1100  
Los Angeles, CA, 90067  
Phone: (626) 676 - 1184

**Soboba Band of Luiseno  
Indians**

Rosemary Morillo, Chairperson  
P. O. Box 487 Cahuilla  
San Jacinto, CA, 92583 Luiseno  
Phone: (951) 654 - 2765  
Fax: (951) 654-4198  
rmorillo@soboba-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 6097.96 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed LACSD TAF No. 2, Carriage Crest Park Project, Los Angeles County.



# COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400  
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998  
Telephone: (562) 699-7411, FAX: (562) 699-5422  
www.lacsd.org

GRACE ROBINSON HYDE  
Chief Engineer and General Manager

March 31, 2017

Andrew Salas, Chairperson  
Gabieleno Band of Mission  
Indian – Kizh Nation  
P.O. Box 393  
Covina, CA 91723

Dear Mr. Salas:

## **Carson Stormwater and Runoff Capture Project**

In compliance with Assembly Bill 52 (AB 52) and Public Resources Code § 21080.3.1, the Los Angeles County Sanitation Districts (LACSD) and the City of Carson are writing to inform you of a proposed project that your Tribe may have potential interest in. The LACSD with the City of Carson, are proposing construction of a 13-acre-foot underground stormwater storage and treatment facility at Carriage Crest Park in the City of Carson (Project). A Sacred Lands Files Search and Native American Contact List request was filed with the Native American Heritage Commission, and you were identified as a Native American contact that may have information regarding Tribal resources in the Project Area.

The Project will require an excavation area of approximately one acre to a depth of 20 feet removing approximately 26,000 cubic yards of soil for construction of the stormwater collection system. For your reference, we have attached a map that shows the Project Area and boundaries.

Pursuant to PRC § 21080.3.1 (b), if the Tribe wishes to consult on the Project you should respond in writing within thirty (30) days from the receipt of this letter to request consultation with the LACSD. We invite any information that you may have regarding Tribal resources or concerns within or near the Project so that we may address your concerns, or take measures to avoid or minimize project effects to any Tribal resources you can identify for us. You may contact me at the address listed above, or at [mholmes@lacsd.org](mailto:mholmes@lacsd.org) or by telephone at (562) 908-4288, extension 2729. The LACSD appreciates your time and attention, and looks forward to any response that you may have. Thank you very much.

Very truly yours,

Marvin Holmes  
Project Engineer  
Planning Section

MH:pb  
Enclosures

DOC# 4105837





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Sent To	Andrew Salas, Chairperson
Street, Apt. No., or PO Box No.	Gabrieleno Band of Mission Indian- Kizh Nation
City, State, ZIP+4	P.O. Box 393 Covina, CA 91723



# COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400  
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998  
Telephone: (562) 699-7411, FAX: (562) 699-5422  
[www.lacsd.org](http://www.lacsd.org)

GRACE ROBINSON HYDE  
Chief Engineer and General Manager

March 31, 2017

Anthony Morales, Chairperson  
Gabieleno /Tongva San Gabriel  
Band of Mission Indians  
P.O. Box 693  
San Gabriel, CA 91778

Dear Mr. Morales:

### **Carson Stormwater and Runoff Capture Project**

In compliance with Assembly Bill 52 (AB 52) and Public Resources Code § 21080.3.1, the Los Angeles County Sanitation Districts (LACSD) and the City of Carson are writing to inform you of a proposed project that your Tribe may have potential interest in. The LACSD with the City of Carson, are proposing construction of a 13-acre-foot underground stormwater storage and treatment facility at Carriage Crest Park in the City of Carson (Project). A Sacred Lands Files Search and Native American Contact List request was filed with the Native American Heritage Commission, and you were identified as a Native American contact that may have information regarding Tribal resources in the Project Area.

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Very truly yours,

Marvin Holmes  
Project Engineer  
Planning Section

MH:pb

Enclosures




# Project Area at Carriage Crest Park

0 200 400 800 Feet

Complete Items 1, 2, and 3.  
 Print your name and address on the reverse so that we can return the card to you.  
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Anthony Morales, Chairperson  
 Gabrieleno /Tongva San Gabriel  
 Band of Mission Indians  
 P.O. Box 693  
 San Gabriel, CA 91778

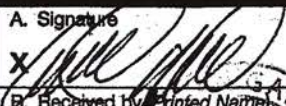


9590 9402 2558 6306 3567 39

2. Article Number (Transfer from service label)

7009 2820 0000 7049 6895

A. Signature

X 

Agent  
 Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1?  Yes  
If YES, enter delivery address below  No

3. Service Type

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 Adult Signature Restricted Delivery  
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 Collect on Delivery  
 Collect on Delivery Restricted Delivery  
 Insured Mail  
 Insured Mail Restricted Delivery (over \$500)

Priority Mail Express®  
 Registered Mail™  
 Registered Mail Restricted Delivery  
 Return Receipt for Merchandise  
 Signature Confirmation™  
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Restricted Delivery Fee (Endorsement Required)			
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Sent To

Anthony Morales, Chairperson  
 Gabrieleno /Tongva San Gabriel  
 Band of Mission Indians  
 P.O. Box 693  
 San Gabriel, CA 91778

PS Form 3800, August 2006 See Reverse for Instructions



# COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400  
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998  
Telephone: (562) 699-7411, FAX: (562) 699-5422  
www.lacsd.org

GRACE ROBINSON HYDE  
Chief Engineer and General Manager

March 30, 2017

Sandonne Goad, Chairperson  
Gabrieleno /Tongva Nation  
106 ½ Judge John Aiso Street, #231  
Los Angeles, CA 90012

Dear Ms. Goad:

## **Carson Stormwater and Runoff Capture Project**

In compliance with Assembly Bill 52 (AB 52) and Public Resources Code § 21080.3.1, the Los Angeles County Sanitation Districts (LACSD) and the City of Carson are writing to inform you of a proposed project that your Tribe may have potential interest in. The LACSD with the City of Carson, are proposing construction of a 13-acre-foot underground stormwater storage and treatment facility at Carriage Crest Park in the City of Carson (Project). A Sacred Lands Files Search and Native American Contact List request was filed with the Native American Heritage Commission, and you were identified as a Native American contact that may have information regarding Tribal resources in the Project Area.

The Project will require an excavation area of approximately one acre to a depth of 20 feet removing approximately 26,000 cubic yards of soil for construction of the stormwater collection system. For your reference, we have attached a map that shows the Project Area and boundaries.

Pursuant to PRC § 21080.3.1 (b), if the Tribe wishes to consult on the Project you should respond in writing within thirty (30) days from the receipt of this letter to request consultation with the LACSD. We invite any information that you may have regarding Tribal resources or concerns within or near the Project so that we may address your concerns, or take measures to avoid or minimize project effects to any Tribal resources you can identify for us. You may contact me at the address listed above, or at [mholmes@lacsd.org](mailto:mholmes@lacsd.org) or by telephone at (562) 908-4288, extension 2729. The LACSD appreciates your time and attention, and looks forward to any response that you may have. Thank you very much.

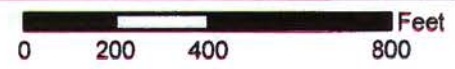
Very truly yours,

Marvin Holmes  
Project Engineer  
Planning Section

MH:pb  
Enclosures




# Project Area at Carriage Crest Park



Complete items 1, 2, and 3.  
 Print your name and address on the reverse so that we can return the card to you.  
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Sandonne Goad, Chairperson  
 Gabrieleno /Tongva Nation  
 106 1/2 Judge John Aiso Street, #231  
 Los Angeles, CA 900 12

  
 9590 9402 2558 6306 3567 22

2. Article Number (Transfer from service label)

7009 2820 0000 7049 6888

A. Signature  Agent  
 X   Addressee  
 B. Received by (Printed Name) E. Goad C. Date of Delivery 4/3  
 D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type

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 Certified Mail®  Registered Mail Restricted Delivery  
 Certified Mail Restricted Delivery  Return Receipt for Merchandise  
 Collect on Delivery  Signature Confirmation™  
 Collect on Delivery Restricted Delivery  Signature Confirmation Restricted Delivery  
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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 6.56

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MAR 31 2017

Sent To

Sandonne Goad, Chairperson  
 Gabrieleno /Tongva Nation  
 106 1/2 Judge John Aiso Street, #231  
 Los Angeles, CA 900 12

PS Form 3800 August 2006 See Reverse for Instructions



# COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400  
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998  
Telephone: (562) 699-7411, FAX: (562) 699-5422  
[www.lacsd.org](http://www.lacsd.org)

GRACE ROBINSON HYDE  
Chief Engineer and General Manager

March 31, 2017

Robert Dorame, Chairperson  
Gabrieleno Tongva Indians of  
California Tribal Council  
P.O. Box 490  
Bellflower, CA 90707

Dear Mr. Dorame:

## **Carson Stormwater and Runoff Capture Project**

In compliance with Assembly Bill 52 (AB 52) and Public Resources Code § 21080.3.1, the Los Angeles County Sanitation Districts (LACSD) and the City of Carson are writing to inform you of a proposed project that your Tribe may have potential interest in. The LACSD with the City of Carson, are proposing construction of a 13-acre-foot underground stormwater storage and treatment facility at Carriage Crest Park in the City of Carson (Project). A Sacred Lands Files Search and Native American Contact List request was filed with the Native American Heritage Commission, and you were identified as a Native American contact that may have information regarding Tribal resources in the Project Area.

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Very truly yours,

Marvin Holmes  
Project Engineer  
Planning Section

MH:pb  
Enclosures

DOC# 4105874





# Project Area at Carriage Crest Park

0 200 400 800 Feet



# COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400  
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998  
Telephone: (562) 699-7411, FAX: (562) 699-5422  
[www.lacsd.org](http://www.lacsd.org)

GRACE ROBINSON HYDE  
Chief Engineer and General Manager

March 31, 2017

Rosemary Morillo, Chairperson  
Soboba Band of Luiseno Indians  
P.O. Box 487  
San Jacinto, CA 92583

Dear Ms. Morillo:

## **Carson Stormwater and Runoff Capture Project**

In compliance with Assembly Bill 52 (AB 52) and Public Resources Code § 21080.3.1, the Los Angeles County Sanitation Districts (LACSD) and the City of Carson are writing to inform you of a proposed project that your Tribe may have potential interest in. The LACSD with the City of Carson, are proposing construction of a 13-acre-foot underground stormwater storage and treatment facility at Carriage Crest Park in the City of Carson (Project). A Sacred Lands Files Search and Native American Contact List request was filed with the Native American Heritage Commission, and you were identified as a Native American contact that may have information regarding Tribal resources in the Project Area.

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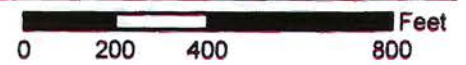
Very truly yours,

Marvin Holmes  
Project Engineer  
Planning Section

MH:pb  
Enclosures




# Project Area at Carriage Crest Park



Complete items 1, 2, and 3.  
 Print your name and address on the reverse so that we can return the card to you.  
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Rosemary Morillo, Chairperson  
 Soboba Band of Luiseno Indians  
 P.O. Box 487  
 San Jacinto, CA 9258



9590 9402 2558 6306 3567 53

2. Article Number (Transfer from service label)  
 7009 2820 0000 7049 6918

A. Signature  
 X *Billy Bantiste*  Agent  Address

B. Received by (Printed Name) *B BANTISTE* C. Date of Delivery *9-3*

D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type

<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®
<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™
<input checked="" type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery
<input type="checkbox"/> Certified Mail Restricted Delivery	<input type="checkbox"/> Return Receipt for Merchandise
<input type="checkbox"/> Collect on Delivery	<input checked="" type="checkbox"/> Signature Confirmation
<input type="checkbox"/> Collect on Delivery Restricted Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery
<input type="checkbox"/> Insured Mail	
<input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	

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Restricted Delivery Fee (Endorsement Required)		
<b>Total Postage &amp; Fees</b>	<b>\$ 6.56</b>	<b>MAR 31 2017</b>

7009 2820 0000 7049 6918

Sent To  
 Rosemary Morillo, Chairperson  
 Soboba Band of Luiseno Indians  
 Street, Apt. No., or PO Box No. P.O. Box 487  
 City, State, ZIP+4 San Jacinto, CA 9258

PS Form 3826, August 2006 See Reverse for Instructions



# COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400  
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998  
Telephone: (562) 699-7411, FAX: (562) 699-5422  
[www.lacsd.org](http://www.lacsd.org)

GRACE ROBINSON HYDE  
Chief Engineer and General Manager

March 31, 2017

Linda Candelaria, Co-Chairperson  
Gabrieleno-Tongva Tribe  
1999 Avenue of the Stars, Suite 1100  
Los Angeles, CA 90067

Dear Ms. Candelaria:

### **Carson Stormwater and Runoff Capture Project**

In compliance with Assembly Bill 52 (AB 52) and Public Resources Code § 21080.3.1, the Los Angeles County Sanitation Districts (LACSD) and the City of Carson are writing to inform you of a proposed project that your Tribe may have potential interest in. The LACSD with the City of Carson, are proposing construction of a 13-acre-foot underground stormwater storage and treatment facility at Carriage Crest Park in the City of Carson (Project). A Sacred Lands Files Search and Native American Contact List request was filed with the Native American Heritage Commission, and you were identified as a Native American contact that may have information regarding Tribal resources in the Project Area.

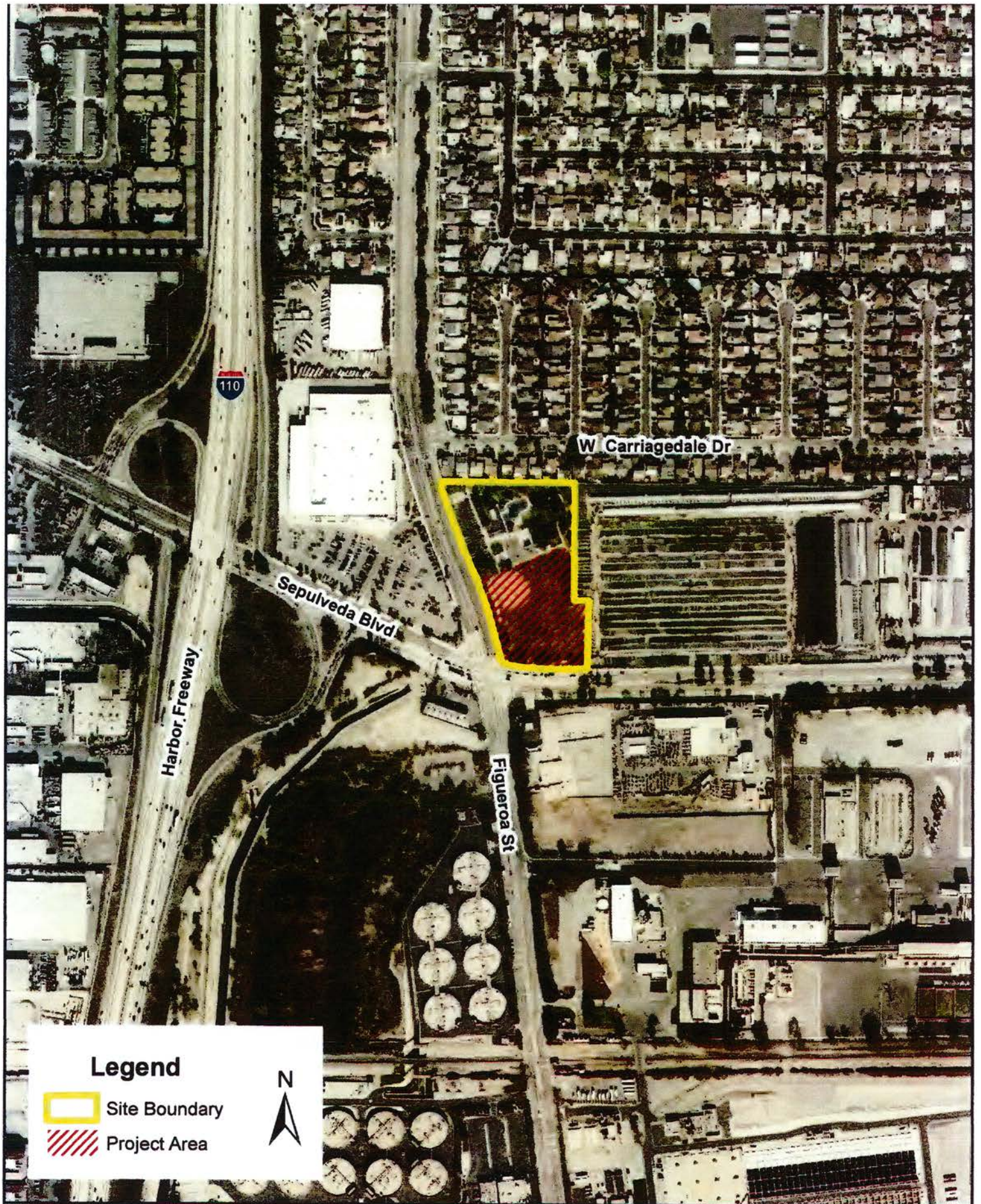
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Pursuant to PRC § 21080.3.1 (b), if the Tribe wishes to consult on the Project you should respond in writing within thirty (30) days from the receipt of this letter to request consultation with the LACSD. We invite any information that you may have regarding Tribal resources or concerns within or near the Project so that we may address your concerns, or take measures to avoid or minimize project effects to any Tribal resources you can identify for us. You may contact me at the address listed above, or at [mholmes@lacsd.org](mailto:mholmes@lacsd.org) or by telephone at (562) 908-4288, extension 2729. The LACSD appreciates your time and attention, and looks forward to any response that you may have. Thank you very much.

Very truly yours,

Marvin Holmes  
Project Engineer  
Planning Section

MH:pb  
Enclosures

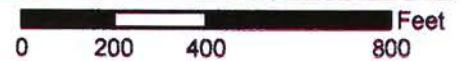


**Legend**

-  Site Boundary
-  Project Area



**Project Area at Carriage Crest Park**



Complete items 1, 2, and 3.  
 Print your name and address on the reverse so that we can return the card to you.  
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A. Signature  Agent  
 Address

B. Received by (Printed Name) MASTINE C. Date of Delivery:

1. Article Addressed to:  
 Linda Candelaria, Co-Chairperson  
 Gabrieleno-Tongva Tribe  
 1999 Avenue of the Stars, Suite 1100  
 Los Angeles, CA 90067

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

2. Article Number (Transfer from service label)  
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- Collect on Delivery Restricted Delivery
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- Registered Mail™
- Registered Mail Restricted Delivery
- Return Receipt for Merchandise
- Signature Confirmation™
- Signature Confirmation Restricted Delivery

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Certified Fee	3.35
Return Receipt Fee (Endorsement Required)	2.75
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$ 6.56</b>

Postmark Here  
**MAR 3 1 2017**

Sent To  
 Linda Candelaria, Co-Chairperson  
 Gabrieleno-Tongva Tribe  
 1999 Avenue of the Stars, Suite 1100  
 Los Angeles, CA 90067

PS Form 3890, August 2006 See Reverse for Instructions

## NATIVE AMERICAN HERITAGE COMMISSION

Environmental and Cultural Department  
 1550 Harbor Blvd., Suite 100  
 West Sacramento, CA 95691  
 Phone (916) 373-3710  
 Fax (916) 373-5471

RECEIVED

Edmund G. Brown Jr., Governor

2017 MAY -1 PM 1:45

ENGINEERING SERVICES  
CITY OF CARSON

April 27, 2017

Julio Gonzalez  
 City of Carson  
 701 E. Carson Street  
 Carson, CA 90745

Sent via e-mail: jgonzale@carson.ca.us

Re: SCH# 2017041058, Carson Stormwater and Runoff Capture Project, City of Carson; Los Angeles County, California

Dear Mr. Gonzalez:

The Native American Heritage Commission (NAHC) has reviewed the Negative Declaration prepared for the project referenced above. The review included the Introduction and Project Description, the Initial Study Environmental Checklist, and the Evaluation of Environmental Impacts prepared by Paleo Solutions for the City of Carson. We have the following concerns:

- There are potential impacts to Cultural Resources and Tribal Cultural Resources from excavation of 35,000 cubic yards of soil to a depth of 28 feet over 1.5 acres. Mitigation for inadvertent finds of Cultural Resources and Tribal Cultural Resources developed in consultation with culturally affiliated tribes should be included in the environmental documents for this project.
- There is no Tribal Cultural Resources section or subsection in the Initial Study/ Environmental Checklist as per California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," <http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf>
- There is no documentation of **government-to-government consultation by the lead agency** under AB-52 with Native American tribes traditionally and culturally affiliated to the project area as required by statute, or that mitigation measures were developed in consultation with the tribes. Discussions under AB-52 may include **the type of document prepared and proposed mitigation**. Contact by consultants during the Cultural Resources Assessments is not formal consultation.
- Cultural Resources and Tribal Cultural Resources assessments to identify the likelihood of cultural resources are not documented. These should adequately assess the existence and significance of cultural resources and tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources. **The lack of documented resources does not preclude inadvertent finds**, which should be addressed in the mitigation measures.
- Mitigation for inadvertent finds of Archaeological Resources, Cultural Resources, Tribal Cultural Resources, and Human Remains are missing. Standard mitigation measures should be included in the document.
- There are no mitigation measures specifically addressing Tribal Cultural Resources separately. Mitigation measures must take Tribal Cultural Resources into consideration as required under AB-52, **with or without consultation** occurring. Mitigation language for archaeological resources is not always appropriate for or similar to measures specifically for handling Tribal Cultural Resources.

The California Environmental Quality Act (CEQA)<sup>1</sup>, specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.<sup>2</sup> If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared.<sup>3</sup> In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

<sup>1</sup> Pub. Resources Code § 21000 et seq.

<sup>2</sup> Pub. Resources Code § 21084.1; Cal. Code Regs., tit. 14, § 15064.5 (b); CEQA Guidelines Section 15064.5 (b)

<sup>3</sup> Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1); CEQA Guidelines § 15064 (a)(1)



CEQA was amended in 2014 by Assembly Bill 52. (AB 52).<sup>4</sup> **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** AB 52 created a separate category for “tribal cultural resources”<sup>5</sup>, that now includes “a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.”<sup>6</sup> Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.<sup>7</sup> Your project may also be subject to **Senate Bill 18 (SB 18)** (Burton, Chapter 905, Statutes of 2004), Government Code 65352.3, if it also involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space. **Both SB 18 and AB 52 have tribal consultation requirements.** Additionally, if your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966<sup>8</sup> may also apply.

**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

Agencies should be aware that AB 52 does not preclude agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52. For that reason, we urge you to continue to request Native American Tribal Consultation Lists and Sacred Lands File searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>. Additional information regarding AB 52 can be found online at [http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation\\_CalEPAPDF.pdf](http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf), entitled “Tribal Consultation Under AB 52: Requirements and Best Practices”.

The NAHC recommends lead agencies consult with all California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources.

A brief summary of portions of AB 52 and SB 18 as well as the NAHC’s recommendations for conducting cultural resources assessments is also attached.

Please contact me at [gayle.totton@nahc.ca.gov](mailto:gayle.totton@nahc.ca.gov) or call (916) 373-3710 if you have any questions.

Sincerely,



Gayle Totton, B.S., M.A., Ph.D  
Associate Governmental Project Analyst

Attachment

cc: State Clearinghouse

---

<sup>4</sup> Government Code 65352.3

<sup>5</sup> Pub. Resources Code § 21074

<sup>6</sup> Pub. Resources Code § 21084.2

<sup>7</sup> Pub. Resources Code § 21084.3 (a)

<sup>8</sup> 154 U.S.C. 300101, 36 C.F.R. § 800 et seq.

## Pertinent Statutory Information:

### **Under AB 52:**

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice.

A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.<sup>9</sup> and **prior to the release of a negative declaration, mitigated negative declaration or environmental impact report.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18).<sup>10</sup>

The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects.<sup>11</sup>

1. The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.

If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency.<sup>12</sup>

With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process **shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10.** Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.<sup>13</sup>

If a project may have a significant impact on a tribal cultural resource, **the lead agency's environmental document shall discuss** both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource.<sup>14</sup>

Consultation with a tribe shall be considered concluded when either of the following occurs:

- a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
- b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.<sup>15</sup>

Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 **shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program**, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable.<sup>16</sup>

If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, **the lead agency shall consider feasible mitigation** pursuant to Public Resources Code section 21084.3 (b).<sup>17</sup>

An environmental impact report **may not be certified**, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

- a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
- b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

<sup>9</sup> Pub. Resources Code § 21080.3.1, subs. (d) and (e)

<sup>10</sup> Pub. Resources Code § 21080.3.1 (b)

<sup>11</sup> Pub. Resources Code § 21080.3.2 (a)

<sup>12</sup> Pub. Resources Code § 21080.3.2 (a)

<sup>13</sup> Pub. Resources Code § 21082.3 (c)(1)

<sup>14</sup> Pub. Resources Code § 21082.3 (b)

<sup>15</sup> Pub. Resources Code § 21080.3.2 (b)

<sup>16</sup> Pub. Resources Code § 21082.3 (a)

<sup>17</sup> Pub. Resources Code § 21082.3 (e)

- c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days.<sup>18</sup>  
***This process should be documented in the Tribal Cultural Resources section of your environmental document.***

**Under SB 18:**

Government Code § 65352.3 (a) (1) requires consultation with Native Americans on general plan proposals for the purposes of "preserving or mitigating impacts to places, features, and objects described § 5097.9 and § 5091.993 of the Public Resources Code that are located within the city or county's jurisdiction. Government Code § 65560 (a), (b), and (c) provides for consultation with Native American tribes on the open-space element of a county or city general plan for the purposes of protecting places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

- SB 18 applies to **local governments** and requires them to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: [https://www.opr.ca.gov/docs/09\\_14\\_05\\_Updated\\_Guidelines\\_922.pdf](https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf)
- **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.**<sup>19</sup>
- **There is no Statutory Time Limit on Tribal Consultation under the law.**
- **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research,<sup>20</sup> the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction.<sup>21</sup>
- **Conclusion Tribal Consultation:** Consultation should be concluded at the point in which:
  - The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation.<sup>22</sup>

**NAHC Recommendations for Cultural Resources Assessments:**

- Contact the NAHC for:
  - A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - A Native American Tribal Contact List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
    - The request form can be found at <http://nahc.ca.gov/resources/forms/>.
- Contact the appropriate regional California Historical Research Information System (CHRIS) Center ([http://ohp.parks.ca.gov/?page\\_id=1068](http://ohp.parks.ca.gov/?page_id=1068)) for an archaeological records search. The records search will determine:
  - If part or the entire APE has been previously surveyed for cultural resources.
  - If any known cultural resources have been already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

<sup>18</sup> Pub. Resources Code § 21082.3 (d)

<sup>19</sup> (Gov. Code § 65352.3 (a)(2)).

<sup>20</sup> pursuant to Gov. Code section 65040.2,

<sup>21</sup> (Gov. Code § 65352.3 (b)).

<sup>22</sup> (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

**Examples of Mitigation Measures That May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**

- Avoidance and preservation of the resources in place, including, but not limited to:
  - Planning and construction to avoid the resources and protect the cultural and natural context.
  - Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - Protecting the cultural character and integrity of the resource.
  - Protecting the traditional use of the resource.
  - Protecting the confidentiality of the resource.
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed.<sup>23</sup>
- Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.<sup>24</sup>

The lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

- Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources.<sup>25</sup> In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

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<sup>23</sup> (Civ. Code § 815.3 (c)).

<sup>24</sup> (Pub. Resources Code § 5097.991).

<sup>25</sup> per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)).



# GABRIELEÑO BAND OF MISSION INDIANS - KIZH NATION

Historically known as The San Gabriel Band of Mission Indians  
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

County Sanitation Districts  
Los Angeles County

April 26, 2017

Re: AB52 Consultation request for Carson Stormwater and Runoff Capture Project Located:  
Crest Park Los Angeles

Dear Marvin Holmes,

Please find this letter as a written request for consultation regarding the above-mentioned project pursuant to Public Resources Code § 21080.3.1, subd. (d). Your project lies within our ancestral tribal territory, meaning descending from, or a higher degree of kinship than traditional or cultural affiliation. Your project is located within a sensitive area and may cause a substantial adverse change in the significance of our tribal cultural resources. Most often, a records search for our tribal cultural resources will result in a "no records found" for the project area. The Native American Heritage Commission, ethnographers, historians, and professional archaeologists can only provide limited information that has been previously documented about California Native Tribes. This is the reason the Native American Heritage Commission (NAHC) will always refer the lead agency to the respective Native American Tribe of the area because the NAHC is only aware of general information and are not the experts on each California Tribe. Our Elder Committee & tribal historians are the experts for our Tribe and are able to provide a more complete history (both written and oral) regarding the location of historic villages, trade routes, cemeteries and sacred/religious sites in the project area. Therefore, to avoid adverse effects to our tribal cultural resources, we would like to consult with you and your staff to provide you with a more complete understanding of the prehistoric use(s) of the project area and the potential risks for causing a substantial adverse change to the significance of our tribal cultural resources.

Consultation appointments are available on Wednesdays and Thursdays at our offices at 901 N. Citrus Ave. Covina, CA 91722 or over the phone. Please call toll free 1-844-390-0787 or email [gabrielenoindians@yahoo.com](mailto:gabrielenoindians@yahoo.com) to schedule an appointment.

\*\* Prior to the first consultation with our Tribe, we require all those individuals participating in the consultation to view a video produced and provided by CalEPA and the NAHC for sensitivity and understanding of AB52. You can view the video at:  
<http://nahc.ca.gov/2015/12/ab-52-tribal-training/>

With Respect,

Andrew Salas, Chairman

Andrew Salas, Chairman

Nadine Salas, Vice-Chairman

Christina Swindall Martinez, secretary

Albert Perez, treasurer |

Martha Gonzalez Lemos, treasurer ||

Richard Gradias, Chairman of the Council of Elders

PO Box 393, Covina, CA 91723

[www.gabrielenoindians.org](http://www.gabrielenoindians.org)

[gabrielenoindians@yahoo.com](mailto:gabrielenoindians@yahoo.com)



MARK PESTRELLA, Director

# COUNTY OF LOS ANGELES

## DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE  
ALHAMBRA, CALIFORNIA 91803-1331  
Telephone: (626) 458-5100  
<http://dpw.lacounty.gov>

ADDRESS ALL CORRESPONDENCE TO:  
P.O. BOX 1460  
ALHAMBRA, CALIFORNIA 91802-1460

May 23, 2017

TO: Julio Gonzalez  
Senior Engineering Technician  
City of Carson  
Public Works Department

FROM: Anthony Nyivih  
Land Development Division  
Department of Public Works

**PLAN NO. RPPL2017007183**  
**PLAN TYPE: PERMITS & REVIEWS**  
**WORK CLASS: CEQA – OUTSIDE AGENCY**  
**PROJECT NAME: CARSON STORMWATER RUNOFF CAPTURE PROJECT**  
**23800 SOUTH FIGUEROA STREET**  
**ASSESSOR'S MAP BOOK NO. 7330, PAGE 7, PARCEL NO. 905**  
**UNINCORPORATED COUNTY COMMUNITY OF CARSON**

Thank you for the opportunity to review the Initial Study/Negative Declaration (IS/ND) and the Preliminary Engineering Design Report for the Carson Stormwater Runoff Capture project.

The Project proposes to capture all dry-weather runoff from a nearby storm drain, county project No. 1201, and the first flush of storm-water to reduce the transport of pollutants downstream in Wilmington Drain and Machado Lake.

For specific revisions, additions, or deletions of wording directly from the project document the specific section, subsection, and/or item along with the page number is first referenced then the excerpt from the document is copied within quotations using the following nomenclature:

Deletions are represented by a ~~strike through~~.  
Additions are represented by *italics* along with an underline.  
Revisions are represented by a combination of the above.

### 1. Initial Study/Negative Declaration

**1.1. Section IX, Hydrology and Water Quality, Part d, Page 16:**

"The proposed stormwater capture project would not substantially affect the area's existing drainage pattern or increase the rate or amount of surface runoff, causing flooding on or off-site, because any detained water would be stored in a retention basin prior to sewer discharge."

If rubber dam's operation includes impounding water inside the existing storm drain system, it could have adverse hydraulic effect and impact to the storm drain system and surrounding community. If so, does the above statement accurately reflect the rubber dam's impact? Further discussion, justification, and clarification would be needed.

**1.2. Initial Study, Section XII, Noise, Part c, Page 18:** There are no checked boxes or finding for part c.

If you have questions regarding the comments on IS/ND, please contact Long Thang of Los Angeles County Department of Public Works' (LACDPW) Watershed Management Division at (626) 458-5119 or [lthang@dpw.lacounty.gov](mailto:lthang@dpw.lacounty.gov).

**2. Preliminary Engineering Design Report**

**2.1. Subsection 1.2.1 - Concept Data Review, Page 4:** "Although this concept would manage substantial wet weather flows from Carson's tributary area to the 69-inch storm drain, it provides little wet weather benefit to other jurisdictions in the Wilmington Drain watershed and recommends installation of two separate pump stations that could be consolidated into one."

Please verify that the propose project can be enlarged to capture the 85th% contribution of the other contributing jurisdictions. Additional plans and reports maybe needed for the required LACFCD permit.

If you have questions regarding the comment 2.1, please contact Long Thang of LACDPW Watershed Management Division at (626) 458-5119 or [lthang@dpw.lacounty.gov](mailto:lthang@dpw.lacounty.gov).

**2.2. Subsection 3.1.1 - Stormwater Compliance Metrics, Page 14:** "The MS4 Permit requires that EWMP projects be sized, where feasible, to retain the 85th percentile design storm volume to achieve multiple benefits (including flood management and water supply augmentation) above and beyond water quality improvement."

Retaining the 85th percentile design storm has little or no flood protection benefit. The peak flow rate from the 85th percentile storm is insignificant as

compared with the 10-year, 25-year, 50-year, and 100-year floods.

2.3. **Subsection 3.1.2 - Watershed Characterization, Page 14:**

2.3.1. “For this study, the Los Angeles County Watershed management modeling System (WMMS) was use...”

It is not clear from the above statement whether the 85th percentile design storm was applied to the calibrated WMMS to compute the 85th percentile runoff volume or the 2001-2011 simulated daily runoff volumes were used to compute the 85th percentile runoff volume.

2.3.2. **Table 4:**

Table 4. Summary of contributing drainage area, baseline runoff, and pollutant loads

Jurisdiction	Total Tributary Area (ac)	Impervious Tributary Area (ac)	Average Annual Runoff (ac-ft)	Average Annual TN Surface Flux (lb) <sup>1</sup>	85 <sup>th</sup> Percentile Surface Runoff (ac-ft)
Carson	455	201	233	1,300	15
Unincorporated	319	171	171	853	11
Los Angeles	234	155	146	804	10
Torrance	138	84	86	476	6
<b>Total</b>	<b>1,146</b>	<b>611</b>	<b>636</b>	<b>3,433</b>	<b>43</b>

<sup>1</sup> Note that this represents land surface loading contributed to the MS4, and that the baseline loading transported to Carriage Crest was predicted to be slightly less (3,014 lb of TN) due to storage and reduction processes occurring within the channel during the course of the simulation.

2.3.2.1. Does the 85<sup>th</sup> percentile surface runoff (ac-ft) corresponds to the 24 hour 85<sup>th</sup> percentile design storm?

2.3.2.2. Add footnotes to clarify how the average annual runoff (ac-ft) was computed. Is it based on the average SWMM simulated runoff volumes (2001-2011)?

2.3.2.3. We recommend the following approach to estimate the average annual volume of runoff that can be captured assuming the BMP system designed to capture the 85<sup>th</sup> percentile design storm:

- Compute the 24-hour 85<sup>th</sup> percentile design storm runoff volume.
- Use the WMMS already simulated daily runoff volume (2001-2011).



- The total volume of runoff that is captured during the simulated period (2001-2011) can be computed from Parts 1 and 2.
- Similarly, the average annual volume of runoff can be computed.

2.4. **Subsection 3.1.3 - Onsite Baseline Water Demand Estimation, Figure 8, Page 16:**

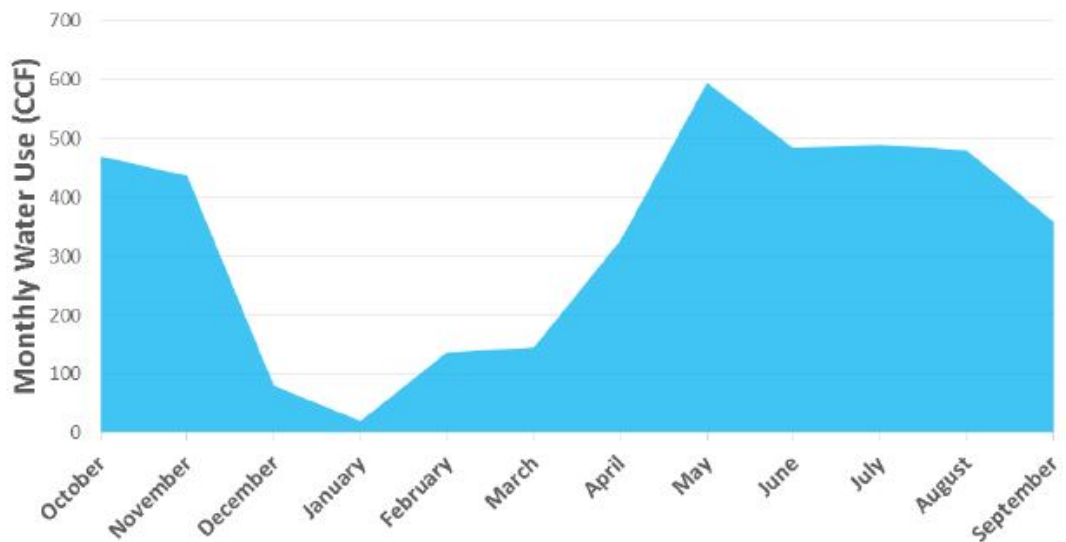


Figure 8. Water demand at Carriage Crest Park interpreted from water bill data

Since this figure is meant to display the monthly demands, the use of a bar chart or bar graph is recommended.

2.5. **Subsection 4.1 - Diversion Structures, Page 29:**

2.5.1. "The rubber dams will allow for the impoundment of approximately one to two acre-feet of water. The water impounded will extend approximately 1,922 feet within the LACFCD RCB (BI 1201 – Line A) and approximately 810 feet in the LACFCD Carriagedale Drive 69" RCP Lateral (see Appendix C for the delineated extent of the impoundment)."

Please specify that impounded water will go up Line B as shown in Appendix C. Also, our record shows a drain tributary to Line A approximately midway up the predicted impound water reach. See attached image below. This tributary might be shown as a crossed out tributary pipe on Drawing No. 364-1201-D6.3 in Appendix C. Has this tributary pipe been confirmed to not exist? If not, it needs to be

included and its analysis provided.



2.5.2. The last sentence states that “The design storm flow was also simulated with a three-foot-high weir to investigate the impacts of a situation where the rubber dam fails to deflate in high flows; the water surface pressure gradient still did not exceed the ground surface elevation with a three-foot weir, suggesting that flood risk is managed by this design.”

Although the pressure gradient did not exceed ground surface, a malfunctioning rubber dam that fails to deflate will cause the RCB to pressurize and impact the ability of the storm drain to pass storm flows without causing localized surface flooding. This is especially true at any inlets. It is requested that an analysis which indicates the hydraulic deficiencies caused by a malfunctioning rubber dam be undertaken which points out specific locations where surface flooding is likely to occur under this scenario.

If you have questions regarding comments 2.2 to 2.5, please contact Rudy Rivera of Public Works’ Water Resources Division at (626) 458-6147 or [rrivera@dpw.lacounty.gov](mailto:rrivera@dpw.lacounty.gov).

## 2.6. **Subsection 5.2 Preliminary Cost Analysis**

Has sediment buildup due to the rubber dams, potential odor and vector issues due to impounded water been considered? And if not, should their potential costs be included in the maintenance cost estimate?

If you have questions regarding the comment 2.6, please contact Long Thang of LACDPW Watershed Management Division at (626) 458-5119 or [lthang@dpw.lacounty.gov](mailto:lthang@dpw.lacounty.gov).

## 3. **General Comments For LACFCD Permit**

- 3.1. The LACFDC in general supports these types of projects provided the City of Carson and LACFCD can enter into a Memorandum of Agreement (MOA) regarding the Design, Construction and Operation and Maintenance of the Carson Stormwater Capture Project features. The MOA shall defer all responsibility for the operation and maintenance, effectiveness and costs associated with the Carson Stormwater Capture Project to the City of Carson.
- 3.2. The City of Carson will provide LACFCD with any new easements needed for the operation and maintenance of the storm drains and appurtenant structure modifications.
- 3.3. LACFCD shall have deflation capability over the rubber dam for flood control purposes at all times through direct access on-site via control panel and/or through telemetry.
- 3.4. As part of the LACFCD permit, all project plans, technical studies, documentations, environmental regulatory agency permits, operation and maintenance details will require LACFCD review and approval to ensure:
  - a. The proposed improvements do not have any adverse hydraulic effect on our facilities (i.e. impounded water will extend approximately 1,922 feet within the LACFCD RCB Project 1201 – Line A and approximately 810 feet in the LACFCD Carriagedale Drive 69” RCP Lateral), or the surrounding community.
  - b. The proposed improvements do not have any long term adverse structural effect on LACFCD facilities from the proposed pretreatment system, diversion structures, and catch basin modifications.

If you have questions regarding the general comments.3.1 to 3.4, please contact Rudy Rivera of Public Works’ Water Resources Division at (626) 458-6147 or [rrivera@dpw.lacounty.gov](mailto:rrivera@dpw.lacounty.gov).

Julio Gonzalez  
May 23, 2017  
Page 7

If you have any other questions or require additional information, please contact Toan Duong of Public Works' Land Development Division at (626) 458-4910 or [tduong@dpw.lacounty.gov](mailto:tduong@dpw.lacounty.gov).

**AM:**

\\pw01\pwpublic\ldpub\SUBPCHECK\Plan Checking Files\Zoning Permits\Projects submitted by Other Agencies\RPPL2017007183 - 23800 South Figueroa Street\RPPL2017007183\2017-05-04 RPPL2017007183 SUBMITTAL\2017-05-23 RPPL2017007183 - Carson Stormwater Memo.doc



Robert Kurkjian, PhD  
Program Manager

May 26, 2017

Ms. Kristen Ruffell  
Los Angeles County Sanitation District  
1955 Workman Mill Road.  
Whittier, CA 90601

RE: Soil Characterization Investigation Report  
Carriage Crest Park  
23800 S. Figueroa Street, Carson, California  
Project No. 100-SDG-T36285.01

Dear Ms. Ruffell:

Tetra Tech appreciates the opportunity to submit this Soil Characterization Investigation report to the Los Angeles County Sanitation District (LACSD) for the Carriage Crest Park in Carson, California (the Site). LACSD may use and rely upon this Report consistent with the limitations cited in the Report. Tetra Tech conducted a subsurface investigation comprised of soil sampling and analysis. The field activities and findings are provided in the attached report.

We appreciate the opportunity to provide you with these services. Please do not hesitate to contact us at your convenience, should you have questions or comments regarding this report or our findings.

Sincerely,  
Tetra Tech, Inc.

A handwritten signature in blue ink that reads 'Robert Kurkjian'.

Robert Kurkjian

cc: Oliver Galang, Tetra Tech  
Enclosure

## 1 INTRODUCTION

On behalf of the Los Angeles County Sanitation District (LACSD), Tetra Tech conducted a soil characterization investigation comprised of soil sampling and analysis within the proposed construction area at the Carriage Crest Park located at 23800 S. Figueroa Street, Carson, California (Site), based on the findings of the limited environmental sampling conducted during a geotechnical investigation performed by Tetra Tech (2016a,b). The soil characterization investigation was conducted on April 18 and 19, 2017, and included conducting a geophysical survey for subsurface clearance, advancing soil borings to a depth of 15 feet below ground surface (bgs), observing and screening soil, collecting soil samples for laboratory analysis, laboratory analyses for contaminants of potential concern (COPCs), evaluation of the data for waste classification, and preparation of this letter report (Report).

## 2 OBJECTIVES AND SCOPE OF WORK

Tetra Tech's scope of work (SOW) for this project consisted of the following tasks:

- Conduct a geophysical survey and pre-mark proposed boring locations.
- Coordinate with LACSD engineering staff, City of Carson personnel, park staff, and Underground Service Alert (USA) for clearance of buried onsite utilities prior to drilling.
- Conduct a subsurface investigation, including logging and sampling of 12 soil borings to a maximum depth of 15 feet. Contain soil cuttings in steel drums and dispose into an appropriate disposal facility.
- Evaluate the laboratory results to develop recommendations as part of the Soil Management Plan (SMP).
- Prepare this written report documenting the work performed, soil sampling results, and findings.

The objectives were to:

- Define extents of pesticide contamination within the construction area at California-hazardous waste levels
- Determine metals concentrations for waste classification purposes
- Validate results of initial environmental borings conducted during the geotechnical investigation (e.g., no or low levels of volatile organic compounds [VOCs] detected, etc.)

To address the objectives, the initial scope of work (SOW) was to advance soil borings to 15 feet bgs and collect samples at six depth intervals with the bottom three samples held for analysis pending the results of the shallow samples.

This Report describes the field activities conducted by Tetra Tech, results of the soil laboratory analysis, and the investigation findings. Tetra Tech compared the results to United States Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) in response to the California EPA (Cal EPA) Department of Toxic Substances Control (DTSC) comment letter dated May 9, 2017 on the Initial Study and Proposed Negative Declaration for Carson Stormwater and Runoff Capture Project (DTSC, 2017).

## 3 SITE SETTING AND SITE BACKGROUND AND DESCRIPTION

The Site is located at the northeast corner of the intersection of Figueroa Street and Sepulveda Boulevard and is approximately 5 acres in size (Figure 1). The Site was purchased by the City of Carson

in 1973 for the development of Carriage Crest Park and has been used as a recreational area since then. Facilities at the Site include a lighted baseball diamond, a lighted basketball court, a play area, a picnic area, and multi-purpose room, and a parking lot. The Site is situated in a mixed residential, commercial, and light industrial area. The Site is bounded by Sepulveda Boulevard to the south, Figueroa Street to the west, single family homes to the north, and Color Spot nursery to the east.

The Site is enclosed by a perimeter chain-link fence. Aside from the community center, there are no other structures that can be occupied by humans on-Site. Vegetation consists of grass fields and perimeter trees. The remainder of the Site is comprised of a parking lots, basketball courts, and a playset/playground area with a rubber surface. It is anticipated that only the grass fields making up the baseball and soccer areas on the south end of the Site will be disturbed during excavation.

A geotechnical investigation was conducted in 2016 (Tetra Tech, 2016b) prior to stormwater management planning and design activities. Five environmental soil borings were also advanced and sampled for pesticides, herbicides, total petroleum hydrocarbons (TPH), and VOCs (Tetra Tech, 2016a). The environmental borings indicated concentrations of pesticides at depths of up to 10 feet bgs with elevated levels in shallow samples (1 and 5 feet bgs). Most other analytes were either not detected or detected at very low concentrations.

## **4 GEOLOGY AND HYDROGEOLOGY**

### **4.1 Regional Geology**

The Site is located in the southwestern coastal plain of the greater Los Angeles Basin. The Los Angeles Basin is located within Peninsular Ranges geomorphic province which is characterized as a low-lying plain that rises gently inland to the surrounding mountains and hills including the Santa Monica and San Gabriel Mountains to the north, Puente Hills to the northeast, the Santa Ana Mountains to the Southeast, and the San Joaquin hills and Palos Verdes Peninsula to the south. The Peninsular Range is characterized by northwest-southeast trending structural blocks separated by northwest-southeast trending strike-slip faults.

Within the Los Angeles Basin there are 4 structural blocks: the southwestern block, the northwestern block, the central block, and the northeastern block (Norris and Webb, 1990). The subject site is located in the southwestern block, which is bounded by the Newport Inglewood - Rose Canyon fault zone to the east northeast and the Palos Verdes fault zone to the southwest. The main structural features of the southwestern block are the anticlinal Palos Verdes Hills that have been raised along the steeply dipping Palo Verdes reverse fault, several anticlinal ridges in the basement rocks over which younger sediments have been deposited, and intervening broad synclines. The anticlinal structures of the younger rocks have formed important traps for petroleum and natural gas within the region. The basement rocks of the southwestern block exposed in the Palos Verdes Hills, consist dominantly of green chlorite and blue glaucophane metamorphic rocks of the Catalina Schist that are late Jurassic to late Cretaceous in age. The overlying younger sediments are upper Pliocene to Holocene in age. The uppermost Holocene deposits are mapped as alluvial materials consisting of clay, silt, and sand (Dibblee, 1990).

### **4.2 Site Geology**

The Site is located within the southern portion of the northwest-trending coastal plain, locally recognized as the Torrance Plain (Poland and Piper, 1956). The Torrance Plain rests between the El Segundo Sand Hills and the Palos Verdes Hills in the west and southwest, the Rosecrans Hills and Dominguez Hills in the northeast, and the Dominguez gap to the east. The Torrance Plane consists of

elevated older alluvium, which is covered, locally, with moderately dense silty sand of older eolian wind-blown deposits (Dibblee, 1990). Toward the San Pedro Shelf (Los Angeles Harbor), the Torrance Plain is incised and filled with younger alluvium deposits that are generally soft made of locally derived sand, silt, and clay, and with soft deposits associated with shallow marsh and bay sediments.

Based upon the findings from Tetra Tech's 2016a,b subsurface investigation, the project site is mantled by artificial fill soils which were encountered across the entire site. Beneath the fill, mostly alluvium and some isolated shallow organic marsh sediments were encountered in the exploratory borings to the maximum explored depth of 51.5 feet. Locally, these alluvial deposits are classified as near shore alluvial and marsh type deposits. Artificial fill soils composed of silty sand and clayey sands containing traces of roots, wood fragments, gravel and brick fragments were encountered to depths ranging from approximately 4 to 9 feet. Native alluvial soils were encountered below the fill soils to the maximum explored depth of 51.5 feet below the ground surface. The native alluvium consisted of fine-grained (clay) and coarse-grained (sand) soils. The coarse-grained soils were generally found at a depth ranging from 22 to 25 feet below the ground surface throughout the Site (Tetra Tech, 2016b).

### **4.3 Regional Hydrogeology**

Hydrologically, the Site also lies within in the southern portion of the West Coast Basin. The West Coast Basin is approximately 25 miles long and 7.5 miles wide, encompassing an area of approximately 160 square miles and including 20 incorporated cities. It is bounded on the north by the Ballona Gap, on the northeast by the Baldwin-Rosecrans-Dominguez Hills, on the east by the Newport-Inglewood Structural Zone, on the south by the Palos Verdes Hills, and on the west by the Pacific Ocean (DWR, 1961).

Deeper aquifers in the area include the Gaspur, Gage, Lynwood, and Silverado aquifers (CDWR, 1961). Locally, the uppermost lithologic units are reported to be 25 to 90 feet of Quaternary alluvium, 130 to 200 feet of upper Pleistocene Lakewood Formation, and 420 to 1,050 feet of lower Pleistocene San Pedro Formation. The Lakewood Formation includes the Exposition, Garden, and Gage aquifers, which are composed of sand, sandy clay, clay, and gravel. The deeper San Pedro Formation includes the Hollydale, Jefferson, Lynwood, Silverado, and Sunnyside aquifers.

### **4.4 Site Hydrogeology**

According to the State of California (CDMG, 1998), the historic high groundwater level near the Site has been mapped at a depth of about 10 feet. Groundwater was encountered in the Tetra Tech exploratory borings at a depth of approximately 42 to 44.1 feet (Tetra Tech, 2016b). According to information reviewed on the database from the Los Angeles County Department of Public Works (LACDPW) for nearby wells (<http://dpw.lacounty.gov/general/wells/>) and the State Water Resources Control Board's (SWRCB's) GeoTracker website, the depth to groundwater at the Site is assumed to have been deeper than about 35 feet within the last 50 years (Tetra Tech, 2016b).

## **5 FIELD ACTIVITIES**

Prior to the start of sampling activities, Tetra Tech contacted Underground Service Alert (USA) to locate public utilities under or adjacent to the proposed boring locations. Under direction from Tetra Tech, Terra Physics conducted geophysical surveys to confirm the absence of private utilities or subsurface obstructions in the immediate vicinity of the boring locations. Drilling and sampling activities are described below.



## **5.1 Soil Boring Activities**

Tetra Tech selected 12 boring locations based on a grid system to further characterize soil impacts in the proposed construction area. The locations of the borings as well as the design (60%) area of excavation are shown on Figure 2.

### **5.1.1 Soil Screening**

Soils were screened by visual observation (e.g., soil types, discolored soil), smell (chemical odors in ambient air), and photo-ionization detector (PID) measurements. PID measurements were collected by placing each selected sample in a Ziploc® bag, disaggregating and agitating the soil to promote volatilization of VOCs, and then measuring the soil with the PID after leaving the sealed bag in the sun for two minutes to allow for volatilization and equilibration.

### **5.1.2 Soil Boring Drilling Procedures**

All 12 soil borings (DP1 – DP12) were advanced with a Geoprobe® direct-push drill rig by Millennium Environmental, Inc (MEI). Continuous-core soil samples were collected in acetate liners from borings, where possible. Borings were advanced in the locations shown in Figure 2 to depths of 15 feet bgs. Deviations and field variances from the initial proposal are presented in Section 6.

### **5.1.3 Soil Sample Collection and Handling**

The Tetra Tech field geologist collected six soil samples for laboratory analysis from depths of 1, 3, 5, 8, 10, and 15 feet bgs from all 12 soil borings. Soil samples were collected in acetate liners within the direct-push core tube as drill rods advanced. Upon retrieval, the liner containing the soil core sample was cut into 12-inch sections for laboratory analyses. The 12-inch sample sections were capped with Teflon sheets and vinyl end caps. Where duplicate samples were collected, the section was cut open and the soil was placed in a resealable bag for field homogenization before the sample was split into two separate jars.

Soil samples were preserved and labeled with the sample identification, date, and time of sampling. Following collection, soil samples were stored on ice at approximately 4°C in a laboratory-supplied cooler in the field. Soil samples were delivered under chain-of-custody protocol to Eurofins Calscience laboratory.

The remainder of the soil samples were used for lithology logging by visual and physical inspection in accordance with the Unified Soil Classification System (USCS) and for PID soil screening as described above under the direction of a California-registered Professional Engineer. Soil sample descriptions, sampling depths, and the maximum PID readings are presented within the boring logs in Attachment A.

### **5.1.4 Analytical Methods**

Soil samples were transferred to Eurofins Calscience, a state-certified laboratory, and analyzed for pesticides by U.S. Environmental Protection Agency (EPA) Method 8081 and Title 22 metals by EPA Method 6010. One soil sample was analyzed for VOCs by EPA Method 8260B/5035 (using Terra Cores for sample collection) and TPH-gasoline and TPH-diesel by EPA Method 8015B. Soil samples analyzed for TPH and VOCs was determined based on field screening and observations (e.g., PID readings, staining, odor, etc.). Laboratory reports are provided in Attachment B.

## **5.2 Backfilling Boreholes**

Once the soil samples were collected, all boreholes were backfilled with hydrated, granular bentonite. Tetra Tech observed backfilling of all boreholes by the drilling contractors.

### 5.3 Decontamination

Field equipment in contact with soil was decontaminated prior to and after use. Heavy equipment (e.g., down-hole drilling tools, bits, drill rods) were cleaned with a mixture of potable water and non-phosphate detergent prior to use. Reusable drilling equipment was scrubbed to remove all visible potential contaminants and external surfaces were wiped of debris, and left to air dry.

### 5.4 Data Quality

Tetra Tech evaluated the data by reviewing selected results from the following Quality Control (QC) parameters:

- Holding Times
- Trip Blanks
- Equipment Blanks
- Method Blanks
- Surrogate Recovery Compliance
- Laboratory Control Sample/Laboratory Control Sample Compliance
- Relative Percent Difference (RPD) of Duplicates

Data quality review found quality assurance and quality control (QA/QC) objectives for bias and precision were met for most analytical results. All soil samples met method holding times with the exception of the pesticides for DP1-15, which was requested after the holding time passed. One trip blank was collected and analyzed for VOCs and TPH-gasoline; the results were all non-detect. One equipment blank was collected and analyzed for pesticides, metals, VOCs, and TPH (gasoline and diesel); the results were all non-detect. Therefore, there does not appear to be any cross-contamination from the trip or from the drilling and sampling equipment. Method blanks were all within laboratory control limits indicating no apparent cross contamination with the exception of the VOCs detected in DP1-10.

Surrogate recovery was outside the control limits for pesticides for samples DP1-1, DP1-10, DP2-10-00, DP4-1, DP5-1, DP6-1, DP7-1 due to a required sample dilution and matrix interference; other QC data provided validation of the quality of these samples. Relative percent differences between duplicates were outside 10% for 4,4-DDD for sample DP8-8 (duplicate DP8-8-00), and 4,4-DDD, 4,4-DDE, and 4,4-DDT for samples DP1-8 (duplicated DP1-8-00), DP1-10 (duplicate DP1-10-00), DP2-10 (duplicate DP2-10-00), and DP11-3 (duplicate DP11-3-00). The elevated RPDs may be explained by sample heterogeneity as LCS criteria was met during each analysis. Although a few QC recoveries were outside criteria, a review of the data set indicates the data are of good overall quality, and all data is usable for the intended purpose.

### 5.5 Investigation-Derived Waste (IDW) Storage and Disposal

Soil investigation-derived waste (IDW) was temporarily stored in a 55-gallon United Nations/Department of Transportation (UN/DOT)-compliant drum. A composite sample was collected from the drum for waste classification. The IDW drum is currently pending disposal, and is classified as non-hazardous waste based in the laboratory results of the composite soil sample. Personal protective equipment and other miscellaneous consumables were also disposed of as non-hazardous waste.

## 6 ANALYTICAL RESULTS

A total of 77 soil samples were collected from 12 soil borings, including five duplicate samples, and analyzed for pesticides by EPA Method 8081 and Title 22 metals by EPA Method 6010. Only one sample

was additionally collected for VOCs by EPA Method 8260B and TPH-gasoline and TPH-diesel by EPA Method 8015B due to staining and odor observed in boring DP-1 at 10 feet bgs.

Only the top three samples at 1, 3, and 5 feet bgs were analyzed for pesticides and metals initially while the bottom three samples at 8, 10, and 15 feet bgs were held pending laboratory results from the top samples. Based on the results of the pesticides and metals analyses, additional laboratory tests were conducted to provide vertical delineation or to determine the waste classification. If the concentration of a particular metal exceeded the screening level for the soluble threshold limit concentration (STLC) or the screening level for the toxicity characteristic leaching procedure (TCLP), the sample was analyzed for the STLC and/or TCLP, respectively.

The soil sample analytical results for pesticides and metals are presented in Tables 1 through 3. Pesticides were detected above the laboratory reporting limit in samples from all 12 borings to a maximum depth of 10 feet bgs. California-hazardous concentrations (those exceeding the California Total Threshold Limit Concentration [TTLC]) of 4,4-DDD, 4,4-DDE, and 4,4-DDT were detected in the following borings at the indicated depths:

- 4,4-DDD: DP1 (9,500 µg/kg and 11,000 µg/kg [duplicate] at 10 feet bgs) and DP2 (26,000 µg/kg at 10 feet bgs [duplicate])
- 4,4-DDE: DP1 (6,900 µg/kg at 1 foot bgs; 2,300 µg/kg and 12,000 µg/kg [duplicate] at 10 feet bgs), DP2 (19,000 µg/kg at 10 feet bgs), DP4 through DP8 (74,000 µg/kg, 13,000 µg/kg, 36,000 µg/kg, 7,900 µg/kg, and 5,200 µg/kg, respectively, at 1 foot bgs), DP11 (3,100 µg/kg at 1 foot bgs), and DP12 (6,800 µg/kg at 1 foot bgs)
- 4,4-DDT: DP1 (13,000 µg/kg at 10 feet bgs) and DP2 (2,900 µg/kg at 10 feet bgs)

Additionally, the pesticides results were compared to the EPA Regional Screening Levels (RSLs). Concentrations exceeding the industrial/commercial RSLs for 4,4-DDD, 4,4-DDE, and 4,4-DDT were detected in the following borings at the indicated depths:

- 4,4-DDD: DP1 (11,000 µg/kg at 10 feet bgs [duplicate]) and DP2 (26,000 µg/kg at 10 feet bgs [duplicate])
- 4,4-DDE: DP1 (12,000 µg/kg at 10 feet bgs [duplicate]), DP2 (19,000 µg/kg at 10 feet bgs), and DP4 through DP6 (74,000 µg/kg, 13,000 µg/kg, and 36,000 µg/kg, respectively, at 1 foot bgs)
- 4,4-DDT: DP1 (13,000 µg/kg at 10 feet bgs)

The RSLs (industrial/commercial) are higher than the hazardous waste classification limit, so the RSL exceedances were limited to those already identified as California-hazardous waste. The industrial/commercial RSLs are considered appropriate for the Site since future Site use is a park and risk exposure is less than residential.

The following metals were detected below the TTLC but above waste classification screening criteria of 10 times STLC and/or 20 times TCLP in the following borings at the indicated depths:

- Cadmium: DP1 (17.3 mg/kg and 11.7 mg/kg [duplicate] at 10 feet bgs) and DP2 (13.0 mg/kg at 10 feet bgs [duplicate]) above STLC screening criteria
- Chromium: DP1 (90.2 mg/kg at 1 foot bgs), DP5 (56.2 mg/kg at 1 foot bgs), DP8 (52.3 mg/kg at 5 feet bgs), and DP11 (64.4 mg/kg at 1 foot bgs) above STLC screening criteria; DP1 (394 mg/kg and 276 mg/kg [duplicate] at 10 feet bgs), DP2 (120 mg/kg and 304 mg/kg [duplicate] at 10 feet

bgs), DP4 (200 mg/kg at 1 foot bgs), DP8 (266 mg/kg at 1 foot bgs), and DP12 (107 mg/kg at 1 foot bgs) above STLC and TCLP screening criteria

- Copper: DP1 (448 mg/kg and 306 mg/kg [duplicate] at 10 feet bgs) and DP2 (120 mg/kg and 360 mg/kg [duplicate] 10 feet bgs) above STLC screening criteria
- Lead: DP2 (70.0 mg/kg at 10 feet bgs), DP5 (52.9 mg/kg at 1 foot bgs), DP8 (60.7 mg/kg at 5 feet bgs), and DP11 (84.5 mg/kg at 1 foot bgs) above STLC screening criteria; DP1 (106 mg/kg at 1 foot bgs; 405 mg/kg and 195 mg/kg [duplicate] at 10 feet bgs), DP2 (186 mg/kg at 10 feet bgs [duplicate]), DP4 (218 mg/kg at 1 foot bgs), DP8 (328 mg/kg at 1 foot bgs), and DP12 (127 mg/kg at 1 foot bgs) above STLC and TCLP screening criteria

The samples that exceeded the screening criteria were analyzed by the STLC and/or TCLP methods as appropriate. The STLC was exceeded for chromium and lead in borings DP1 at 10 feet bgs and DP4, DP8, and DP12 at 1 foot bgs indicated California-hazardous concentrations.

Additionally, the metals results were compared to the EPA RSLs. For arsenic, the results were compared to the DTSC established upper-bound screening (e.g. background) criterion of 12 mg/kg (DTSC 2008). None of the metals exceeded the industrial/commercial RSLs. Arsenic was detected above the established background concentration in the following borings at the indicated depths:

- Arsenic exceeded background in borings: DP1 (18.3 mg/kg and 16.1 mg/kg [duplicate] at 10 feet bgs), DP2 (30.5 mg/kg at 10 feet bgs [duplicate]), DP4 (13.5 mg/kg at 1 foot bgs), and DP8 (16.8 mg/kg at 1 foot bgs)

VOCs were detected in the one sample (boring DP1 at 10 feet bgs) analyzed for VOCs at low concentrations that were also detected in the method blank, so may be a result of cross-contamination in the laboratory. During drilling, faint staining was only observed between 9-10 feet bgs in boring DP-1 and DP2.

## **7 DISCUSSION OF FINDINGS**

The majority of the pesticides-impacted soil at California hazardous concentrations was found in the 1 foot bgs samples with concentrations decreasing below California hazardous criteria in the 3 feet bgs samples in borings DP1, DP4 through DP8, DP11, and DP12. Concentrations above the California hazardous criteria were also detected in the 10 feet bgs samples in select borings including DP1 and DP2 on the south side of the Site. The elevated pesticides decreased to non-detect or to concentrations below the hazardous waste criteria in 15 feet bgs samples in the same borings. Pesticides were detected at California-hazardous concentrations in samples at 5 feet bgs during the 2016 investigation. However, since no concentrations at 5 feet bgs during this investigation exceed the California-hazardous waste classification criteria and industrial/commercial RSLs, the previous detections are considered isolated and will be verified during excavation.

Metals including cadmium, chromium, copper, and lead were detected at elevated concentrations coinciding with the elevated pesticides concentrations. Only chromium and lead in the 1 foot bgs samples from borings DP4, DP8, and DP12 were detected at California hazardous concentrations. Only arsenic exceeded EPA RSLs. Arsenic exceeded the industrial/commercial RSL, but was additionally compared to the DTSC established upper-bound screening criterion. All the arsenic concentrations exceeding the upper-bound screening criterion were co-located with California-hazardous soil.

Soil staining and odor was only observed in boring DP-1 at 10 feet bgs. VOCs were analyzed in the collected sample but no VOCs were detected. No debris or other indications of dumping of environmental concern were observed in soils throughout the Site.

The estimated lateral extents of the California-hazardous soils for the 1 foot bgs and the 10 feet bgs depth intervals are shown on Figure 3.

## **8 SUMMARY AND RECOMMENDATIONS**

California-hazardous levels of pesticides and metals were identified across a majority of the proposed excavation area at the 1 foot bgs depth and across most of the southern portion at the 10 feet bgs depth. It is recommended that the Soil Management Plan (SMP) prepared for the management of soil during the currently proposed excavation address the handling of the top 3 feet of soil across the entire excavation and the soil from 8 feet bgs to 12 feet bgs on the southern quarter of the excavation as California-hazardous. Confirmation samples will be collected from the excavation sidewalls and the bottom and tested for pesticides and metals to ensure excavation of soils exceeding hazardous waste or screening criteria at other depth intervals. The SMP will address the sampling and documentation of soil left in-place and/or reused, sampling of soil for disposal, sampling of import soil, and criteria for sample disposal or reuse (e.g., industrial/commercial RSLs).

EPA RSLs (industrial/commercial) were exceeded for pesticides in five of the 12 borings. EPA RSLs (industrial/commercial) were not exceeded for metals, with the exception of arsenic, which was compared to established background concentration (DTSC 2008). Arsenic exceeded background in four of the 12 borings. The exceedances for pesticides and arsenic coincided with samples where California-hazardous levels of pesticides and chromium were identified. Therefore, remediation of the soil with California-hazardous levels of pesticides would also remediate soil exceeding screening criteria.

VOCs do not appear to be of concern at the Site. In the 2016 limited investigation, low levels of VOCs were detected in one borings within the project area. In this investigation, no PID readings were above 0.3 parts per million (ppm) and one sample analyzed for VOCs was possibly impacted by laboratory cross-contamination with low levels of VOCs.

## **9 LIMITATIONS**

Tetra Tech conducted a soil characterization investigation at the Carriage Crest Park located at 23800 S. Figueroa Street, Carson, California to characterize the soil in the proposed construction area for waste classification. Limitations to the investigation included: sampling area limited to a portion of the Site, the evaluation of deeper conditions (greater than 15 feet bgs), and evaluation of groundwater at the Site, which were not included as part of the SOW authorized by the Client.

The findings in this Report are based solely upon Site conditions existing at the time of the performance of services. Tetra Tech is unable to report on, or accurately predict events that may impact the Site, whether occurring naturally or caused by external forces. The findings are based solely on the SOW conducted and the sources of information referenced in this Report. Additional information that becomes available concerning this Site should be provided to Tetra Tech so that further evaluation may be made, as necessary. Tetra Tech is not responsible for the subsequent separation, detachment, or partial use of this Report. No warranty or guarantee, whether expressed or implied, is made with respect to the findings expressed in this Report. LACSD may use and rely upon this Report consistent with the limitations cited herein. Any reliance on this Report by other third parties shall be at such party's sole risk.

Tetra Tech warrants that the services and findings provided to LACSD have been prepared, performed and rendered in accordance with procedures, practices, and standards generally accepted and customary in the consultant's profession for use in similar assignments. Our professional services have been performed and our findings obtained, in accordance with customary principles and practices in the fields of environmental science and engineering and the scope of work that was authorized by LACSD,

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It must be recognized that environmental investigations are inherently limited in the sense that the findings are based on information obtained from limited research and site investigation. All Site subsurface conditions were not field investigated as part of this Investigation. Additionally, the passage of time may result in a change in the environmental characteristics at this Site and surrounding properties. This Report does not warrant against future operations or conditions, nor does this warrant operations or conditions present of a type or at a location not investigated.

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Robert Kurkjian, PhD  
Project Manager



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Cari Ferrell, P.E.  
Project Engineer

## **Attachments**

Figures

Tables

Attachment A. Boring Logs

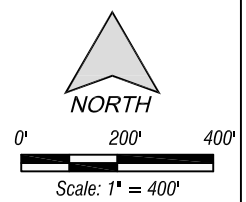
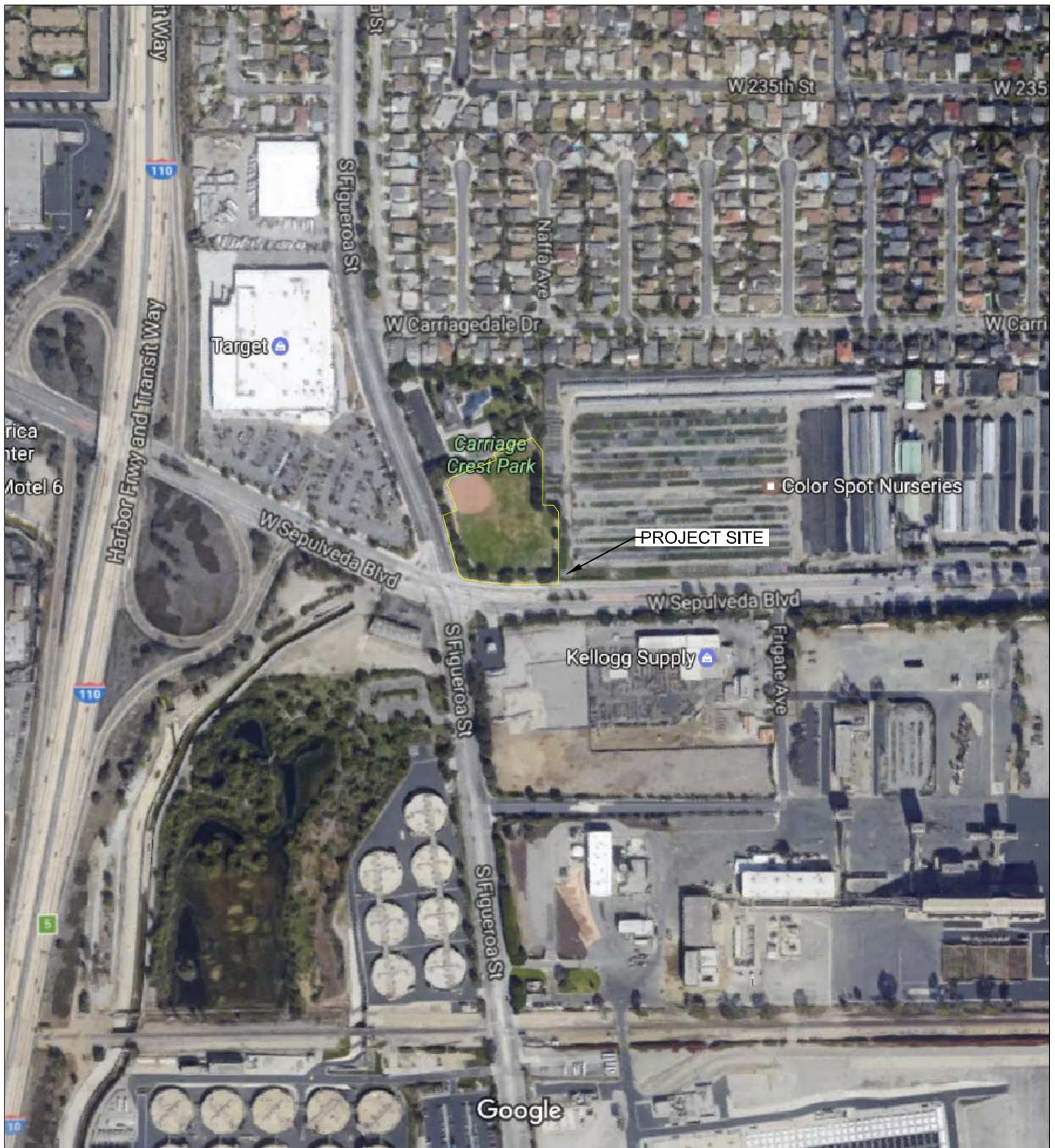
Attachment B. Laboratory Reports

## 10 REFERENCES

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## Figures





Reference : Google Maps (2018)  
 J:\PAS\PROJECTS\Other Clients\Carriage Crest\Figures 1-3\Figure 1.dwg

PROJECT MANAGER:	O.G.
PREPARED BY:	J.K.
CHECKED BY:	C.F.

Prepared By:






**Tetra Tech**  
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**Figure 1**  
 Site Location Map  
 Carriage Crest Park Water Capture  
 Carson, California

DATE	May 2017
SCALE	1"=400'
PROJECT NUMBER	100-SDG-T36285.01



**LEGEND**

-  B-5 Boring No. and Location (2016)
-  DP1 Boring No. and Location (2017)
-  Proposed Excavation Limits

Reference : Los Angeles County GIS Viewer (2014)  
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**Figure 2**  
 Site Layout and Boring Location Map

DATE	May 2017
SCALE	1"=80'
PROJECT NUMBER	100-SDG-T36285.01



**LEGEND**

-  B-5 Boring No. and Location (2016)
-  DP1 Boring No. and Location (2017)
-  Extents of Non-RCRA Hazardous Soil at 1' bgs
-  Extents of Non-RCRA Hazardous Soil at 10' bgs
-  Proposed Excavation Limits

Reference : Los Angeles County GIS Viewer (2014)  
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PREPARED BY:	J.K.		
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**Figure 3**  
 Proposed Extents of Impacted Soil

DATE	May 2017
SCALE	1"=80'
PROJECT NUMBER	100-SDG-T36285.01

## Tables

**Table 1.**  
**Pesticides Analytical Results**  
**(ug/kg)**

Boring ID	Sample ID	Sample Depth (ft bgs)	Sample Date	DDD	DDE	DDT	Endrin Ketone	Methoxychlor
DP1	DP1-1	1	4/19/2017	40	6,900	28	ND(<5.0)	ND(<5.0)
	DP1-3	3	4/19/2017	9.3	160	15	ND(<4.9)	ND(<4.9)
	DP1-5	5	4/19/2017	9.2	57	7.3	ND(<4.9)	ND(<4.9)
	DP1-8	8	4/19/2017	140	150	ND	ND(<5.0)	6.2
	DP1-8-00	8	4/19/2017	80	99	6.4	ND(<5.0)	ND(<5.0)
	DP1-10	10	4/19/2017	9,500	2,300	13,000	ND(<25)	ND(<25)
	DP1-10-00	10	4/19/2017	11,000	12,000	1,100	ND(<25)	ND(<25)
DP2	DP2-1	1	4/19/2017	5.7	110	11	ND(<4.9)	ND(<4.9)
	DP2-3	3	4/19/2017	ND(<5.0)	130	5.2	ND(<5.0)	ND(<5.0)
	DP2-5	5	4/19/2017	9.0	110	36	ND(<5.0)	ND(<5.0)
	DP2-8	8	4/19/2017	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP2-10	10	4/19/2017	150	560	5.8	ND(<5.0)	ND(<5.0)
	DP2-10-00	10	4/19/2017	26,000	19,000	2,900	ND(<500)	ND(<500)
	DP2-15	15	4/19/2017	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)
DP3	DP3-1	1	4/19/2017	ND(<5.0)	66	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP3-3	3	4/19/2017	ND(<5.0)	12	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP3-5	5	4/19/2017	ND(<5.0)	28	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP3-8	8	4/19/2017	18	120	17	ND(<5.0)	ND(<5.0)
	DP3-10	10	4/19/2017	24	200	36	ND(<5.0)	ND(<5.0)
	DP3-15	15	4/19/2017	NA	NA	NA	NA	NA
DP4	DP4-1	1	4/19/2017	380	74,000	280	92	ND
	DP4-3	3	4/19/2017	8.1	50	10	ND(<5.0)	ND(<5.0)
	DP4-5	5	4/19/2017	ND(<5.0)	22	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP4-8	8	4/19/2017	23	180	53	ND(<5.0)	ND(<5.0)
	DP4-10	10	4/19/2017	NA	NA	NA	NA	NA
	DP4-15	15	4/19/2017	NA	NA	NA	NA	NA
DP5	DP5-1	1	4/19/2017	77	13,000	110	6.5	ND(<4.9)
	DP5-3	3	4/19/2017	20	48	27	ND(<4.9)	ND(<4.9)
	DP5-5	5	4/19/2017	29	100	930	ND(<25)	ND(<25)
	DP5-8	8	4/19/2017	ND(<5.0)	ND(<5.0)	6.7	ND(<5.0)	ND(<5.0)
	DP5-10	10	4/19/2017	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP5-15	15	4/19/2017	NA	NA	NA	NA	NA
DP6	DP6-1	1	4/19/2017	1.07	36,000	120	20	ND(<4.9)
	DP6-3	3	4/19/2017	8.9	100	16	ND(<5.0)	ND(<5.0)
	DP6-5	5	4/19/2017	7.0	62	120	ND(<5.0)	ND(<5.0)
	DP6-8	8	4/19/2017	430	780	29	ND(<25)	ND(<25)
	DP6-10	10	4/19/2017	NA	NA	NA	NA	NA
	DP6-15	15	4/19/2017	NA	NA	NA	NA	NA
DP7	DP7-1	1	4/19/2017	34	7,900	52	7.9	ND(<5.0)
	DP7-3	3	4/19/2017	19	19	ND	ND(<5.0)	ND(<5.0)
	DP7-5	5	4/19/2017	ND(<5.0)	36	17	ND(<5.0)	ND(<5.0)
	DP7-8	8	4/19/2017	NA	NA	NA	NA	NA
	DP7-10	10	4/19/2017	NA	NA	NA	NA	NA
	DP7-15	15	4/19/2017	NA	NA	NA	NA	NA

**Table 1.**  
**Pesticides Analytical Results**  
**(ug/kg)**

Boring ID	Sample ID	Sample Depth (ft bgs)	Sample Date	DDD	DDE	DDT	Endrin Ketone	Methoxychlor
DP8	DP8-1	1	4/19/2017	82	5,200	25	ND(<5.0)	ND(<5.0)
	DP8-3	3	4/19/2017	ND(<5.0)	100	15	ND(<5.0)	ND(<5.0)
	DP8-5	5	4/19/2017	10	22	5.6	ND(<5.0)	ND(<5.0)
	DP8-8	8	4/19/2017	77	110	5.5	ND(<5.0)	ND(<5.0)
	DP8-8-00	8	4/19/2017	27	110	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP8-10	10	4/19/2017	NA	NA	NA	NA	NA
	DP8-15	15	4/19/2017	NA	NA	NA	NA	NA
DP9	DP9-1	1	4/19/2017	8.6	360	170	ND(<5.0)	ND(<5.0)
	DP9-3	3	4/19/2017	ND(<5.0)	19	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP9-5	5	4/19/2017	7.2	34	13	ND(<5.0)	ND(<5.0)
	DP9-8	8	4/19/2017	400	790	55	ND(<25)	ND(<25)
	DP9-10	10	4/19/2017	NA	NA	NA	NA	NA
	DP9-15	15	4/19/2017	NA	NA	NA	NA	NA
DP10	DP10-1	1	4/19/2017	ND(<5.0)	68	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP10-3	3	4/19/2017	8.5	130	60	ND(<5.0)	ND(<5.0)
	DP10-5	5	4/19/2017	19	43	24	ND(<4.9)	ND(<4.9)
	DP10-8	8	4/19/2017	5.3	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP10-10	10	4/19/2017	NA	NA	NA	NA	NA
	DP10-15	15	4/19/2017	NA	NA	NA	NA	NA
DP11	DP11-1	1	4/19/2017	23	3,100	62	ND(<5.0)	ND(<5.0)
	DP11-3	3	4/19/2017	8.5	9.7	ND	ND(<5.0)	ND(<5.0)
	DP11-3-00	3	4/19/2017	14	76	8.3	ND(<5.0)	ND(<5.0)
	DP11-5	5	4/19/2017	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP11-8	8	4/19/2017	NA	NA	NA	NA	NA
	DP11-10	10	4/19/2017	NA	NA	NA	NA	NA
	DP11-15	15	4/19/2017	NA	NA	NA	NA	NA
DP12	DP12-1	1	4/19/2017	90	6,800	260	ND(<5.0)	ND(<5.0)
	DP12-3	3	4/19/2017	8.9	37	6.9	ND(<5.0)	ND(<5.0)
	DP12-5	5	4/19/2017	7.3	16	6.2	ND(<5.0)	ND(<5.0)
	DP12-8	8	4/19/2017	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)
	DP12-10	10	4/19/2017	NA	NA	NA	NA	NA
	DP12-15	15	4/19/2017	NA	NA	NA	NA	NA
TTLC:				1,000	1,000	1,000	-	-
10xSTLC:				1,000	1,000	1,000	-	-
EPA RSLs - Industrial/Commercial				9,600	9,300	8,500	-	4,100,000

**Notes:**

All other pesticides not shown were not detected above the laboratory reporting limit

- = not established

ug/kg = micrograms per kilogram

NA = not analyzed (sample held)

ND = not detected above laboratory reporting limit

EPA RSL = U.S. Environmental Protection Agency Regional Screening Level

TCLP = toxicity characteristic leaching procedure

STLC = soluble threshold limit concentration

TTLC = total threshold limit concentration

**Table 2.  
Metals Analytical Results  
(mg/kg)**

Boring ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
DP1	DP1-1	1	4/19/2017	ND(<0.789)	6.60	263	0.610	5.75	90.2	9.33	88.9	106	0.670	32.0	ND(<0.789)	1.58	ND(<0.789)	38.0	273	0.552
	DP1-3	3	4/19/2017	ND(<0.714)	5.28	445	0.493	2.28	38.0	7.93	33.8	11.5	1.13	36.5	ND(<0.714)	ND(<0.238)	ND(<0.714)	55.2	82.7	ND(<0.0806)
	DP1-5	5	4/19/2017	ND(<0.769)	5.59	200	0.437	1.03	25.0	8.18	28.1	15.7	0.300	19.1	ND(<0.769)	ND(<0.256)	ND(<0.769)	36.1	81.5	0.0996
	DP1-8	8	4/19/2017	ND(<0.765)	5.33	185	0.587	0.647	28.0	12.8	33	28.4	ND(<0.255)	20.8	ND(<0.765)	ND(<0.255)	0.865	50.3	91.5	ND(<0.0794)
	DP1-8-00	8	4/19/2017	ND(<0.718)	5.63	357	0.564	1.27	35.8	12.5	35.9	16.2	0.858	32.4	ND(<0.718)	ND(<0.239)	ND(<0.718)	52.3	79.3	ND(<0.0794)
	DP1-10	10	4/19/2017	ND(<0.777)	18.3	475	0.66	17.3	394	14.9	448	405	2.39	127	ND(<0.777)	2.54	ND(<0.777)	50.9	1260	0.838
	DP1-10-00	10	4/19/2017	ND(<0.758)	16.1	383	0.542	11.7	276	12	306	195	1.54	80	ND(<0.758)	2.99	ND(<0.758)	42.7	668	0.961
DP2	DP2-1	1	4/19/2017	ND(<0.739)	9.29	821	0.621	2.80	44.8	13.1	38.1	6.53	4.11	51.9	ND(<0.739)	ND(<0.246)	ND(<0.739)	80.6	69.9	ND(<0.0794)
	DP2-3	3	4/19/2017	ND(<0.735)	5.64	193	0.407	1.00	24.4	8.14	23.0	11.0	1.00	19.7	ND(<0.735)	ND(<0.245)	ND(<0.735)	35.8	77.9	ND(<0.0833)
	DP2-5	5	4/19/2017	ND(<0.735)	5.95	226	0.491	1.14	26.5	9.43	27.0	12.4	0.365	23.1	ND(<0.735)	ND(<0.245)	ND(<0.735)	42.4	87.5	ND(<0.0794)
	DP2-8	8	4/19/2017	ND(<0.714)	9.58	195	0.618	0.529	29.0	14.5	33.4	24.1	ND(<0.238)	24.6	ND(<0.714)	ND(<0.238)	ND(<0.714)	51.9	78.6	ND(<0.0794)
	DP2-10	10	4/19/2017	ND(<0.735)	9.77	203	0.56	4.28	120	10.2	118	70.0	0.421	39.7	ND(<0.735)	1.25	ND(<0.735)	35.6	309	5.43
	DP2-10-00	10	4/19/2017	1.79	30.5	353	0.617	13.0	304	12.6	360	186	1.28	89.3	ND(<0.732)	3.51	ND(<0.732)	38.6	767	1.14
	DP2-15	15	4/19/2017	ND(<0.789)	4.29	276	0.624	1.72	35.1	11.7	29.4	7.05	4.72	35.8	ND(<0.789)	ND(<0.263)	ND(<0.789)	52.4	69.2	ND(<0.0794)
DP3	DP3-1	1	4/19/2017	ND(<0.789)	4.98	120	0.314	0.594	18.1	7.29	18.2	6.62	0.659	13.5	ND(<0.789)	ND(<0.263)	ND(<0.789)	30.9	52.2	ND(<0.0806)
	DP3-3	3	4/19/2017	ND(<0.789)	4.34	134	0.361	ND(<0.526)	18.2	7.32	18.5	6.66	0.427	14.4	ND(<0.789)	ND(<0.263)	ND(<0.789)	30.9	56.7	ND(<0.0794)
	DP3-5	5	4/19/2017	ND(<0.714)	6.51	163	0.505	1.05	23.1	10.8	24.4	10.2	0.636	20.7	ND(<0.714)	ND(<0.238)	ND(<0.714)	37.9	72.9	ND(<0.0877)
	DP3-8	8	4/19/2017	ND(<0.781)	6.29	123	0.521	ND(<0.521)	25.3	9.64	30.6	12.8	0.393	18.8	ND(<0.781)	ND(<0.260)	ND(<0.781)	45.6	73.8	ND(<0.0833)
	DP3-10	10	4/19/2017	ND(<0.765)	2.68	264	0.735	1.24	34.1	16.4	40.6	14.5	ND(<0.255)	25.2	ND(<0.765)	ND(<0.255)	ND(<0.765)	57.2	95.2	0.149
	DP3-15	15	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP4	DP4-1	1	4/19/2017	ND(<0.758)	13.5	594	0.949	15.2	200	11.8	198	218	1.33	59.7	ND(<0.758)	4.68	ND(<0.758)	50.8	572	1.76
	DP4-3	3	4/19/2017	ND(<0.714)	6.87	148	0.451	0.649	21.5	9.94	20.5	11.1	1.11	18.5	ND(<0.714)	ND(<0.238)	ND(<0.714)	36.4	68.7	ND(<0.0794)
	DP4-5	5	4/19/2017	ND(<0.750)	6.68	290	0.489	1.56	31	10.3	32.4	16.4	0.691	25.9	ND(<0.750)	ND(<0.250)	ND(<0.750)	45.5	89.9	0.0977
	DP4-8	8	4/19/2017	ND(<0.785)	6.74	233	0.676	1.57	45.8	14.4	48.5	34.1	0.419	26.9	ND(<0.785)	ND(<0.262)	ND(<0.785)	62	155	0.181
	DP4-10	10	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP4-15	15	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP5	DP5-1	1	4/19/2017	ND(<0.714)	7.66	230	0.496	3.10	56.2	8.47	59.5	52.9	0.726	27.4	ND(<0.714)	0.72	ND(<0.714)	38.5	141	0.139
	DP5-3	3	4/19/2017	ND(<0.714)	4.72	312	0.557	1.56	38.9	8.03	32.2	9.76	0.997	39.2	ND(<0.714)	ND(<0.238)	ND(<0.714)	51.6	82.3	ND(<0.0833)
	DP5-5	5	4/19/2017	ND(<0.714)	7.11	258	0.627	0.95	31.4	12.6	33.4	15.6	0.303	26.0	ND(<0.714)	ND(<0.238)	ND(<0.714)	50.6	104	ND(<0.0877)
	DP5-8	8	4/19/2017	ND(<0.718)	2.38	162	0.468	0.546	21.3	9.94	23.9	31.6	ND(<0.239)	16.4	ND(<0.718)	ND(<0.239)	ND(<0.718)	39	88.4	ND(<0.0862)
	DP5-10	10	4/19/2017	ND(<0.735)	2.65	120	0.605	ND(<0.490)	23.6	11.6	24.5	7.71	ND(<0.245)	15.7	ND(<0.735)	ND(<0.245)	ND(<0.735)	48.3	72.7	ND(<0.0794)
	DP5-15	15	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP6	DP6-1	1	4/19/2017	ND(<0.781)	8.68	217	0.460	4.57	42.7	8.56	67.4	34.6	0.646	28.3	ND(<0.781)	0.642	ND(<0.781)	41.4	150	1.07
	DP6-3	3	4/19/2017	ND(<0.743)	5.82	226	0.460	1.15	28.5	8.90	25.5	9.50	0.457	23.2	ND(<0.743)	ND(<0.248)	ND(<0.743)	43.5	68.8	ND(<0.0862)
	DP6-5	5	4/19/2017	ND(<0.714)	5.00	268	0.476	1.53	25.4	8.41	24.2	7.00	0.535	20.1	ND(<0.714)	ND(<0.238)	ND(<0.714)	41.3	67.6	ND(<0.0794)
	DP6-8	8	4/19/2017	ND(<0.743)	3.32	201	0.499	1.34	34.1	10.4	35.8	45.1	0.438	18.8	ND(<0.743)	ND(<0.248)	ND(<0.743)	39.4	131	ND(<0.0833)
	DP6-10	10	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP6-15	15	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP7	DP7-1	1	4/19/2017	ND(<0.714)	5.55	188	0.462	4.17	28.6	7.07	34.0	16.4	0.987	28.6	ND(<0.714)	0.292	ND(<0.714)	33.0	120	0.0951
	DP7-3	3	4/19/2017	ND(<0.781)	5.00	141	0.374	0.695	18.4	8.60	20.3	7.38	0.433	15.8	ND(<0.781)	ND(<0.260)	ND(<0.781)	31.4	55.7	ND(<0.0820)
	DP7-5	5	4/19/2017	ND(<0.758)	5.49	341	0.515	2.28	29.8	8.50	29.6	7.67	0.525	34.0	ND(<0.758)	ND(<0.253)	ND(<0.758)	48.4	74.0	ND(<0.0847)
	DP7-8	8	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP7-10	10	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP7-15	15	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 2.  
Metals Analytical Results  
(mg/kg)**

Boring ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury	
DP8	DP8-1	1	4/19/2017	ND(<0.777)	<b>16.8</b>	624	0.944	17.3	<b>266</b>	10.1	226	<b>328</b>	1.33	57.9	ND(<0.777)	5.74	ND(<0.777)	37.3	687	<b>1.06</b>	
	DP8-3	3	4/19/2017	ND(<0.758)	6.41	179	0.479	0.792	22.8	10.2	22.7	7.66	0.821	21.5	ND(<0.758)	ND(<0.253)	ND(<0.758)	41.1	59.8	ND(<0.0833)	
	DP8-5	5	4/19/2017	ND(<0.765)	7.91	319	0.547	2.88	<b>52.3</b>	9.91	50.4	<b>60.7</b>	0.455	31.4	ND(<0.765)	0.565	ND(<0.765)	46.6	210	0.410	
	DP8-8	8	4/19/2017	ND(<0.725)	3.58	192	0.583	1.02	27.2	11.3	30.3	30.4	0.659	19.4	ND(<0.725)	ND(<0.242)	ND(<0.725)	46.7	96.1	ND(<0.0794)	
	DP8-8-00	8	4/19/2017	ND(<0.728)	3.50	215	0.532	1.08	29.0	11.4	29.8	40.6	0.628	21.4	ND(<0.728)	ND(<0.243)	ND(<0.728)	47.8	111	0.129	
	DP8-10	10	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP8-15	15	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP9	DP9-1	1	4/19/2017	ND(<0.714)	6.70	173	0.417	0.968	25.8	8.71	28.4	12.9	0.599	19.4	ND(<0.714)	ND(<0.238)	ND(<0.714)	37.3	71.5	0.0874	
	DP9-3	3	4/19/2017	ND(<0.769)	5.55	202	0.501	0.834	26.0	9.62	25.8	14.5	0.373	21.0	ND(<0.769)	ND(<0.256)	ND(<0.769)	39.7	66.3	ND(<0.0794)	
	DP9-5	5	4/19/2017	ND(<0.721)	5.99	213	0.521	1.12	29.0	9.65	29.3	17.0	0.728	21.5	ND(<0.721)	ND(<0.240)	ND(<0.721)	43.5	79.7	ND(<0.0794)	
	DP9-8	8	4/19/2017	ND(<0.773)	2.32	192	0.479	1.1	42.8	8.1	37.1	39.1	0.272	18.2	ND(<0.773)	ND(<0.258)	ND(<0.773)	35.1	123	0.111	
	DP9-10	10	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP9-15	15	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP10	DP10-1	1	4/19/2017	ND(<0.746)	4.25	221	0.382	1.45	23.3	6.91	24.9	9.46	0.663	20.6	ND(<0.746)	ND(<0.249)	ND(<0.746)	33.5	60.6	ND(<0.0806)	
	DP10-3	3	4/19/2017	ND(<0.761)	4.48	146	0.350	0.668	17.1	6.83	17.4	6.82	0.596	14.6	ND(<0.761)	ND(<0.254)	ND(<0.761)	29.8	49.8	ND(<0.0794)	
	DP10-5	5	4/19/2017	ND(<0.750)	5.16	187	0.508	0.701	23.6	10.1	24.1	11.5	1.75	19.2	ND(<0.750)	ND(<0.250)	ND(<0.750)	42.3	61.3	ND(<0.0877)	
	DP10-8	8	4/19/2017	ND(<0.725)	ND(<0.725)	210	0.486	ND(<0.483)	18.1	10.1	17.9	6.43	ND(<0.242)	13.5	ND(<0.725)	ND(<0.242)	ND(<0.725)	44.7	60.2	ND(<0.0877)	
	DP10-10	10	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP10-15	15	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP11	DP11-1	1	4/19/2017	ND(<0.758)	8.54	263	0.523	3.99	<b>64.4</b>	7.93	70.9	<b>84.5</b>	0.58	26.3	ND(<0.758)	1.32	ND(<0.758)	33.1	276	0.377	
	DP11-3	3	4/19/2017	ND(<0.789)	5.07	225	0.472	1.16	24.2	10.6	27.4	11.9	0.647	22.8	ND(<0.789)	ND(<0.263)	ND(<0.789)	39.1	61.0	0.0879	
	DP11-3-00	3	4/19/2017	ND(<0.739)	4.41	146	0.416	1.12	29.4	8.92	29.5	30.3	0.708	16.4	ND(<0.739)	ND(<0.246)	ND(<0.739)	38.1	91.8	ND(<0.0794)	
	DP11-5	5	4/19/2017	ND(<0.765)	2.25	189	0.536	0.635	11.9	8.87	19.3	5.33	0.302	13.6	ND(<0.765)	ND(<0.255)	ND(<0.765)	21.3	37.9	ND(<0.0794)	
	DP11-8	8	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP11-10	10	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP11-15	15	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DP12	DP12-1	1	4/19/2017	ND(<0.728)	8.36	323	0.602	6.15	<b>107</b>	8.86	101	<b>127</b>	0.894	32.9	ND(<0.728)	2.18	ND(<0.728)	36.6	328	0.616	
	DP12-3	3	4/19/2017	ND(<0.714)	5.49	169	0.474	0.871	24.4	8.97	23.3	11.9	0.268	18.5	ND(<0.714)	ND(<0.238)	ND(<0.714)	38.0	63.8	0.0888	
	DP12-5	5	4/19/2017	ND(<0.777)	6.38	146	0.457	0.628	22.8	9.74	23.3	19.0	0.388	17.7	ND(<0.777)	ND(<0.259)	ND(<0.777)	40.3	62.7	ND(<0.0794)	
	DP12-8	8	4/19/2017	ND(<0.761)	1.08	101	0.432	ND(<0.508)	18.1	10.9	19.6	5.1	ND(<0.254)	14	ND(<0.761)	ND(<0.254)	ND(<0.761)	36.1	45.9	ND(<0.0794)	
	DP12-10	10	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	DP12-15	15	4/19/2017	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>TTL:</b>				<b>500</b>	<b>500</b>	<b>10,000</b>	<b>75</b>	<b>100</b>	<b>2,500</b>	<b>8,000</b>	<b>2,500</b>	<b>1,000</b>	<b>3,500</b>	<b>2,000</b>	<b>100</b>	<b>500</b>	<b>700</b>	<b>2,400</b>	<b>5,000</b>	<b>20</b>	
<b>10xSTLC:</b>				<b>150</b>	<b>50</b>	<b>1,000</b>	<b>7.5</b>	<b>10</b>	<b>50</b>	<b>800</b>	<b>250</b>	<b>50</b>	<b>3,500</b>	<b>200</b>	<b>10</b>	<b>50</b>	<b>70</b>	<b>240</b>	<b>2,500</b>	<b>2</b>	
<b>20xTCLP:</b>				-	<b>100</b>	<b>2,000</b>	-	<b>20</b>	<b>100</b>	-	-	<b>100</b>	-	-	<b>20</b>	<b>100</b>	-	-	-	<b>4</b>	
<b>EPA RSLs - Industrial/Commercial</b>				<b>470</b>	<b>12*</b>	<b>220,000</b>	<b>2,300</b>	<b>980</b>	<b>1,800,000</b>	<b>350</b>	<b>47,000</b>	<b>800</b>	<b>5,800</b>	<b>12,000</b>	<b>5,800</b>	<b>5,800</b>	<b>12</b>	<b>5,800</b>	<b>350,000</b>	<b>46</b>	

**Notes:**

- = not established

mg/kg = milligrams per kilogram

NA = not analyzed (sample held)

ND = not detected above method detection limit

TCLP = toxicity characteristic leaching procedure

STLC = soluble threshold limit concentration

TTL = total threshold limit concentration

\* = DTSC background concentration of 12 mg/kg used in place of EPA RSL of 3 mg/kg

**Yellow background** = Concentration exceeds 10xSTLC screening criteria; sample run by STLC method

**Orange background** = Concentration exceeds 20xTCLP screening criteria; sample run by TCLP method

**Bold** = Concentration exceeds EPA RSL



**Table 3.  
Metals STLC and TCLP Analytical Results  
(mg/L)**

Boring ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Type	Cadmium	Chromium	Copper	Lead
DP1	DP1-1	1	4/19/2017	STLC	NA	2.63	NA	3.78
				TCLP	NA	NA	NA	ND(<0.100)
	DP1-10	10	4/19/2017	STLC	0.383	19.9	1.46	11.0
				TCLP	NA	ND(<0.100)	NA	0.183
DP1-10-00	10	4/19/2017	STLC	0.353	6.70	1.15	7.30	
			TCLP	NA	ND(<0.100)	NA	ND(<0.100)	
DP-2	DP2-10-00	10	4/19/2017	STLC	0.143	0.870	1.72	1.84
				TCLP	NA	ND(<0.100)	NA	ND(<0.100)
DP4	DP4-1	1	4/19/2017	STLC	NA	7.66	NA	9.75
				TCLP	NA	ND(<0.100)	NA	ND(<0.100)
DP5	DP5-1	1	4/19/2017	STLC	NA	0.742	NA	0.505
DP8	DP8-1	1	4/19/2017	STLC	NA	15.3	NA	14.1
				TCLP	NA	ND(<0.100)	NA	ND(<0.100)
	DP8-5	5	4/19/2017	STLC	NA	0.903	NA	1.24
DP11	DP11-1	1	4/19/2017	STLC	NA	1.08	NA	2.16
DP12	DP12-1	1	4/19/2017	STLC	NA	5.54	NA	6.14
				TCLP	NA	ND(<0.100)	NA	ND(<0.100)
<b>STLC:</b>					<b>1</b>	<b>5</b>	<b>25</b>	<b>5</b>
<b>TCLP:</b>					<b>1</b>	<b>5</b>	<b>-</b>	<b>5</b>

**Notes:**

- = not established

mg/L = milligrams per liter

NA = not analyzed (sample held)

ND = not detected above method detection limit

TCLP = toxicity characteristic leaching procedure

STLC = soluble threshold limit concentration

TTLC = total threshold limit concentration

     California hazardous waste; concentration exceeds the STLC limit

Attachment A  
Boring Logs



**Tetra Tech**

**CLIENT** Los Angeles County Sanitation District  
**PROJECT NUMBER** 100-SDG-T36285.01  
**DATE STARTED** 4/19/17 **COMPLETED** 4/19/17  
**DRILLING CONTRACTOR** Millennium Environmental  
**DRILLING METHOD** Geoprobe  
**LOGGED BY** SF **CHECKED BY** CF  
**NOTES**

**PROJECT NAME** Carriage Crest Park  
**PROJECT LOCATION** 23800 S Figueroa St, Carson, CA 90745  
**GROUND ELEVATION** 26.5 ft **HOLE SIZE** 2.25 in  
**GROUND WATER LEVELS:**  
**AT TIME OF DRILLING** ---  
**AT END OF DRILLING** ---  
**AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
	DP1-1	SC		CLAYEY SAND, (SC) Dark brown (10YR 3/3 ) massive poorly graded fine sand (55%) with clay (45%). Mildly compact, moist with no odor or staining present.	PID = 0
	DP1-3				PID = 0
5	DP1-5				PID = 0
	DP1-8 DP1-8-00	CH		FAT CLAY, (CH) Very dark gray (2.5Y 3/1 ) massive clay (100%). Moderately compact, moist with no odor and minor black staining below 8 ft bgs.	PID = 0.1
10	DP1-10 DP1-10-00				PID = 0.1
15	DP1-15			Bottom of borehole at 15.0 feet.	PID = 0.1

GENERAL BH / TP / WELL - GINT STD US.GDT - 5/9/17 10:22 - J:\PAS\PROJECTS\OTHER CLIENTS\CARRIAGE CREST\PRE CHARACTERIZATION INVESTIGATION\FIELD DATA\CARRIAGE CREST PARK.GPJ



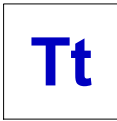
**Tetra Tech**

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**GROUND WATER LEVELS:**  
**AT TIME OF DRILLING** ---  
**AT END OF DRILLING** ---  
**AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
	DP2-1	SC		CLAYEY SAND, (SC) Dark brown (10YR 3/3 ) massive poorly graded fine sand (55%) with clay (45%). Mildly compact, moist with moderate odor and mild splotchey red iron oxide staining.	PID = 0
	DP2-3				PID = 0
5	DP2-5				PID = 0
	DP2-8	CH		FAT CLAY, (CH) Very dark gray (2.5Y 3/1 ) massive clay (100%). Moderately compact, moist with mild odor and black staining below 6 ft bgs.	PID = 0
10	DP2-10 DP2-10-00				PID = 0
15	DP2-15			Bottom of borehole at 15.0 feet.	PID = 0

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**DRILLING CONTRACTOR** Millennium Environmental  
**GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe **AT TIME OF DRILLING** ---  
**LOGGED BY** SF **CHECKED BY** CF **AT END OF DRILLING** ---  
**NOTES** Poor recovery between 5 and 10 ft bgs. **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
	DP3-1	SC		CLAYEY SAND, (SC) Dark brown (10YR 3/3 ) massive poorly graded fine sand (55%) with clay (45%). Mildly compact, moist with no odor or staining present.	PID = 0
	DP3-3				PID = 0
5	DP3-5				PID = 0
	DP3-8	CH		FAT CLAY, (CH) Very dark gray (2.5Y 3/1 ) massive clay (100%). Moderately compact, moist with no odor or staining present.	PID = 0
10	DP3-10				PID = 0
15	DP3-15			Bottom of borehole at 15.0 feet.	PID = 0

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**Tetra Tech**

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**PROJECT NUMBER** 100-SDG-T36285.01  
**DATE STARTED** 4/19/17 **COMPLETED** 4/19/17  
**DRILLING CONTRACTOR** Millennium Environmental  
**DRILLING METHOD** Geoprobe  
**LOGGED BY** SF **CHECKED BY** CF  
**NOTES**

**PROJECT NAME** Carriage Crest Park  
**PROJECT LOCATION** 23800 S Figueroa St, Carson, CA 90745  
**GROUND ELEVATION** 26.5 ft **HOLE SIZE** 2.25 in  
**GROUND WATER LEVELS:**  
**AT TIME OF DRILLING** ---  
**AT END OF DRILLING** ---  
**AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
0.5	DP4-1	SM		SILTY SAND, (SM) Dark grayish brown (10YR 4/2 ) granular well graded fine - coarse sand (70%) with silt (25%) and gravel (5%). Mildly compact, dry - moist with no odor or staining present.	PID = 0
	DP4-3			FAT CLAY, (CH) Very dark gray (2.5Y 3/1 ) massive clay (100%). Moderately compact, moist with no odor or staining present.	PID = 0
5	DP4-5				PID = 0
	DP4-8	CH			PID = 0
10	DP4-10				PID = 0
15	DP4-15			Bottom of borehole at 15.0 feet.	PID = 0

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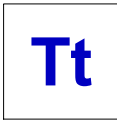


**CLIENT** Los Angeles County Sanitation District  
**PROJECT NUMBER** 100-SDG-T36285.01  
**DATE STARTED** 4/19/17 **COMPLETED** 4/19/17  
**DRILLING CONTRACTOR** Millennium Environmental  
**DRILLING METHOD** Geoprobe  
**LOGGED BY** SF **CHECKED BY** CF  
**NOTES**

**PROJECT NAME** Carriage Crest Park  
**PROJECT LOCATION** 23800 S Figueroa St, Carson, CA 90745  
**GROUND ELEVATION** 26.5 ft **HOLE SIZE** 2.25 in  
**GROUND WATER LEVELS:**  
**AT TIME OF DRILLING** ---  
**AT END OF DRILLING** ---  
**AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
1.0	DP5-1	SM		SILTY SAND, (SM) Brown (10YR 4/3 ) massive well graded fine - coarse sand (70%) with silt (25%) and gravel (5%). Mildly compact, dry - moist with no odor or staining present.	PID = 0
25.5	DP5-3				PID = 0
5.0	DP5-5	SC		CLAYEY SAND, (SC) Dark brown (10YR 3/3 ) massive poorly graded fine sand (55%) with clay (45%). Mildly compact, moist with no odor or staining present.	PID = 0
8.0	DP5-8				PID = 0
10.0	DP5-10	CH		FAT CLAY, (CH) Dark olive gray (5Y 3/2) massive clay (100%). Moderately compact, moist with no odor or staining present.	PID = 0
11.5	DP5-15				PID = 0
15.0				Bottom of borehole at 15.0 feet.	

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**GROUND ELEVATION** 26.5 ft **HOLE SIZE** 2.25 in  
**DRILLING CONTRACTOR** Millennium Environmental  
**GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe **AT TIME OF DRILLING** ---  
**LOGGED BY** SF **CHECKED BY** CF **AT END OF DRILLING** ---  
**NOTES** Poor recovery between 5 and 10 ft bgs. **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
	DP6-1	SC		CLAYEY SAND, (SC) Dark brown (10YR 3/3 ) massive poorly graded fine sand (55%) with clay (45%). Mildly compact, moist with no odor or staining present.	PID = 0
	DP6-3				PID = 0
5	DP6-5				PID = 0
	DP6-8	CH		FAT CLAY, (CH) Very dark gray (2.5Y 3/1 ) massive clay (100%). Moderately compact, moist with no odor or staining present.	PID = 0
10	DP6-10				PID = 0
15	DP6-15			Bottom of borehole at 15.0 feet.	PID = 0.3

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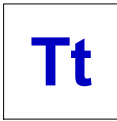
**Tetra Tech**

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**DRILLING CONTRACTOR** Millennium Environmental  
**DRILLING METHOD** Geoprobe  
**LOGGED BY** SF **CHECKED BY** CF  
**NOTES**

**PROJECT NAME** Carriage Crest Park  
**PROJECT LOCATION** 23800 S Figueroa St, Carson, CA 90745  
**GROUND ELEVATION** 26.5 ft **HOLE SIZE** 2.25 in  
**GROUND WATER LEVELS:**  
**AT TIME OF DRILLING** ---  
**AT END OF DRILLING** ---  
**AFTER DRILLING** ---



DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
	DP7-1	SC		CLAYEY SAND, (SC) Dark brown (10YR 3/3 ) massive poorly graded fine sand (55%) with clay (45%). Mildly compact, moist with no odor and mild splotchey red iron oxide staining.	PID = 0
	DP7-3			FAT CLAY, (CH) Dark olive gray (5Y 3/2) massive clay (100%). Moderately compact, moist with no odor or staining present.	PID = 0
5	DP7-5				PID = 0
	DP7-8	CH			PID = 0.1
10	DP7-10				PID = 0
15	DP7-15			Bottom of borehole at 15.0 feet.	PID = 0

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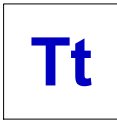


**Tetra Tech**

**CLIENT** Los Angeles County Sanitation District  
**PROJECT NAME** Carriage Crest Park  
**PROJECT NUMBER** 100-SDG-T36285.01  
**PROJECT LOCATION** 23800 S Figueroa St, Carson, CA 90745  
**DATE STARTED** 4/19/17 **COMPLETED** 4/19/17  
**GROUND ELEVATION** 26.5 ft **HOLE SIZE** 2.25 in  
**DRILLING CONTRACTOR** Millennium Environmental  
**GROUND WATER LEVELS:**  
**DRILLING METHOD** Geoprobe **AT TIME OF DRILLING** ---  
**LOGGED BY** SF **CHECKED BY** CF **AT END OF DRILLING** ---  
**NOTES** **AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
	DP8-1	SC		CLAYEY SAND, (SC) Dark brown (10YR 3/3 ) massive poorly graded fine sand (55%) with clay (45%). Mildly compact, moist with no odor or staining present.	PID = 0
	DP8-3				PID = 0
5	DP8-5				PID = 0
	DP8-8 DP8-8-00	CH		FAT CLAY, (CH) Dark olive gray (5Y 3/2) massive clay (100%). Moderately compact, moist with no odor or staining present. Color change at 9ft bgs to olive brown (2.5Y 4/3).	PID = 0
10	DP8-10				PID = 0
15	DP8-15			Bottom of borehole at 15.0 feet.	PID = 0

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**Tetra Tech**

**CLIENT** Los Angeles County Sanitation District  
**PROJECT NUMBER** 100-SDG-T36285.01  
**DATE STARTED** 4/19/17 **COMPLETED** 4/19/17  
**DRILLING CONTRACTOR** Millennium Environmental  
**DRILLING METHOD** Geoprobe  
**LOGGED BY** SF **CHECKED BY** CF  
**NOTES**

**PROJECT NAME** Carriage Crest Park  
**PROJECT LOCATION** 23800 S Figueroa St, Carson, CA 90745  
**GROUND ELEVATION** 26.5 ft **HOLE SIZE** 2.25 in  
**GROUND WATER LEVELS:**  
**AT TIME OF DRILLING** ---  
**AT END OF DRILLING** ---  
**AFTER DRILLING** ---







GENERAL BH / TP / WELL - GINT STD US.GDT - 5/9/17 10:22 - J:\PAS\PROJECTS\OTHER CLIENTS\CARRIAGE CREST\PRE CHARACTERIZATION INVESTIGATION\FIELD DATA\CARRIAGE CREST PARK.GPJ

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
	DP9-1	SC		CLAYEY SAND, (SC) Dark brown (10YR 3/3 ) massive poorly graded fine sand (55%) with clay (45%). Mildly compact, moist with no odor or staining present.	PID = 0
	DP9-3				PID = 0
5	DP9-5				PID = 0
	DP9-8	CH			PID = 0
10	DP9-10				PID = 0
15	DP9-15			Bottom of borehole at 15.0 feet.	PID = 0



**CLIENT** Los Angeles County Sanitation District  
**PROJECT NUMBER** 100-SDG-T36285.01  
**DATE STARTED** 4/19/17 **COMPLETED** 4/19/17  
**DRILLING CONTRACTOR** Millennium Environmental  
**DRILLING METHOD** Geoprobe  
**LOGGED BY** SF **CHECKED BY** CF  
**NOTES** Poor recovery between 5 and 10 ft bgs.

**PROJECT NAME** Carriage Crest Park  
**PROJECT LOCATION** 23800 S Figueroa St, Carson, CA 90745  
**GROUND ELEVATION** 26.5 ft **HOLE SIZE** 2.25 in  
**GROUND WATER LEVELS:**  
**AT TIME OF DRILLING** ---  
**AT END OF DRILLING** ---  
**AFTER DRILLING** ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
1.0	DP10-1	SM		SILTY SAND, (SM) Reddish brown (5YR 4/4) granular poorly graded fine sand (55%) and silt (45%). Mildly compact, dry with no odor or staining present. Baseball diamond infill material.	PID = 0
2.5	DP10-3				PID = 0
5.0	DP10-5				PID = 0
8.0	DP10-8	CH		FAT CLAY, (CH) Dark reddish brown (5YR 3/2) massive clay (100%). Moderately compact, moist with no odor or staining present. Compaction increases from mild to moderate with depth.	PID = 0
10.0	DP10-10				PID = 0
15.0	DP10-15				PID = 0
				Bottom of borehole at 15.0 feet.	

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CLIENT Los Angeles County Sanitation District

PROJECT NAME Carriage Crest Park

PROJECT NUMBER 100-SDG-T36285.01

PROJECT LOCATION 23800 S Figueroa St, Carson, CA 90745

DATE STARTED 4/19/17 COMPLETED 4/19/17

GROUND ELEVATION 26.5 ft HOLE SIZE 2.25 in

DRILLING CONTRACTOR Millennium Environmental

GROUND WATER LEVELS:

DRILLING METHOD Geoprobe







AT TIME OF DRILLING ---

LOGGED BY SF CHECKED BY CF

AT END OF DRILLING ---

NOTES Poor recovery between 0 and 5 ft bgs.

AFTER DRILLING ---



DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
	DP11-1	SC		CLAYEY SAND, (SC) Dark brown (10YR 3/3 ) massive poorly graded fine sand (55%) with clay (45%). Mildly compact, moist with no odor or staining present.	PID = 0
	DP11-3 DP11-3-00				PID = 0
5	DP11-5				PID = 0
	DP11-8	CH			PID = 0
10	DP11-10				PID = 0
	DP11-15				PID = 0
15				Bottom of borehole at 15.0 feet.	

GENERAL BH / TP / WELL - GINT STD U.S.GDT - 5/9/17 10:22 - J:\PAS\PROJECTS\OTHER CLIENTS\CARRIAGE CREST\PRE CHARACTERIZATION INVESTIGATION\FIELD DATA\CARRIAGE CREST PARK.GPJ



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**DRILLING METHOD** Geoprobe  
**LOGGED BY** SF **CHECKED BY** CF  
**NOTES** Poor recovery between 5 and 10 ft bgs.

**PROJECT NAME** Carriage Crest Park  
**PROJECT LOCATION** 23800 S Figueroa St, Carson, CA 90745  
**GROUND ELEVATION** 26.5 ft **HOLE SIZE** 2.25 in  
**GROUND WATER LEVELS:**  
**AT TIME OF DRILLING** ---  
**AT END OF DRILLING** ---  
**AFTER DRILLING** ---

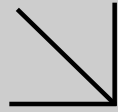
DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0					
	DP12-1	SC		(SC) Dark brown (10YR 3/3 ) massive poorly graded fine sand (55%) with clay (45%). Mildly compact, moist with no odor or staining present.	PID = 0
	DP12-3				PID = 0
5	DP12-5				PID = 0
	DP12-8	CH			PID = 0
10	DP12-10				PID = 0
15	DP12-15				PID = 0
				Bottom of borehole at 15.0 feet.	

GENERAL BH / TP / WELL - GINT STD U.S.GDT - 5/9/17 10:23 - J:\PAS\PROJECTS\OTHER CLIENTS\CARRIAGE CREST\PRE CHARACTERIZATION INVESTIGATION\FIELD DATA\CARRIAGE CREST PARK.GPJ

Attachment B  
Laboratory Reports



Calscience



**WORK ORDER NUMBER: 17-04-1498**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Tetra Tech, Inc.

**Client Project Name:** Carriage Crest Park (CCP)

**Attention:** Cari Ferrell  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

*Vikas Patel*

Approved for release on 05/18/2017 by:  
Vikas Patel  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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 Work Order Number: 17-04-1498

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**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 04/20/17. They were assigned to Work Order 17-04-1498.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
Received: 04/20/17

Attn: Cari Ferrell

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP1-1 (17-04-1498-1)						
Arsenic	6.60		0.789	mg/kg	EPA 6010B	EPA 3050B
Barium	263		0.526	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.610		0.263	mg/kg	EPA 6010B	EPA 3050B
Cadmium	5.75		0.526	mg/kg	EPA 6010B	EPA 3050B
Chromium	90.2		0.263	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.33		0.263	mg/kg	EPA 6010B	EPA 3050B
Copper	88.9		0.526	mg/kg	EPA 6010B	EPA 3050B
Lead	106		0.526	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.670		0.263	mg/kg	EPA 6010B	EPA 3050B
Nickel	32.0		0.263	mg/kg	EPA 6010B	EPA 3050B
Silver	1.58		0.263	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.0		0.263	mg/kg	EPA 6010B	EPA 3050B
Zinc	273		1.05	mg/kg	EPA 6010B	EPA 3050B
Chromium	2.63		0.100	mg/L	EPA 6010B	T22.11.5. All
Lead	3.78		0.100	mg/L	EPA 6010B	T22.11.5. All
Mercury	0.552		0.0847	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	40		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	6900		2500	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	28		5.0	ug/kg	EPA 8081A	EPA 3545
DP1-3 (17-04-1498-2)						
Arsenic	5.28		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	445		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.493		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	2.28		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	38.0		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.93		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	33.8		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	11.5		0.476	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.13		0.238	mg/kg	EPA 6010B	EPA 3050B
Nickel	36.5		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	55.2		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	82.7		0.952	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	9.3		4.9	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	160		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	15		4.9	ug/kg	EPA 8081A	EPA 3545

\* MDL is shown



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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP1-5 (17-04-1498-3)						
Arsenic	5.59		0.769	mg/kg	EPA 6010B	EPA 3050B
Barium	200		0.513	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.437		0.256	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.03		0.513	mg/kg	EPA 6010B	EPA 3050B
Chromium	25.0		0.256	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.18		0.256	mg/kg	EPA 6010B	EPA 3050B
Copper	28.1		0.513	mg/kg	EPA 6010B	EPA 3050B
Lead	15.7		0.513	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.300		0.256	mg/kg	EPA 6010B	EPA 3050B
Nickel	19.1		0.256	mg/kg	EPA 6010B	EPA 3050B
Vanadium	36.1		0.256	mg/kg	EPA 6010B	EPA 3050B
Zinc	81.5		1.03	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0996		0.0806	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	9.2		4.9	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	57		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	7.3		4.9	ug/kg	EPA 8081A	EPA 3545
DP1-8 (17-04-1498-4)						
Arsenic	5.33		0.765	mg/kg	EPA 6010B	EPA 3050B
Barium	185		0.510	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.587		0.255	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.647		0.510	mg/kg	EPA 6010B	EPA 3050B
Chromium	28.0		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.8		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	33.0		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	28.4		0.510	mg/kg	EPA 6010B	EPA 3050B
Nickel	20.8		0.255	mg/kg	EPA 6010B	EPA 3050B
Thallium	0.865		0.765	mg/kg	EPA 6010B	EPA 3050B
Vanadium	50.3		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	91.5		1.02	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	140		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	150		25	ug/kg	EPA 8081A	EPA 3545
Methoxychlor	6.2		5.0	ug/kg	EPA 8081A	EPA 3545


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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP1-10 (17-04-1498-5)						
Arsenic	18.3		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	475		0.518	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.660		0.259	mg/kg	EPA 6010B	EPA 3050B
Cadmium	17.3		0.518	mg/kg	EPA 6010B	EPA 3050B
Chromium	394		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	14.9		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	448		0.518	mg/kg	EPA 6010B	EPA 3050B
Lead	405		0.518	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	2.39		0.259	mg/kg	EPA 6010B	EPA 3050B
Nickel	127		0.259	mg/kg	EPA 6010B	EPA 3050B
Silver	2.54		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	50.9		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	1260		1.04	mg/kg	EPA 6010B	EPA 3050B
Lead	0.183		0.100	mg/L	EPA 6010B	EPA 1311
Cadmium	0.383		0.100	mg/L	EPA 6010B	T22.11.5. All
Chromium	19.9		0.100	mg/L	EPA 6010B	T22.11.5. All
Copper	1.46		0.100	mg/L	EPA 6010B	T22.11.5. All
Lead	11.0		0.100	mg/L	EPA 6010B	T22.11.5. All
Mercury	0.838		0.0877	mg/kg	EPA 7471A	EPA 7471A Total
TPH as Diesel	390	HD,ET	5.0	mg/kg	EPA 8015B (M)	EPA 3550B
4,4'-DDD	9500		2500	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	2300		500	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	13000		2500	ug/kg	EPA 8081A	EPA 3545
2-Butanone	37	BU	19	ug/kg	EPA 8260B	EPA 5035
Chlorobenzene	2.1	BU	0.97	ug/kg	EPA 8260B	EPA 5035
Chloroethane	2.0	BU	1.9	ug/kg	EPA 8260B	EPA 5035
DP1-15 (17-04-1498-6)						
Barium	175		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.676		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.886		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	22.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	15.8		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	21.3		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	7.23		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	17.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	43.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	52.3		1.00	mg/kg	EPA 6010B	EPA 3050B

\* MDL is shown



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3475 East Foothill Blvd., Suite 300  
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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP2-1 (17-04-1498-7)						
Arsenic	9.29		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	821		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.621		0.246	mg/kg	EPA 6010B	EPA 3050B
Cadmium	2.80		0.493	mg/kg	EPA 6010B	EPA 3050B
Chromium	44.8		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	13.1		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	38.1		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	6.53		0.493	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	4.11		0.246	mg/kg	EPA 6010B	EPA 3050B
Nickel	51.9		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	80.6		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	69.9		0.985	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	5.7		4.9	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	110		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	11		4.9	ug/kg	EPA 8081A	EPA 3545
DP2-3 (17-04-1498-8)						
Arsenic	5.64		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	193		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.407		0.245	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.00		0.490	mg/kg	EPA 6010B	EPA 3050B
Chromium	24.4		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.14		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	23.0		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	11.0		0.490	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.00		0.245	mg/kg	EPA 6010B	EPA 3050B
Nickel	19.7		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.8		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	77.9		0.980	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDE	130		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	5.2		5.0	ug/kg	EPA 8081A	EPA 3545

\* MDL is shown



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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
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Attn: Cari Ferrell

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP2-5 (17-04-1498-9)						
Arsenic	5.95		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	226		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.491		0.245	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.14		0.490	mg/kg	EPA 6010B	EPA 3050B
Chromium	26.5		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.43		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	27.0		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	12.4		0.490	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.365		0.245	mg/kg	EPA 6010B	EPA 3050B
Nickel	23.1		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	42.4		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	87.5		0.980	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	9.0		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	110		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	36		5.0	ug/kg	EPA 8081A	EPA 3545
DP2-8 (17-04-1498-10)						
Arsenic	9.58		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	195		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.618		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.529		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	29.0		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	14.5		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	33.4		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	24.1		0.476	mg/kg	EPA 6010B	EPA 3050B
Nickel	24.6		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	51.9		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	78.6		0.952	mg/kg	EPA 6010B	EPA 3050B

\* MDL is shown



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## Detections Summary

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3475 East Foothill Blvd., Suite 300  
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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP2-10 (17-04-1498-11)						
Arsenic	9.77		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	203		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.560		0.245	mg/kg	EPA 6010B	EPA 3050B
Cadmium	4.28		0.490	mg/kg	EPA 6010B	EPA 3050B
Chromium	120		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.2		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	118		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	70.0		0.490	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.421		0.245	mg/kg	EPA 6010B	EPA 3050B
Nickel	39.7		0.245	mg/kg	EPA 6010B	EPA 3050B
Silver	1.25		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.6		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	309		0.980	mg/kg	EPA 6010B	EPA 3050B
Mercury	5.43		0.806	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	150		100	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	560		100	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	5.8		5.0	ug/kg	EPA 8081A	EPA 3545
DP2-15 (17-04-1498-12)						
Arsenic	4.29		0.789	mg/kg	EPA 6010B	EPA 3050B
Barium	276		0.526	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.624		0.263	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.72		0.526	mg/kg	EPA 6010B	EPA 3050B
Chromium	35.1		0.263	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.7		0.263	mg/kg	EPA 6010B	EPA 3050B
Copper	29.4		0.526	mg/kg	EPA 6010B	EPA 3050B
Lead	7.05		0.526	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	4.72		0.263	mg/kg	EPA 6010B	EPA 3050B
Nickel	35.8		0.263	mg/kg	EPA 6010B	EPA 3050B
Vanadium	52.4		0.263	mg/kg	EPA 6010B	EPA 3050B
Zinc	69.2		1.05	mg/kg	EPA 6010B	EPA 3050B


  
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## Detections Summary

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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP3-1 (17-04-1498-13)						
Arsenic	4.98		0.789	mg/kg	EPA 6010B	EPA 3050B
Barium	120		0.526	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.314		0.263	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.594		0.526	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.1		0.263	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.29		0.263	mg/kg	EPA 6010B	EPA 3050B
Copper	18.2		0.526	mg/kg	EPA 6010B	EPA 3050B
Lead	6.62		0.526	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.659		0.263	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.5		0.263	mg/kg	EPA 6010B	EPA 3050B
Vanadium	30.9		0.263	mg/kg	EPA 6010B	EPA 3050B
Zinc	52.2		1.05	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDE	66		25	ug/kg	EPA 8081A	EPA 3545
DP3-3 (17-04-1498-14)						
Arsenic	4.34		0.789	mg/kg	EPA 6010B	EPA 3050B
Barium	134		0.526	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.361		0.263	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.2		0.263	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.32		0.263	mg/kg	EPA 6010B	EPA 3050B
Copper	18.5		0.526	mg/kg	EPA 6010B	EPA 3050B
Lead	6.66		0.526	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.427		0.263	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.4		0.263	mg/kg	EPA 6010B	EPA 3050B
Vanadium	30.9		0.263	mg/kg	EPA 6010B	EPA 3050B
Zinc	56.7		1.05	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDE	12		5.0	ug/kg	EPA 8081A	EPA 3545


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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP3-5 (17-04-1498-15)						
Arsenic	6.51		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	163		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.505		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.05		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	23.1		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.8		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	24.4		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	10.2		0.476	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.636		0.238	mg/kg	EPA 6010B	EPA 3050B
Nickel	20.7		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	37.9		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	72.9		0.952	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDE	28		5.0	ug/kg	EPA 8081A	EPA 3545
DP3-8 (17-04-1498-16)						
Arsenic	6.29		0.781	mg/kg	EPA 6010B	EPA 3050B
Barium	123		0.521	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.521		0.260	mg/kg	EPA 6010B	EPA 3050B
Chromium	25.3		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.64		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	30.6		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	12.8		0.521	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.393		0.260	mg/kg	EPA 6010B	EPA 3050B
Nickel	18.8		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	45.6		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	73.8		1.04	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	18		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	120		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	17		5.0	ug/kg	EPA 8081A	EPA 3545


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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP3-10 (17-04-1498-17)						
Arsenic	2.68		0.765	mg/kg	EPA 6010B	EPA 3050B
Barium	264		0.510	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.735		0.255	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.24		0.510	mg/kg	EPA 6010B	EPA 3050B
Chromium	34.1		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	16.4		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	40.6		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	14.5		0.510	mg/kg	EPA 6010B	EPA 3050B
Nickel	25.2		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	57.2		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	95.2		1.02	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.149		0.0794	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	24		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	200		50	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	36		5.0	ug/kg	EPA 8081A	EPA 3545
DP4-1 (17-04-1498-19)						
Arsenic	13.5		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	594		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.949		0.253	mg/kg	EPA 6010B	EPA 3050B
Cadmium	15.2		0.505	mg/kg	EPA 6010B	EPA 3050B
Chromium	200		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.8		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	198		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	218		0.505	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.33		0.253	mg/kg	EPA 6010B	EPA 3050B
Nickel	59.7		0.253	mg/kg	EPA 6010B	EPA 3050B
Silver	4.68		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	50.8		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	572		1.01	mg/kg	EPA 6010B	EPA 3050B
Chromium	7.66		0.100	mg/L	EPA 6010B	T22.11.5. All
Lead	9.75		0.100	mg/L	EPA 6010B	T22.11.5. All
Mercury	1.76		0.0862	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	380		50	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	74000		25000	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	280		50	ug/kg	EPA 8081A	EPA 3545
Endrin Ketone	92		50	ug/kg	EPA 8081A	EPA 3545

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## Detections Summary

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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP4-3 (17-04-1498-20)						
Arsenic	6.87		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	148		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.451		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.649		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	21.5		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.94		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	20.5		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	11.1		0.476	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.11		0.238	mg/kg	EPA 6010B	EPA 3050B
Nickel	18.5		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	36.4		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	68.7		0.952	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	8.1		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	50		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	10		5.0	ug/kg	EPA 8081A	EPA 3545
DP4-5 (17-04-1498-21)						
Arsenic	6.68		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	290		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.489		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.56		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	31.0		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	32.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	16.4		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.691		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	25.9		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	45.5		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	89.9		1.00	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0977		0.0833	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDE	22		5.0	ug/kg	EPA 8081A	EPA 3545


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## Detections Summary

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3475 East Foothill Blvd., Suite 300  
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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP4-8 (17-04-1498-22)						
Arsenic	6.74		0.785	mg/kg	EPA 6010B	EPA 3050B
Barium	233		0.524	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.676		0.262	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.57		0.524	mg/kg	EPA 6010B	EPA 3050B
Chromium	45.8		0.262	mg/kg	EPA 6010B	EPA 3050B
Cobalt	14.4		0.262	mg/kg	EPA 6010B	EPA 3050B
Copper	48.5		0.524	mg/kg	EPA 6010B	EPA 3050B
Lead	34.1		0.524	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.419		0.262	mg/kg	EPA 6010B	EPA 3050B
Nickel	26.9		0.262	mg/kg	EPA 6010B	EPA 3050B
Vanadium	62.0		0.262	mg/kg	EPA 6010B	EPA 3050B
Zinc	155		1.05	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.181		0.0794	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	23		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	180		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	53		25	ug/kg	EPA 8081A	EPA 3545
DP5-1 (17-04-1498-25)						
Arsenic	7.66		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	230		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.496		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	3.10		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	56.2		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.47		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	59.5		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	52.9		0.476	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.726		0.238	mg/kg	EPA 6010B	EPA 3050B
Nickel	27.4		0.238	mg/kg	EPA 6010B	EPA 3050B
Silver	0.720		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.5		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	141		0.952	mg/kg	EPA 6010B	EPA 3050B
Chromium	0.742		0.100	mg/L	EPA 6010B	T22.11.5. All
Lead	0.505		0.100	mg/L	EPA 6010B	T22.11.5. All
Mercury	0.139		0.0862	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	77		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	13000		2500	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	110		25	ug/kg	EPA 8081A	EPA 3545
Endrin Ketone	6.5		4.9	ug/kg	EPA 8081A	EPA 3545

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## Detections Summary

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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP5-3 (17-04-1498-26)						
Arsenic	4.72		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	312		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.557		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.56		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	38.9		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.03		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	32.2		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	9.76		0.476	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.997		0.238	mg/kg	EPA 6010B	EPA 3050B
Nickel	39.2		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	51.6		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	82.3		0.952	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	20		4.9	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	48		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	27		4.9	ug/kg	EPA 8081A	EPA 3545
DP5-5 (17-04-1498-27)						
Arsenic	7.11		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	258		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.627		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.950		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	31.4		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.6		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	33.4		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	15.6		0.476	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.303		0.238	mg/kg	EPA 6010B	EPA 3050B
Nickel	26.0		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	50.6		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	104		0.952	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	29		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	100		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	930		250	ug/kg	EPA 8081A	EPA 3545


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## Detections Summary

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3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP5-8 (17-04-1498-28)						
Arsenic	2.38		0.718	mg/kg	EPA 6010B	EPA 3050B
Barium	162		0.478	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.468		0.239	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.546		0.478	mg/kg	EPA 6010B	EPA 3050B
Chromium	21.3		0.239	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.94		0.239	mg/kg	EPA 6010B	EPA 3050B
Copper	23.9		0.478	mg/kg	EPA 6010B	EPA 3050B
Lead	31.6		0.478	mg/kg	EPA 6010B	EPA 3050B
Nickel	16.4		0.239	mg/kg	EPA 6010B	EPA 3050B
Vanadium	39.0		0.239	mg/kg	EPA 6010B	EPA 3050B
Zinc	88.4		0.957	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDT	6.7		5.0	ug/kg	EPA 8081A	EPA 3545
DP5-10 (17-04-1498-29)						
Arsenic	2.65		0.735	mg/kg	EPA 6010B	EPA 3050B
Barium	120		0.490	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.605		0.245	mg/kg	EPA 6010B	EPA 3050B
Chromium	23.6		0.245	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.6		0.245	mg/kg	EPA 6010B	EPA 3050B
Copper	24.5		0.490	mg/kg	EPA 6010B	EPA 3050B
Lead	7.71		0.490	mg/kg	EPA 6010B	EPA 3050B
Nickel	15.7		0.245	mg/kg	EPA 6010B	EPA 3050B
Vanadium	48.3		0.245	mg/kg	EPA 6010B	EPA 3050B
Zinc	72.7		0.980	mg/kg	EPA 6010B	EPA 3050B


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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP6-1 (17-04-1498-31)						
Arsenic	8.68		0.781	mg/kg	EPA 6010B	EPA 3050B
Barium	217		0.521	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.460		0.260	mg/kg	EPA 6010B	EPA 3050B
Cadmium	4.57		0.521	mg/kg	EPA 6010B	EPA 3050B
Chromium	42.7		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.56		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	67.4		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	34.6		0.521	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.646		0.260	mg/kg	EPA 6010B	EPA 3050B
Nickel	28.3		0.260	mg/kg	EPA 6010B	EPA 3050B
Silver	0.642		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	41.4		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	150		1.04	mg/kg	EPA 6010B	EPA 3050B
Mercury	1.07		0.862	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	1100		490	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	36000		25000	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	120		25	ug/kg	EPA 8081A	EPA 3545
Endrin Ketone	20		4.9	ug/kg	EPA 8081A	EPA 3545
DP6-3 (17-04-1498-32)						
Arsenic	5.82		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	226		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.460		0.248	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.15		0.495	mg/kg	EPA 6010B	EPA 3050B
Chromium	28.5		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.90		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	25.5		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	9.50		0.495	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.457		0.248	mg/kg	EPA 6010B	EPA 3050B
Nickel	23.2		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	43.5		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	68.8		0.990	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	8.9		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	100		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	16		5.0	ug/kg	EPA 8081A	EPA 3545

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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP6-5 (17-04-1498-33)						
Arsenic	5.00		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	268		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.476		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.53		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	25.4		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.41		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	24.2		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	7.00		0.476	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.535		0.238	mg/kg	EPA 6010B	EPA 3050B
Nickel	20.1		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	41.3		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	67.6		0.952	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	7.0		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	62		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	120		25	ug/kg	EPA 8081A	EPA 3545
DP6-8 (17-04-1498-34)						
Arsenic	3.32		0.743	mg/kg	EPA 6010B	EPA 3050B
Barium	201		0.495	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.499		0.248	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.34		0.495	mg/kg	EPA 6010B	EPA 3050B
Chromium	34.1		0.248	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.4		0.248	mg/kg	EPA 6010B	EPA 3050B
Copper	35.8		0.495	mg/kg	EPA 6010B	EPA 3050B
Lead	45.1		0.495	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.438		0.248	mg/kg	EPA 6010B	EPA 3050B
Nickel	18.8		0.248	mg/kg	EPA 6010B	EPA 3050B
Vanadium	39.4		0.248	mg/kg	EPA 6010B	EPA 3050B
Zinc	131		0.990	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	430		99	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	780		490	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	29		25	ug/kg	EPA 8081A	EPA 3545

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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
Received: 04/20/17

Attn: Cari Ferrell

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP7-1 (17-04-1498-37)						
Arsenic	5.55		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	188		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.462		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	4.17		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	28.6		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.07		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	34.0		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	16.4		0.476	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.987		0.238	mg/kg	EPA 6010B	EPA 3050B
Nickel	28.6		0.238	mg/kg	EPA 6010B	EPA 3050B
Silver	0.292		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.0		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	120		0.952	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0951		0.0794	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	34		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	7900		2500	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	52		25	ug/kg	EPA 8081A	EPA 3545
Endrin Ketone	7.9		5.0	ug/kg	EPA 8081A	EPA 3545
DP7-3 (17-04-1498-38)						
Arsenic	5.00		0.781	mg/kg	EPA 6010B	EPA 3050B
Barium	141		0.521	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.374		0.260	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.695		0.521	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.4		0.260	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.60		0.260	mg/kg	EPA 6010B	EPA 3050B
Copper	20.3		0.521	mg/kg	EPA 6010B	EPA 3050B
Lead	7.38		0.521	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.433		0.260	mg/kg	EPA 6010B	EPA 3050B
Nickel	15.8		0.260	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.4		0.260	mg/kg	EPA 6010B	EPA 3050B
Zinc	55.7		1.04	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	19		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	19		5.0	ug/kg	EPA 8081A	EPA 3545


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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP7-5 (17-04-1498-39)						
Arsenic	5.49		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	341		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.515		0.253	mg/kg	EPA 6010B	EPA 3050B
Cadmium	2.28		0.505	mg/kg	EPA 6010B	EPA 3050B
Chromium	29.8		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.50		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	29.6		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	7.67		0.505	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.525		0.253	mg/kg	EPA 6010B	EPA 3050B
Nickel	34.0		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	48.4		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	74.0		1.01	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDE	36		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	17		5.0	ug/kg	EPA 8081A	EPA 3545
DP8-1 (17-04-1498-43)						
Arsenic	16.8		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	624		0.518	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.944		0.259	mg/kg	EPA 6010B	EPA 3050B
Cadmium	17.3		0.518	mg/kg	EPA 6010B	EPA 3050B
Chromium	266		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.1		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	226		0.518	mg/kg	EPA 6010B	EPA 3050B
Lead	328		0.518	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.33		0.259	mg/kg	EPA 6010B	EPA 3050B
Nickel	57.9		0.259	mg/kg	EPA 6010B	EPA 3050B
Silver	5.74		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	37.3		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	687		1.04	mg/kg	EPA 6010B	EPA 3050B
Chromium	15.3		0.100	mg/L	EPA 6010B	T22.11.5. All
Lead	14.1		0.100	mg/L	EPA 6010B	T22.11.5. All
Mercury	1.06		0.0833	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	82		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	5200		2500	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	25		5.0	ug/kg	EPA 8081A	EPA 3545

\* MDL is shown



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## Detections Summary

Client: Tetra Tech, Inc.  
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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP8-3 (17-04-1498-44)						
Arsenic	6.41		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	179		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.479		0.253	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.792		0.505	mg/kg	EPA 6010B	EPA 3050B
Chromium	22.8		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.2		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	22.7		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	7.66		0.505	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.821		0.253	mg/kg	EPA 6010B	EPA 3050B
Nickel	21.5		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	41.1		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	59.8		1.01	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDE	100		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	15		5.0	ug/kg	EPA 8081A	EPA 3545
DP8-5 (17-04-1498-45)						
Arsenic	7.91		0.765	mg/kg	EPA 6010B	EPA 3050B
Barium	319		0.510	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.547		0.255	mg/kg	EPA 6010B	EPA 3050B
Cadmium	2.88		0.510	mg/kg	EPA 6010B	EPA 3050B
Chromium	52.3		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.91		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	50.4		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	60.7		0.510	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.455		0.255	mg/kg	EPA 6010B	EPA 3050B
Nickel	31.4		0.255	mg/kg	EPA 6010B	EPA 3050B
Silver	0.565		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	46.6		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	210		1.02	mg/kg	EPA 6010B	EPA 3050B
Chromium	0.903		0.100	mg/L	EPA 6010B	T22.11.5. All
Lead	1.24		0.100	mg/L	EPA 6010B	T22.11.5. All
Mercury	0.410		0.0877	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	10		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	22		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	5.6		5.0	ug/kg	EPA 8081A	EPA 3545

\* MDL is shown



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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP8-8 (17-04-1498-46)						
Arsenic	3.58		0.725	mg/kg	EPA 6010B	EPA 3050B
Barium	192		0.483	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.583		0.242	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.02		0.483	mg/kg	EPA 6010B	EPA 3050B
Chromium	27.2		0.242	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.3		0.242	mg/kg	EPA 6010B	EPA 3050B
Copper	30.3		0.483	mg/kg	EPA 6010B	EPA 3050B
Lead	30.4		0.483	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.659		0.242	mg/kg	EPA 6010B	EPA 3050B
Nickel	19.4		0.242	mg/kg	EPA 6010B	EPA 3050B
Vanadium	46.7		0.242	mg/kg	EPA 6010B	EPA 3050B
Zinc	96.1		0.966	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	77		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	110		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	5.5		5.0	ug/kg	EPA 8081A	EPA 3545
DP9-1 (17-04-1498-49)						
Arsenic	6.70		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	173		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.417		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.968		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	25.8		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.71		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	28.4		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	12.9		0.476	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.599		0.238	mg/kg	EPA 6010B	EPA 3050B
Nickel	19.4		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	37.3		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	71.5		0.952	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0874		0.0794	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	8.6		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	360		50	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	170		50	ug/kg	EPA 8081A	EPA 3545

\* MDL is shown



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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP9-3 (17-04-1498-50)						
Arsenic	5.55		0.769	mg/kg	EPA 6010B	EPA 3050B
Barium	202		0.513	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.501		0.256	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.834		0.513	mg/kg	EPA 6010B	EPA 3050B
Chromium	26.0		0.256	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.62		0.256	mg/kg	EPA 6010B	EPA 3050B
Copper	25.8		0.513	mg/kg	EPA 6010B	EPA 3050B
Lead	14.5		0.513	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.373		0.256	mg/kg	EPA 6010B	EPA 3050B
Nickel	21.0		0.256	mg/kg	EPA 6010B	EPA 3050B
Vanadium	39.7		0.256	mg/kg	EPA 6010B	EPA 3050B
Zinc	66.3		1.03	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDE	19		5.0	ug/kg	EPA 8081A	EPA 3545
DP9-5 (17-04-1498-51)						
Arsenic	5.99		0.721	mg/kg	EPA 6010B	EPA 3050B
Barium	213		0.481	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.521		0.240	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.12		0.481	mg/kg	EPA 6010B	EPA 3050B
Chromium	29.0		0.240	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.65		0.240	mg/kg	EPA 6010B	EPA 3050B
Copper	29.3		0.481	mg/kg	EPA 6010B	EPA 3050B
Lead	17.0		0.481	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.728		0.240	mg/kg	EPA 6010B	EPA 3050B
Nickel	21.5		0.240	mg/kg	EPA 6010B	EPA 3050B
Vanadium	43.5		0.240	mg/kg	EPA 6010B	EPA 3050B
Zinc	79.7		0.962	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	7.2		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	34		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	13		5.0	ug/kg	EPA 8081A	EPA 3545

\* MDL is shown



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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP9-8 (17-04-1498-52)						
Arsenic	2.32		0.773	mg/kg	EPA 6010B	EPA 3050B
Barium	192		0.515	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.479		0.258	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.10		0.515	mg/kg	EPA 6010B	EPA 3050B
Chromium	42.8		0.258	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.10		0.258	mg/kg	EPA 6010B	EPA 3050B
Copper	37.1		0.515	mg/kg	EPA 6010B	EPA 3050B
Lead	39.1		0.515	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.272		0.258	mg/kg	EPA 6010B	EPA 3050B
Nickel	18.2		0.258	mg/kg	EPA 6010B	EPA 3050B
Vanadium	35.1		0.258	mg/kg	EPA 6010B	EPA 3050B
Zinc	123		1.03	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.111		0.0862	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	400		250	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	790		250	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	55		25	ug/kg	EPA 8081A	EPA 3545
DP10-1 (17-04-1498-55)						
Arsenic	4.25		0.746	mg/kg	EPA 6010B	EPA 3050B
Barium	221		0.498	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.382		0.249	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.45		0.498	mg/kg	EPA 6010B	EPA 3050B
Chromium	23.3		0.249	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.91		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	24.9		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	9.46		0.498	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.663		0.249	mg/kg	EPA 6010B	EPA 3050B
Nickel	20.6		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.5		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	60.6		0.995	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDE	68		25	ug/kg	EPA 8081A	EPA 3545


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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
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Work Order: 17-04-1498  
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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP10-3 (17-04-1498-56)						
Arsenic	4.48		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	146		0.508	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.350		0.254	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.668		0.508	mg/kg	EPA 6010B	EPA 3050B
Chromium	17.1		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.83		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	17.4		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	6.82		0.508	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.596		0.254	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.6		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	29.8		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	49.8		1.02	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	8.5		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	130		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	60		25	ug/kg	EPA 8081A	EPA 3545
DP10-5 (17-04-1498-57)						
Arsenic	5.16		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	187		0.500	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.508		0.250	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.701		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	23.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.1		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	24.1		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	11.5		0.500	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.75		0.250	mg/kg	EPA 6010B	EPA 3050B
Nickel	19.2		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	42.3		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	61.3		1.00	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	19		4.9	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	43		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	24		4.9	ug/kg	EPA 8081A	EPA 3545

\* MDL is shown





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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
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Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP10-8 (17-04-1498-58)						
Barium	210		0.483	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.486		0.242	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.1		0.242	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.1		0.242	mg/kg	EPA 6010B	EPA 3050B
Copper	17.9		0.483	mg/kg	EPA 6010B	EPA 3050B
Lead	6.43		0.483	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.5		0.242	mg/kg	EPA 6010B	EPA 3050B
Vanadium	44.7		0.242	mg/kg	EPA 6010B	EPA 3050B
Zinc	60.2		0.966	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	5.3		5.0	ug/kg	EPA 8081A	EPA 3545
DP11-1 (17-04-1498-61)						
Arsenic	8.54		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	263		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.523		0.253	mg/kg	EPA 6010B	EPA 3050B
Cadmium	3.99		0.505	mg/kg	EPA 6010B	EPA 3050B
Chromium	64.4		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	7.93		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	70.9		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	84.5		0.505	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.580		0.253	mg/kg	EPA 6010B	EPA 3050B
Nickel	26.3		0.253	mg/kg	EPA 6010B	EPA 3050B
Silver	1.32		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	33.1		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	276		1.01	mg/kg	EPA 6010B	EPA 3050B
Chromium	1.08		0.100	mg/L	EPA 6010B	T22.11.5. All
Lead	2.16		0.100	mg/L	EPA 6010B	T22.11.5. All
Mercury	0.377		0.0794	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	23		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	3100		500	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	62		25	ug/kg	EPA 8081A	EPA 3545


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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
Received: 04/20/17

Attn: Cari Ferrell

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP11-3 (17-04-1498-62)						
Arsenic	5.07		0.789	mg/kg	EPA 6010B	EPA 3050B
Barium	225		0.526	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.472		0.263	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.16		0.526	mg/kg	EPA 6010B	EPA 3050B
Chromium	24.2		0.263	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.6		0.263	mg/kg	EPA 6010B	EPA 3050B
Copper	27.4		0.526	mg/kg	EPA 6010B	EPA 3050B
Lead	11.9		0.526	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.647		0.263	mg/kg	EPA 6010B	EPA 3050B
Nickel	22.8		0.263	mg/kg	EPA 6010B	EPA 3050B
Vanadium	39.1		0.263	mg/kg	EPA 6010B	EPA 3050B
Zinc	61.0		1.05	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0879		0.0820	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	8.5		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	9.7		5.0	ug/kg	EPA 8081A	EPA 3545
DP11-5 (17-04-1498-63)						
Arsenic	2.25		0.765	mg/kg	EPA 6010B	EPA 3050B
Barium	189		0.510	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.536		0.255	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.635		0.510	mg/kg	EPA 6010B	EPA 3050B
Chromium	11.9		0.255	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.87		0.255	mg/kg	EPA 6010B	EPA 3050B
Copper	19.3		0.510	mg/kg	EPA 6010B	EPA 3050B
Lead	5.33		0.510	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.302		0.255	mg/kg	EPA 6010B	EPA 3050B
Nickel	13.6		0.255	mg/kg	EPA 6010B	EPA 3050B
Vanadium	21.3		0.255	mg/kg	EPA 6010B	EPA 3050B
Zinc	37.9		1.02	mg/kg	EPA 6010B	EPA 3050B


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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
Received: 04/20/17

Attn: Cari Ferrell

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP12-1 (17-04-1498-67)						
Arsenic	8.36		0.728	mg/kg	EPA 6010B	EPA 3050B
Barium	323		0.485	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.602		0.243	mg/kg	EPA 6010B	EPA 3050B
Cadmium	6.15		0.485	mg/kg	EPA 6010B	EPA 3050B
Chromium	107		0.243	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.86		0.243	mg/kg	EPA 6010B	EPA 3050B
Copper	101		0.485	mg/kg	EPA 6010B	EPA 3050B
Lead	127		0.485	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.894		0.243	mg/kg	EPA 6010B	EPA 3050B
Nickel	32.9		0.243	mg/kg	EPA 6010B	EPA 3050B
Silver	2.18		0.243	mg/kg	EPA 6010B	EPA 3050B
Vanadium	36.6		0.243	mg/kg	EPA 6010B	EPA 3050B
Zinc	328		0.971	mg/kg	EPA 6010B	EPA 3050B
Chromium	5.54		0.100	mg/L	EPA 6010B	T22.11.5. All
Lead	6.14		0.100	mg/L	EPA 6010B	T22.11.5. All
Mercury	0.616		0.0806	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	90		50	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	6800		2500	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	260		50	ug/kg	EPA 8081A	EPA 3545
DP12-3 (17-04-1498-68)						
Arsenic	5.49		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	169		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.474		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.871		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	24.4		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.97		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	23.3		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	11.9		0.476	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.268		0.238	mg/kg	EPA 6010B	EPA 3050B
Nickel	18.5		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.0		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	63.8		0.952	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.0888		0.0794	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	8.9		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	37		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	6.9		5.0	ug/kg	EPA 8081A	EPA 3545

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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
Received: 04/20/17

Attn: Cari Ferrell

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP12-5 (17-04-1498-69)						
Arsenic	6.38		0.777	mg/kg	EPA 6010B	EPA 3050B
Barium	146		0.518	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.457		0.259	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.628		0.518	mg/kg	EPA 6010B	EPA 3050B
Chromium	22.8		0.259	mg/kg	EPA 6010B	EPA 3050B
Cobalt	9.74		0.259	mg/kg	EPA 6010B	EPA 3050B
Copper	23.3		0.518	mg/kg	EPA 6010B	EPA 3050B
Lead	19.0		0.518	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.388		0.259	mg/kg	EPA 6010B	EPA 3050B
Nickel	17.7		0.259	mg/kg	EPA 6010B	EPA 3050B
Vanadium	40.3		0.259	mg/kg	EPA 6010B	EPA 3050B
Zinc	62.7		1.04	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	7.3		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	16		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	6.2		5.0	ug/kg	EPA 8081A	EPA 3545
DP12-8 (17-04-1498-70)						
Arsenic	1.08		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	101		0.508	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.432		0.254	mg/kg	EPA 6010B	EPA 3050B
Chromium	18.1		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	10.9		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	19.6		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	5.10		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	14.0		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	36.1		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	45.9		1.02	mg/kg	EPA 6010B	EPA 3050B


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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
Received: 04/20/17

Attn: Cari Ferrell

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP1-8-00 (17-04-1498-75)						
Arsenic	5.63		0.718	mg/kg	EPA 6010B	EPA 3050B
Barium	357		0.478	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.564		0.239	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.27		0.478	mg/kg	EPA 6010B	EPA 3050B
Chromium	35.8		0.239	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.5		0.239	mg/kg	EPA 6010B	EPA 3050B
Copper	35.9		0.478	mg/kg	EPA 6010B	EPA 3050B
Lead	16.2		0.478	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.858		0.239	mg/kg	EPA 6010B	EPA 3050B
Nickel	32.4		0.239	mg/kg	EPA 6010B	EPA 3050B
Vanadium	52.3		0.239	mg/kg	EPA 6010B	EPA 3050B
Zinc	79.3		0.957	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	80		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	99		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	6.4		5.0	ug/kg	EPA 8081A	EPA 3545
DP1-10-00 (17-04-1498-76)						
Arsenic	16.1		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	383		0.505	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.542		0.253	mg/kg	EPA 6010B	EPA 3050B
Cadmium	11.7		0.505	mg/kg	EPA 6010B	EPA 3050B
Chromium	276		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.0		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	306		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	195		0.505	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.54		0.253	mg/kg	EPA 6010B	EPA 3050B
Nickel	80.0		0.253	mg/kg	EPA 6010B	EPA 3050B
Silver	2.99		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	42.7		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	668		1.01	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.353		0.100	mg/L	EPA 6010B	T22.11.5. All
Chromium	6.70		0.100	mg/L	EPA 6010B	T22.11.5. All
Copper	1.15		0.100	mg/L	EPA 6010B	T22.11.5. All
Lead	7.30		0.100	mg/L	EPA 6010B	T22.11.5. All
Mercury	0.961		0.0847	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	11000		2500	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	12000		2500	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	1100		500	ug/kg	EPA 8081A	EPA 3545

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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
Received: 04/20/17

Attn: Cari Ferrell

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP11-3-00 (17-04-1498-77)						
Arsenic	4.41		0.739	mg/kg	EPA 6010B	EPA 3050B
Barium	146		0.493	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.416		0.246	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.12		0.493	mg/kg	EPA 6010B	EPA 3050B
Chromium	29.4		0.246	mg/kg	EPA 6010B	EPA 3050B
Cobalt	8.92		0.246	mg/kg	EPA 6010B	EPA 3050B
Copper	29.5		0.493	mg/kg	EPA 6010B	EPA 3050B
Lead	30.3		0.493	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.708		0.246	mg/kg	EPA 6010B	EPA 3050B
Nickel	16.4		0.246	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.1		0.246	mg/kg	EPA 6010B	EPA 3050B
Zinc	91.8		0.985	mg/kg	EPA 6010B	EPA 3050B
4,4'-DDD	14		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	76		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	8.3		5.0	ug/kg	EPA 8081A	EPA 3545
DP8-8-00 (17-04-1498-78)						
Arsenic	3.50		0.728	mg/kg	EPA 6010B	EPA 3050B
Barium	215		0.485	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.532		0.243	mg/kg	EPA 6010B	EPA 3050B
Cadmium	1.08		0.485	mg/kg	EPA 6010B	EPA 3050B
Chromium	29.0		0.243	mg/kg	EPA 6010B	EPA 3050B
Cobalt	11.4		0.243	mg/kg	EPA 6010B	EPA 3050B
Copper	29.8		0.485	mg/kg	EPA 6010B	EPA 3050B
Lead	40.6		0.485	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.628		0.243	mg/kg	EPA 6010B	EPA 3050B
Nickel	21.4		0.243	mg/kg	EPA 6010B	EPA 3050B
Vanadium	47.8		0.243	mg/kg	EPA 6010B	EPA 3050B
Zinc	111		0.971	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.129		0.0862	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	27		5.0	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	110		25	ug/kg	EPA 8081A	EPA 3545

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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
Received: 04/20/17

Attn: Cari Ferrell

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DP2-10-00 (17-04-1498-79)						
Antimony	1.79		0.732	mg/kg	EPA 6010B	EPA 3050B
Arsenic	30.5		0.732	mg/kg	EPA 6010B	EPA 3050B
Barium	353		0.488	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.617		0.244	mg/kg	EPA 6010B	EPA 3050B
Cadmium	13.0		0.488	mg/kg	EPA 6010B	EPA 3050B
Chromium	304		0.244	mg/kg	EPA 6010B	EPA 3050B
Cobalt	12.6		0.244	mg/kg	EPA 6010B	EPA 3050B
Copper	360		0.488	mg/kg	EPA 6010B	EPA 3050B
Lead	186		0.488	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	1.28		0.244	mg/kg	EPA 6010B	EPA 3050B
Nickel	89.3		0.244	mg/kg	EPA 6010B	EPA 3050B
Silver	3.51		0.244	mg/kg	EPA 6010B	EPA 3050B
Vanadium	38.6		0.244	mg/kg	EPA 6010B	EPA 3050B
Zinc	767		0.976	mg/kg	EPA 6010B	EPA 3050B
Cadmium	0.143		0.100	mg/L	EPA 6010B	T22.11.5. All
Chromium	0.870		0.100	mg/L	EPA 6010B	T22.11.5. All
Copper	1.72		0.100	mg/L	EPA 6010B	T22.11.5. All
Lead	1.84		0.100	mg/L	EPA 6010B	T22.11.5. All
Mercury	1.14		0.0847	mg/kg	EPA 7471A	EPA 7471A Total
4,4'-DDD	26000		5000	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	19000		5000	ug/kg	EPA 8081A	EPA 3545
4,4'-DDT	2900		500	ug/kg	EPA 8081A	EPA 3545


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## Detections Summary

Client: Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Work Order: 17-04-1498  
Project Name: Carriage Crest Park (CCP)  
Received: 04/20/17

Attn: Cari Ferrell

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### Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
DRUM1 (17-04-1498-80)						
Arsenic	7.74		0.714	mg/kg	EPA 6010B	EPA 3050B
Barium	252		0.476	mg/kg	EPA 6010B	EPA 3050B
Beryllium	0.535		0.238	mg/kg	EPA 6010B	EPA 3050B
Cadmium	3.12		0.476	mg/kg	EPA 6010B	EPA 3050B
Chromium	51.4		0.238	mg/kg	EPA 6010B	EPA 3050B
Cobalt	6.38		0.238	mg/kg	EPA 6010B	EPA 3050B
Copper	60.8		0.476	mg/kg	EPA 6010B	EPA 3050B
Lead	22.9		0.476	mg/kg	EPA 6010B	EPA 3050B
Molybdenum	0.582		0.238	mg/kg	EPA 6010B	EPA 3050B
Nickel	30.8		0.238	mg/kg	EPA 6010B	EPA 3050B
Silver	0.382		0.238	mg/kg	EPA 6010B	EPA 3050B
Vanadium	31.5		0.238	mg/kg	EPA 6010B	EPA 3050B
Zinc	136		0.952	mg/kg	EPA 6010B	EPA 3050B
Chromium	0.226		0.100	mg/L	EPA 6010B	T22.11.5. All
TPH as Diesel	360	HD	25	mg/kg	EPA 8015B (M)	EPA 3550B
4,4'-DDD	45		25	ug/kg	EPA 8081A	EPA 3545
4,4'-DDE	150		25	ug/kg	EPA 8081A	EPA 3545

Subcontracted analyses, if any, are not included in this summary.

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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3550B  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10	17-04-1498-5-A	04/19/17 09:23	Solid	GC 45	05/10/17	05/10/17 23:14	170510B04A

Comment(s): - Sample extracted outside recommended holding time.

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	390	5.0	1.00	HD,ET

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	115	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DRUM1	17-04-1498-80-A	04/19/17 15:15	Solid	GC 48	04/25/17	04/26/17 13:57	170425B07C

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	360	25	5.00	HD

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	106	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-422-3021	N/A	Solid	GC 48	04/25/17	04/25/17 16:23	170425B07C

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	108	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-422-3058	N/A	Solid	GC 45	05/10/17	05/10/17 14:32	170510B04A

Parameter	Result	RL	DF	Qualifiers
TPH as Diesel	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	94	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5030C  
Method: EPA 8015B (M)  
Units: ug/L

Project: Carriage Crest Park (CCP)

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>TB04192017</b>	<b>17-04-1498-73-B</b>	<b>04/19/17 07:00</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>05/02/17</b>	<b>05/03/17 09:39</b>	<b>170502L030</b>

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	60	38-134	

Method Blank	099-15-704-1721	N/A	Aqueous	GC 22	05/02/17	05/02/17 13:37	170502L030
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Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	61	38-134	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8015B (M)  
Units: mg/kg

Project: Carriage Crest Park (CCP)

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>DP1-10</b>	<b>17-04-1498-5-F</b>	<b>04/19/17 09:23</b>	<b>Solid</b>	<b>GC 56</b>	<b>04/19/17</b>	<b>05/03/17 15:38</b>	<b>170503L035</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.23		1.00	BU
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		70		60-126			
<b>DRUM1</b>	<b>17-04-1498-80-F</b>	<b>04/19/17 15:15</b>	<b>Solid</b>	<b>GC 57</b>	<b>04/19/17</b>	<b>04/26/17 21:46</b>	<b>170426L054</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.23		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		69		60-126			
<b>Method Blank</b>	<b>099-12-285-6342</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 57</b>	<b>04/26/17</b>	<b>04/26/17 12:09</b>	<b>170426L054</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.25		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		71		60-126			
<b>Method Blank</b>	<b>099-12-285-6347</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 56</b>	<b>05/03/17</b>	<b>05/03/17 14:35</b>	<b>170503L035</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
TPH as Gasoline		ND		0.25		1.00	
<u>Surrogate</u>		<u>Rec. (%)</u>		<u>Control Limits</u>		<u>Qualifiers</u>	
1,4-Bromofluorobenzene		66		60-126			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-1	17-04-1498-1-A	04/19/17 09:15	Solid	ICP 7300	04/26/17	04/27/17 13:05	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.789	1.05	
Arsenic	6.60	0.789	1.05	
Barium	263	0.526	1.05	
Beryllium	0.610	0.263	1.05	
Cadmium	5.75	0.526	1.05	
Chromium	90.2	0.263	1.05	
Cobalt	9.33	0.263	1.05	
Copper	88.9	0.526	1.05	
Lead	106	0.526	1.05	
Molybdenum	0.670	0.263	1.05	
Nickel	32.0	0.263	1.05	
Selenium	ND	0.789	1.05	
Silver	1.58	0.263	1.05	
Thallium	ND	0.789	1.05	
Vanadium	38.0	0.263	1.05	
Zinc	273	1.05	1.05	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-3	17-04-1498-2-A	04/19/17 09:17	Solid	ICP 7300	04/26/17	04/27/17 13:06	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	5.28	0.714	0.952	
Barium	445	0.476	0.952	
Beryllium	0.493	0.238	0.952	
Cadmium	2.28	0.476	0.952	
Chromium	38.0	0.238	0.952	
Cobalt	7.93	0.238	0.952	
Copper	33.8	0.476	0.952	
Lead	11.5	0.476	0.952	
Molybdenum	1.13	0.238	0.952	
Nickel	36.5	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	55.2	0.238	0.952	
Zinc	82.7	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-5	17-04-1498-3-A	04/19/17 09:19	Solid	ICP 7300	04/26/17	04/27/17 13:07	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.769	1.03	
Arsenic	5.59	0.769	1.03	
Barium	200	0.513	1.03	
Beryllium	0.437	0.256	1.03	
Cadmium	1.03	0.513	1.03	
Chromium	25.0	0.256	1.03	
Cobalt	8.18	0.256	1.03	
Copper	28.1	0.513	1.03	
Lead	15.7	0.513	1.03	
Molybdenum	0.300	0.256	1.03	
Nickel	19.1	0.256	1.03	
Selenium	ND	0.769	1.03	
Silver	ND	0.256	1.03	
Thallium	ND	0.769	1.03	
Vanadium	36.1	0.256	1.03	
Zinc	81.5	1.03	1.03	


  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-8	17-04-1498-4-A	04/19/17 09:21	Solid	ICP 7300	05/04/17	05/04/17 15:47	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	5.33	0.765	1.02	
Barium	185	0.510	1.02	
Beryllium	0.587	0.255	1.02	
Cadmium	0.647	0.510	1.02	
Chromium	28.0	0.255	1.02	
Cobalt	12.8	0.255	1.02	
Copper	33.0	0.510	1.02	
Lead	28.4	0.510	1.02	
Molybdenum	ND	0.255	1.02	
Nickel	20.8	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	0.865	0.765	1.02	
Vanadium	50.3	0.255	1.02	
Zinc	91.5	1.02	1.02	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10	17-04-1498-5-A	04/19/17 09:23	Solid	ICP 7300	05/04/17	05/04/17 15:49	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.777	1.04	
Arsenic	18.3	0.777	1.04	
Barium	475	0.518	1.04	
Beryllium	0.660	0.259	1.04	
Cadmium	17.3	0.518	1.04	
Chromium	394	0.259	1.04	
Cobalt	14.9	0.259	1.04	
Copper	448	0.518	1.04	
Lead	405	0.518	1.04	
Molybdenum	2.39	0.259	1.04	
Nickel	127	0.259	1.04	
Selenium	ND	0.777	1.04	
Silver	2.54	0.259	1.04	
Thallium	ND	0.777	1.04	
Vanadium	50.9	0.259	1.04	
Zinc	1260	1.04	1.04	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-15	17-04-1498-6-A	04/19/17 09:25	Solid	ICP 7300	05/12/17	05/15/17 13:04	170512L08

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	ND	0.750	1.00	
Barium	175	0.500	1.00	
Beryllium	0.676	0.250	1.00	
Cadmium	0.886	0.500	1.00	
Chromium	22.9	0.250	1.00	
Cobalt	15.8	0.250	1.00	
Copper	21.3	0.500	1.00	
Lead	7.23	0.500	1.00	
Molybdenum	ND	0.250	1.00	
Nickel	17.5	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	43.1	0.250	1.00	
Zinc	52.3	1.00	1.00	


  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-1	17-04-1498-7-A	04/19/17 10:00	Solid	ICP 7300	04/26/17	04/27/17 13:09	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	9.29	0.739	0.985	
Barium	821	0.493	0.985	
Beryllium	0.621	0.246	0.985	
Cadmium	2.80	0.493	0.985	
Chromium	44.8	0.246	0.985	
Cobalt	13.1	0.246	0.985	
Copper	38.1	0.493	0.985	
Lead	6.53	0.493	0.985	
Molybdenum	4.11	0.246	0.985	
Nickel	51.9	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	80.6	0.246	0.985	
Zinc	69.9	0.985	0.985	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 3050B
	Method:	EPA 6010B
	Units:	mg/kg

Project: Carriage Crest Park (CCP) Page 8 of 63

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-3	17-04-1498-8-A	04/19/17 10:02	Solid	ICP 7300	04/26/17	04/27/17 13:10	170426L11
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	
Antimony		ND		0.735	0.980		
Arsenic		5.64		0.735	0.980		
Barium		193		0.490	0.980		
Beryllium		0.407		0.245	0.980		
Cadmium		1.00		0.490	0.980		
Chromium		24.4		0.245	0.980		
Cobalt		8.14		0.245	0.980		
Copper		23.0		0.490	0.980		
Lead		11.0		0.490	0.980		
Molybdenum		1.00		0.245	0.980		
Nickel		19.7		0.245	0.980		
Selenium		ND		0.735	0.980		
Silver		ND		0.245	0.980		
Thallium		ND		0.735	0.980		
Vanadium		35.8		0.245	0.980		
Zinc		77.9		0.980	0.980		

  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-5	17-04-1498-9-A	04/19/17 10:04	Solid	ICP 7300	04/26/17	04/27/17 13:11	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	5.95	0.735	0.980	
Barium	226	0.490	0.980	
Beryllium	0.491	0.245	0.980	
Cadmium	1.14	0.490	0.980	
Chromium	26.5	0.245	0.980	
Cobalt	9.43	0.245	0.980	
Copper	27.0	0.490	0.980	
Lead	12.4	0.490	0.980	
Molybdenum	0.365	0.245	0.980	
Nickel	23.1	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	42.4	0.245	0.980	
Zinc	87.5	0.980	0.980	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-8	17-04-1498-10-A	04/19/17 10:06	Solid	ICP 7300	05/04/17	05/04/17 15:50	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	9.58	0.714	0.952	
Barium	195	0.476	0.952	
Beryllium	0.618	0.238	0.952	
Cadmium	0.529	0.476	0.952	
Chromium	29.0	0.238	0.952	
Cobalt	14.5	0.238	0.952	
Copper	33.4	0.476	0.952	
Lead	24.1	0.476	0.952	
Molybdenum	ND	0.238	0.952	
Nickel	24.6	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	51.9	0.238	0.952	
Zinc	78.6	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-10	17-04-1498-11-A	04/19/17 10:08	Solid	ICP 7300	05/04/17	05/08/17 15:21	170508L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	9.77	0.735	0.980	
Barium	203	0.490	0.980	
Beryllium	0.560	0.245	0.980	
Cadmium	4.28	0.490	0.980	
Chromium	120	0.245	0.980	
Cobalt	10.2	0.245	0.980	
Copper	118	0.490	0.980	
Lead	70.0	0.490	0.980	
Molybdenum	0.421	0.245	0.980	
Nickel	39.7	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	1.25	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	35.6	0.245	0.980	
Zinc	309	0.980	0.980	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-15	17-04-1498-12-A	04/19/17 10:10	Solid	ICP 7300	05/04/17	05/04/17 15:50	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.789	1.05	
Arsenic	4.29	0.789	1.05	
Barium	276	0.526	1.05	
Beryllium	0.624	0.263	1.05	
Cadmium	1.72	0.526	1.05	
Chromium	35.1	0.263	1.05	
Cobalt	11.7	0.263	1.05	
Copper	29.4	0.526	1.05	
Lead	7.05	0.526	1.05	
Molybdenum	4.72	0.263	1.05	
Nickel	35.8	0.263	1.05	
Selenium	ND	0.789	1.05	
Silver	ND	0.263	1.05	
Thallium	ND	0.789	1.05	
Vanadium	52.4	0.263	1.05	
Zinc	69.2	1.05	1.05	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP3-1	17-04-1498-13-A	04/19/17 12:55	Solid	ICP 7300	04/26/17	04/27/17 13:12	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.789	1.05	
Arsenic	4.98	0.789	1.05	
Barium	120	0.526	1.05	
Beryllium	0.314	0.263	1.05	
Cadmium	0.594	0.526	1.05	
Chromium	18.1	0.263	1.05	
Cobalt	7.29	0.263	1.05	
Copper	18.2	0.526	1.05	
Lead	6.62	0.526	1.05	
Molybdenum	0.659	0.263	1.05	
Nickel	13.5	0.263	1.05	
Selenium	ND	0.789	1.05	
Silver	ND	0.263	1.05	
Thallium	ND	0.789	1.05	
Vanadium	30.9	0.263	1.05	
Zinc	52.2	1.05	1.05	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP3-3	17-04-1498-14-A	04/19/17 12:57	Solid	ICP 7300	04/26/17	04/27/17 13:13	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.789	1.05	
Arsenic	4.34	0.789	1.05	
Barium	134	0.526	1.05	
Beryllium	0.361	0.263	1.05	
Cadmium	ND	0.526	1.05	
Chromium	18.2	0.263	1.05	
Cobalt	7.32	0.263	1.05	
Copper	18.5	0.526	1.05	
Lead	6.66	0.526	1.05	
Molybdenum	0.427	0.263	1.05	
Nickel	14.4	0.263	1.05	
Selenium	ND	0.789	1.05	
Silver	ND	0.263	1.05	
Thallium	ND	0.789	1.05	
Vanadium	30.9	0.263	1.05	
Zinc	56.7	1.05	1.05	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP3-5	17-04-1498-15-A	04/19/17 12:59	Solid	ICP 7300	04/26/17	04/27/17 13:14	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	6.51	0.714	0.952	
Barium	163	0.476	0.952	
Beryllium	0.505	0.238	0.952	
Cadmium	1.05	0.476	0.952	
Chromium	23.1	0.238	0.952	
Cobalt	10.8	0.238	0.952	
Copper	24.4	0.476	0.952	
Lead	10.2	0.476	0.952	
Molybdenum	0.636	0.238	0.952	
Nickel	20.7	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	37.9	0.238	0.952	
Zinc	72.9	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP3-8	17-04-1498-16-A	04/19/17 13:01	Solid	ICP 7300	05/04/17	05/04/17 15:51	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.781	1.04	
Arsenic	6.29	0.781	1.04	
Barium	123	0.521	1.04	
Beryllium	0.521	0.260	1.04	
Cadmium	ND	0.521	1.04	
Chromium	25.3	0.260	1.04	
Cobalt	9.64	0.260	1.04	
Copper	30.6	0.521	1.04	
Lead	12.8	0.521	1.04	
Molybdenum	0.393	0.260	1.04	
Nickel	18.8	0.260	1.04	
Selenium	ND	0.781	1.04	
Silver	ND	0.260	1.04	
Thallium	ND	0.781	1.04	
Vanadium	45.6	0.260	1.04	
Zinc	73.8	1.04	1.04	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP3-10	17-04-1498-17-A	04/19/17 13:03	Solid	ICP 7300	05/04/17	05/04/17 15:52	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	2.68	0.765	1.02	
Barium	264	0.510	1.02	
Beryllium	0.735	0.255	1.02	
Cadmium	1.24	0.510	1.02	
Chromium	34.1	0.255	1.02	
Cobalt	16.4	0.255	1.02	
Copper	40.6	0.510	1.02	
Lead	14.5	0.510	1.02	
Molybdenum	ND	0.255	1.02	
Nickel	25.2	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	57.2	0.255	1.02	
Zinc	95.2	1.02	1.02	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-1	17-04-1498-19-A	04/19/17 09:01	Solid	ICP 7300	04/26/17	04/27/17 13:14	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	13.5	0.758	1.01	
Barium	594	0.505	1.01	
Beryllium	0.949	0.253	1.01	
Cadmium	15.2	0.505	1.01	
Chromium	200	0.253	1.01	
Cobalt	11.8	0.253	1.01	
Copper	198	0.505	1.01	
Lead	218	0.505	1.01	
Molybdenum	1.33	0.253	1.01	
Nickel	59.7	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	4.68	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	50.8	0.253	1.01	
Zinc	572	1.01	1.01	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-3	17-04-1498-20-A	04/19/17 09:03	Solid	ICP 7300	04/26/17	04/27/17 13:15	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	6.87	0.714	0.952	
Barium	148	0.476	0.952	
Beryllium	0.451	0.238	0.952	
Cadmium	0.649	0.476	0.952	
Chromium	21.5	0.238	0.952	
Cobalt	9.94	0.238	0.952	
Copper	20.5	0.476	0.952	
Lead	11.1	0.476	0.952	
Molybdenum	1.11	0.238	0.952	
Nickel	18.5	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	36.4	0.238	0.952	
Zinc	68.7	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-5	17-04-1498-21-A	04/19/17 09:05	Solid	ICP 7300	04/26/17	04/27/17 13:16	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.750	1.00	
Arsenic	6.68	0.750	1.00	
Barium	290	0.500	1.00	
Beryllium	0.489	0.250	1.00	
Cadmium	1.56	0.500	1.00	
Chromium	31.0	0.250	1.00	
Cobalt	10.3	0.250	1.00	
Copper	32.4	0.500	1.00	
Lead	16.4	0.500	1.00	
Molybdenum	0.691	0.250	1.00	
Nickel	25.9	0.250	1.00	
Selenium	ND	0.750	1.00	
Silver	ND	0.250	1.00	
Thallium	ND	0.750	1.00	
Vanadium	45.5	0.250	1.00	
Zinc	89.9	1.00	1.00	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-8	17-04-1498-22-A	04/19/17 09:07	Solid	ICP 7300	05/04/17	05/04/17 15:54	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.785	1.05	
Arsenic	6.74	0.785	1.05	
Barium	233	0.524	1.05	
Beryllium	0.676	0.262	1.05	
Cadmium	1.57	0.524	1.05	
Chromium	45.8	0.262	1.05	
Cobalt	14.4	0.262	1.05	
Copper	48.5	0.524	1.05	
Lead	34.1	0.524	1.05	
Molybdenum	0.419	0.262	1.05	
Nickel	26.9	0.262	1.05	
Selenium	ND	0.785	1.05	
Silver	ND	0.262	1.05	
Thallium	ND	0.785	1.05	
Vanadium	62.0	0.262	1.05	
Zinc	155	1.05	1.05	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





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## Analytical Report

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 3050B
	Method:	EPA 6010B
	Units:	mg/kg

Project: Carriage Crest Park (CCP) Page 22 of 63

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-1	17-04-1498-25-A	04/19/17 10:45	Solid	ICP 7300	04/26/17	04/27/17 13:17	170426L11
<u>Parameter</u>		<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>	
Antimony		ND		0.714	0.952		
Arsenic		7.66		0.714	0.952		
Barium		230		0.476	0.952		
Beryllium		0.496		0.238	0.952		
Cadmium		3.10		0.476	0.952		
Chromium		56.2		0.238	0.952		
Cobalt		8.47		0.238	0.952		
Copper		59.5		0.476	0.952		
Lead		52.9		0.476	0.952		
Molybdenum		0.726		0.238	0.952		
Nickel		27.4		0.238	0.952		
Selenium		ND		0.714	0.952		
Silver		0.720		0.238	0.952		
Thallium		ND		0.714	0.952		
Vanadium		38.5		0.238	0.952		
Zinc		141		0.952	0.952		


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-3	17-04-1498-26-A	04/19/17 10:47	Solid	ICP 7300	04/26/17	04/27/17 13:20	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	4.72	0.714	0.952	
Barium	312	0.476	0.952	
Beryllium	0.557	0.238	0.952	
Cadmium	1.56	0.476	0.952	
Chromium	38.9	0.238	0.952	
Cobalt	8.03	0.238	0.952	
Copper	32.2	0.476	0.952	
Lead	9.76	0.476	0.952	
Molybdenum	0.997	0.238	0.952	
Nickel	39.2	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	51.6	0.238	0.952	
Zinc	82.3	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-5	17-04-1498-27-A	04/19/17 10:49	Solid	ICP 7300	04/26/17	04/27/17 13:21	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	7.11	0.714	0.952	
Barium	258	0.476	0.952	
Beryllium	0.627	0.238	0.952	
Cadmium	0.950	0.476	0.952	
Chromium	31.4	0.238	0.952	
Cobalt	12.6	0.238	0.952	
Copper	33.4	0.476	0.952	
Lead	15.6	0.476	0.952	
Molybdenum	0.303	0.238	0.952	
Nickel	26.0	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	50.6	0.238	0.952	
Zinc	104	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-8	17-04-1498-28-A	04/19/17 10:51	Solid	ICP 7300	05/04/17	05/04/17 15:55	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.718	0.957	
Arsenic	2.38	0.718	0.957	
Barium	162	0.478	0.957	
Beryllium	0.468	0.239	0.957	
Cadmium	0.546	0.478	0.957	
Chromium	21.3	0.239	0.957	
Cobalt	9.94	0.239	0.957	
Copper	23.9	0.478	0.957	
Lead	31.6	0.478	0.957	
Molybdenum	ND	0.239	0.957	
Nickel	16.4	0.239	0.957	
Selenium	ND	0.718	0.957	
Silver	ND	0.239	0.957	
Thallium	ND	0.718	0.957	
Vanadium	39.0	0.239	0.957	
Zinc	88.4	0.957	0.957	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-10	17-04-1498-29-A	04/19/17 10:53	Solid	ICP 7300	05/04/17	05/04/17 15:56	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	2.65	0.735	0.980	
Barium	120	0.490	0.980	
Beryllium	0.605	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	23.6	0.245	0.980	
Cobalt	11.6	0.245	0.980	
Copper	24.5	0.490	0.980	
Lead	7.71	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	15.7	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	48.3	0.245	0.980	
Zinc	72.7	0.980	0.980	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP6-1	17-04-1498-31-A	04/19/17 13:50	Solid	ICP 7300	04/26/17	04/27/17 13:21	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.781	1.04	
Arsenic	8.68	0.781	1.04	
Barium	217	0.521	1.04	
Beryllium	0.460	0.260	1.04	
Cadmium	4.57	0.521	1.04	
Chromium	42.7	0.260	1.04	
Cobalt	8.56	0.260	1.04	
Copper	67.4	0.521	1.04	
Lead	34.6	0.521	1.04	
Molybdenum	0.646	0.260	1.04	
Nickel	28.3	0.260	1.04	
Selenium	ND	0.781	1.04	
Silver	0.642	0.260	1.04	
Thallium	ND	0.781	1.04	
Vanadium	41.4	0.260	1.04	
Zinc	150	1.04	1.04	


  
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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP6-3	17-04-1498-32-A	04/19/17 13:52	Solid	ICP 7300	04/26/17	04/27/17 13:22	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	5.82	0.743	0.990	
Barium	226	0.495	0.990	
Beryllium	0.460	0.248	0.990	
Cadmium	1.15	0.495	0.990	
Chromium	28.5	0.248	0.990	
Cobalt	8.90	0.248	0.990	
Copper	25.5	0.495	0.990	
Lead	9.50	0.495	0.990	
Molybdenum	0.457	0.248	0.990	
Nickel	23.2	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	43.5	0.248	0.990	
Zinc	68.8	0.990	0.990	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP6-5	17-04-1498-33-A	04/19/17 13:54	Solid	ICP 7300	04/26/17	04/27/17 13:23	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	5.00	0.714	0.952	
Barium	268	0.476	0.952	
Beryllium	0.476	0.238	0.952	
Cadmium	1.53	0.476	0.952	
Chromium	25.4	0.238	0.952	
Cobalt	8.41	0.238	0.952	
Copper	24.2	0.476	0.952	
Lead	7.00	0.476	0.952	
Molybdenum	0.535	0.238	0.952	
Nickel	20.1	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	41.3	0.238	0.952	
Zinc	67.6	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP6-8	17-04-1498-34-A	04/19/17 13:58	Solid	ICP 7300	05/04/17	05/04/17 15:57	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.743	0.990	
Arsenic	3.32	0.743	0.990	
Barium	201	0.495	0.990	
Beryllium	0.499	0.248	0.990	
Cadmium	1.34	0.495	0.990	
Chromium	34.1	0.248	0.990	
Cobalt	10.4	0.248	0.990	
Copper	35.8	0.495	0.990	
Lead	45.1	0.495	0.990	
Molybdenum	0.438	0.248	0.990	
Nickel	18.8	0.248	0.990	
Selenium	ND	0.743	0.990	
Silver	ND	0.248	0.990	
Thallium	ND	0.743	0.990	
Vanadium	39.4	0.248	0.990	
Zinc	131	0.990	0.990	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP7-1	17-04-1498-37-A	04/19/17 08:18	Solid	ICP 7300	04/26/17	04/27/17 13:24	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	5.55	0.714	0.952	
Barium	188	0.476	0.952	
Beryllium	0.462	0.238	0.952	
Cadmium	4.17	0.476	0.952	
Chromium	28.6	0.238	0.952	
Cobalt	7.07	0.238	0.952	
Copper	34.0	0.476	0.952	
Lead	16.4	0.476	0.952	
Molybdenum	0.987	0.238	0.952	
Nickel	28.6	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	0.292	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	33.0	0.238	0.952	
Zinc	120	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP7-3	17-04-1498-38-A	04/19/17 08:20	Solid	ICP 7300	04/26/17	04/27/17 13:25	170426L11

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.781	1.04	
Arsenic	5.00	0.781	1.04	
Barium	141	0.521	1.04	
Beryllium	0.374	0.260	1.04	
Cadmium	0.695	0.521	1.04	
Chromium	18.4	0.260	1.04	
Cobalt	8.60	0.260	1.04	
Copper	20.3	0.521	1.04	
Lead	7.38	0.521	1.04	
Molybdenum	0.433	0.260	1.04	
Nickel	15.8	0.260	1.04	
Selenium	ND	0.781	1.04	
Silver	ND	0.260	1.04	
Thallium	ND	0.781	1.04	
Vanadium	31.4	0.260	1.04	
Zinc	55.7	1.04	1.04	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP7-5	17-04-1498-39-A	04/19/17 08:22	Solid	ICP 7300	04/26/17	04/27/17 13:26	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	5.49	0.758	1.01	
Barium	341	0.505	1.01	
Beryllium	0.515	0.253	1.01	
Cadmium	2.28	0.505	1.01	
Chromium	29.8	0.253	1.01	
Cobalt	8.50	0.253	1.01	
Copper	29.6	0.505	1.01	
Lead	7.67	0.505	1.01	
Molybdenum	0.525	0.253	1.01	
Nickel	34.0	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	48.4	0.253	1.01	
Zinc	74.0	1.01	1.01	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-1	17-04-1498-43-A	04/19/17 11:10	Solid	ICP 7300	04/26/17	04/27/17 13:26	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.777	1.04	
Arsenic	16.8	0.777	1.04	
Barium	624	0.518	1.04	
Beryllium	0.944	0.259	1.04	
Cadmium	17.3	0.518	1.04	
Chromium	266	0.259	1.04	
Cobalt	10.1	0.259	1.04	
Copper	226	0.518	1.04	
Lead	328	0.518	1.04	
Molybdenum	1.33	0.259	1.04	
Nickel	57.9	0.259	1.04	
Selenium	ND	0.777	1.04	
Silver	5.74	0.259	1.04	
Thallium	ND	0.777	1.04	
Vanadium	37.3	0.259	1.04	
Zinc	687	1.04	1.04	


  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-3	17-04-1498-44-A	04/19/17 11:12	Solid	ICP 7300	04/26/17	04/27/17 13:27	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	6.41	0.758	1.01	
Barium	179	0.505	1.01	
Beryllium	0.479	0.253	1.01	
Cadmium	0.792	0.505	1.01	
Chromium	22.8	0.253	1.01	
Cobalt	10.2	0.253	1.01	
Copper	22.7	0.505	1.01	
Lead	7.66	0.505	1.01	
Molybdenum	0.821	0.253	1.01	
Nickel	21.5	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	ND	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	41.1	0.253	1.01	
Zinc	59.8	1.01	1.01	


  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-5	17-04-1498-45-A	04/19/17 11:14	Solid	ICP 7300	04/26/17	04/27/17 13:30	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	7.91	0.765	1.02	
Barium	319	0.510	1.02	
Beryllium	0.547	0.255	1.02	
Cadmium	2.88	0.510	1.02	
Chromium	52.3	0.255	1.02	
Cobalt	9.91	0.255	1.02	
Copper	50.4	0.510	1.02	
Lead	60.7	0.510	1.02	
Molybdenum	0.455	0.255	1.02	
Nickel	31.4	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	0.565	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	46.6	0.255	1.02	
Zinc	210	1.02	1.02	


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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-8	17-04-1498-46-A	04/19/17 11:16	Solid	ICP 7300	05/04/17	05/04/17 15:57	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.725	0.966	
Arsenic	3.58	0.725	0.966	
Barium	192	0.483	0.966	
Beryllium	0.583	0.242	0.966	
Cadmium	1.02	0.483	0.966	
Chromium	27.2	0.242	0.966	
Cobalt	11.3	0.242	0.966	
Copper	30.3	0.483	0.966	
Lead	30.4	0.483	0.966	
Molybdenum	0.659	0.242	0.966	
Nickel	19.4	0.242	0.966	
Selenium	ND	0.725	0.966	
Silver	ND	0.242	0.966	
Thallium	ND	0.725	0.966	
Vanadium	46.7	0.242	0.966	
Zinc	96.1	0.966	0.966	

  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

Tetra Tech, Inc.  
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Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP9-1	17-04-1498-49-A	04/19/17 14:30	Solid	ICP 7300	04/26/17	04/27/17 13:31	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	6.70	0.714	0.952	
Barium	173	0.476	0.952	
Beryllium	0.417	0.238	0.952	
Cadmium	0.968	0.476	0.952	
Chromium	25.8	0.238	0.952	
Cobalt	8.71	0.238	0.952	
Copper	28.4	0.476	0.952	
Lead	12.9	0.476	0.952	
Molybdenum	0.599	0.238	0.952	
Nickel	19.4	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	37.3	0.238	0.952	
Zinc	71.5	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP9-3	17-04-1498-50-A	04/19/17 14:32	Solid	ICP 7300	04/26/17	04/27/17 13:32	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.769	1.03	
Arsenic	5.55	0.769	1.03	
Barium	202	0.513	1.03	
Beryllium	0.501	0.256	1.03	
Cadmium	0.834	0.513	1.03	
Chromium	26.0	0.256	1.03	
Cobalt	9.62	0.256	1.03	
Copper	25.8	0.513	1.03	
Lead	14.5	0.513	1.03	
Molybdenum	0.373	0.256	1.03	
Nickel	21.0	0.256	1.03	
Selenium	ND	0.769	1.03	
Silver	ND	0.256	1.03	
Thallium	ND	0.769	1.03	
Vanadium	39.7	0.256	1.03	
Zinc	66.3	1.03	1.03	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP9-5	17-04-1498-51-A	04/19/17 14:34	Solid	ICP 7300	04/26/17	04/27/17 13:33	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.721	0.962	
Arsenic	5.99	0.721	0.962	
Barium	213	0.481	0.962	
Beryllium	0.521	0.240	0.962	
Cadmium	1.12	0.481	0.962	
Chromium	29.0	0.240	0.962	
Cobalt	9.65	0.240	0.962	
Copper	29.3	0.481	0.962	
Lead	17.0	0.481	0.962	
Molybdenum	0.728	0.240	0.962	
Nickel	21.5	0.240	0.962	
Selenium	ND	0.721	0.962	
Silver	ND	0.240	0.962	
Thallium	ND	0.721	0.962	
Vanadium	43.5	0.240	0.962	
Zinc	79.7	0.962	0.962	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP9-8	17-04-1498-52-A	04/19/17 14:36	Solid	ICP 7300	05/04/17	05/04/17 15:58	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.773	1.03	
Arsenic	2.32	0.773	1.03	
Barium	192	0.515	1.03	
Beryllium	0.479	0.258	1.03	
Cadmium	1.10	0.515	1.03	
Chromium	42.8	0.258	1.03	
Cobalt	8.10	0.258	1.03	
Copper	37.1	0.515	1.03	
Lead	39.1	0.515	1.03	
Molybdenum	0.272	0.258	1.03	
Nickel	18.2	0.258	1.03	
Selenium	ND	0.773	1.03	
Silver	ND	0.258	1.03	
Thallium	ND	0.773	1.03	
Vanadium	35.1	0.258	1.03	
Zinc	123	1.03	1.03	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP10-1	17-04-1498-55-A	04/19/17 07:30	Solid	ICP 7300	04/26/17	04/27/17 13:34	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.746	0.995	
Arsenic	4.25	0.746	0.995	
Barium	221	0.498	0.995	
Beryllium	0.382	0.249	0.995	
Cadmium	1.45	0.498	0.995	
Chromium	23.3	0.249	0.995	
Cobalt	6.91	0.249	0.995	
Copper	24.9	0.498	0.995	
Lead	9.46	0.498	0.995	
Molybdenum	0.663	0.249	0.995	
Nickel	20.6	0.249	0.995	
Selenium	ND	0.746	0.995	
Silver	ND	0.249	0.995	
Thallium	ND	0.746	0.995	
Vanadium	33.5	0.249	0.995	
Zinc	60.6	0.995	0.995	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP10-3	17-04-1498-56-A	04/19/17 07:32	Solid	ICP 7300	04/26/17	04/27/17 13:34	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	4.48	0.761	1.02	
Barium	146	0.508	1.02	
Beryllium	0.350	0.254	1.02	
Cadmium	0.668	0.508	1.02	
Chromium	17.1	0.254	1.02	
Cobalt	6.83	0.254	1.02	
Copper	17.4	0.508	1.02	
Lead	6.82	0.508	1.02	
Molybdenum	0.596	0.254	1.02	
Nickel	14.6	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	29.8	0.254	1.02	
Zinc	49.8	1.02	1.02	


  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 3050B
	Method:	EPA 6010B
	Units:	mg/kg

Project: Carriage Crest Park (CCP) Page 44 of 63

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP10-5	17-04-1498-57-A	04/19/17 07:34	Solid	ICP 7300	04/26/17	04/27/17 13:35	170426L12
Parameter		Result	RL	DF	Qualifiers		
Antimony		ND	0.750	1.00			
Arsenic		5.16	0.750	1.00			
Barium		187	0.500	1.00			
Beryllium		0.508	0.250	1.00			
Cadmium		0.701	0.500	1.00			
Chromium		23.6	0.250	1.00			
Cobalt		10.1	0.250	1.00			
Copper		24.1	0.500	1.00			
Lead		11.5	0.500	1.00			
Molybdenum		1.75	0.250	1.00			
Nickel		19.2	0.250	1.00			
Selenium		ND	0.750	1.00			
Silver		ND	0.250	1.00			
Thallium		ND	0.750	1.00			
Vanadium		42.3	0.250	1.00			
Zinc		61.3	1.00	1.00			


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP10-8	17-04-1498-58-A	04/19/17 07:36	Solid	ICP 7300	05/04/17	05/04/17 16:00	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.725	0.966	
Arsenic	ND	0.725	0.966	
Barium	210	0.483	0.966	
Beryllium	0.486	0.242	0.966	
Cadmium	ND	0.483	0.966	
Chromium	18.1	0.242	0.966	
Cobalt	10.1	0.242	0.966	
Copper	17.9	0.483	0.966	
Lead	6.43	0.483	0.966	
Molybdenum	ND	0.242	0.966	
Nickel	13.5	0.242	0.966	
Selenium	ND	0.725	0.966	
Silver	ND	0.242	0.966	
Thallium	ND	0.725	0.966	
Vanadium	44.7	0.242	0.966	
Zinc	60.2	0.966	0.966	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 3050B
	Method:	EPA 6010B
	Units:	mg/kg

Project: Carriage Crest Park (CCP) Page 46 of 63

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP11-1	17-04-1498-61-A	04/19/17 11:44	Solid	ICP 7300	04/26/17	04/27/17 13:36	170426L12
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Antimony		ND		0.758		1.01	
Arsenic		8.54		0.758		1.01	
Barium		263		0.505		1.01	
Beryllium		0.523		0.253		1.01	
Cadmium		3.99		0.505		1.01	
Chromium		64.4		0.253		1.01	
Cobalt		7.93		0.253		1.01	
Copper		70.9		0.505		1.01	
Lead		84.5		0.505		1.01	
Molybdenum		0.580		0.253		1.01	
Nickel		26.3		0.253		1.01	
Selenium		ND		0.758		1.01	
Silver		1.32		0.253		1.01	
Thallium		ND		0.758		1.01	
Vanadium		33.1		0.253		1.01	
Zinc		276		1.01		1.01	


  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP11-3	17-04-1498-62-A	04/19/17 11:50	Solid	ICP 7300	04/26/17	04/27/17 13:37	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.789	1.05	
Arsenic	5.07	0.789	1.05	
Barium	225	0.526	1.05	
Beryllium	0.472	0.263	1.05	
Cadmium	1.16	0.526	1.05	
Chromium	24.2	0.263	1.05	
Cobalt	10.6	0.263	1.05	
Copper	27.4	0.526	1.05	
Lead	11.9	0.526	1.05	
Molybdenum	0.647	0.263	1.05	
Nickel	22.8	0.263	1.05	
Selenium	ND	0.789	1.05	
Silver	ND	0.263	1.05	
Thallium	ND	0.789	1.05	
Vanadium	39.1	0.263	1.05	
Zinc	61.0	1.05	1.05	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP11-5	17-04-1498-63-A	04/19/17 11:48	Solid	ICP 7300	04/26/17	04/27/17 13:38	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.765	1.02	
Arsenic	2.25	0.765	1.02	
Barium	189	0.510	1.02	
Beryllium	0.536	0.255	1.02	
Cadmium	0.635	0.510	1.02	
Chromium	11.9	0.255	1.02	
Cobalt	8.87	0.255	1.02	
Copper	19.3	0.510	1.02	
Lead	5.33	0.510	1.02	
Molybdenum	0.302	0.255	1.02	
Nickel	13.6	0.255	1.02	
Selenium	ND	0.765	1.02	
Silver	ND	0.255	1.02	
Thallium	ND	0.765	1.02	
Vanadium	21.3	0.255	1.02	
Zinc	37.9	1.02	1.02	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-1	17-04-1498-67-A	04/19/17 12:22	Solid	ICP 7300	04/26/17	04/27/17 13:40	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.728	0.971	
Arsenic	8.36	0.728	0.971	
Barium	323	0.485	0.971	
Beryllium	0.602	0.243	0.971	
Cadmium	6.15	0.485	0.971	
Chromium	107	0.243	0.971	
Cobalt	8.86	0.243	0.971	
Copper	101	0.485	0.971	
Lead	127	0.485	0.971	
Molybdenum	0.894	0.243	0.971	
Nickel	32.9	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	2.18	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	36.6	0.243	0.971	
Zinc	328	0.971	0.971	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-3	17-04-1498-68-A	04/19/17 12:24	Solid	ICP 7300	04/26/17	04/27/17 13:41	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	5.49	0.714	0.952	
Barium	169	0.476	0.952	
Beryllium	0.474	0.238	0.952	
Cadmium	0.871	0.476	0.952	
Chromium	24.4	0.238	0.952	
Cobalt	8.97	0.238	0.952	
Copper	23.3	0.476	0.952	
Lead	11.9	0.476	0.952	
Molybdenum	0.268	0.238	0.952	
Nickel	18.5	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	ND	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	38.0	0.238	0.952	
Zinc	63.8	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-5	17-04-1498-69-A	04/19/17 12:26	Solid	ICP 7300	04/26/17	04/27/17 13:42	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.777	1.04	
Arsenic	6.38	0.777	1.04	
Barium	146	0.518	1.04	
Beryllium	0.457	0.259	1.04	
Cadmium	0.628	0.518	1.04	
Chromium	22.8	0.259	1.04	
Cobalt	9.74	0.259	1.04	
Copper	23.3	0.518	1.04	
Lead	19.0	0.518	1.04	
Molybdenum	0.388	0.259	1.04	
Nickel	17.7	0.259	1.04	
Selenium	ND	0.777	1.04	
Silver	ND	0.259	1.04	
Thallium	ND	0.777	1.04	
Vanadium	40.3	0.259	1.04	
Zinc	62.7	1.04	1.04	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-8	17-04-1498-70-A	04/19/17 12:28	Solid	ICP 7300	05/04/17	05/04/17 16:01	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.761	1.02	
Arsenic	1.08	0.761	1.02	
Barium	101	0.508	1.02	
Beryllium	0.432	0.254	1.02	
Cadmium	ND	0.508	1.02	
Chromium	18.1	0.254	1.02	
Cobalt	10.9	0.254	1.02	
Copper	19.6	0.508	1.02	
Lead	5.10	0.508	1.02	
Molybdenum	ND	0.254	1.02	
Nickel	14.0	0.254	1.02	
Selenium	ND	0.761	1.02	
Silver	ND	0.254	1.02	
Thallium	ND	0.761	1.02	
Vanadium	36.1	0.254	1.02	
Zinc	45.9	1.02	1.02	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-8-00	17-04-1498-75-A	04/19/17 09:22	Solid	ICP 7300	05/04/17	05/04/17 16:01	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.718	0.957	
Arsenic	5.63	0.718	0.957	
Barium	357	0.478	0.957	
Beryllium	0.564	0.239	0.957	
Cadmium	1.27	0.478	0.957	
Chromium	35.8	0.239	0.957	
Cobalt	12.5	0.239	0.957	
Copper	35.9	0.478	0.957	
Lead	16.2	0.478	0.957	
Molybdenum	0.858	0.239	0.957	
Nickel	32.4	0.239	0.957	
Selenium	ND	0.718	0.957	
Silver	ND	0.239	0.957	
Thallium	ND	0.718	0.957	
Vanadium	52.3	0.239	0.957	
Zinc	79.3	0.957	0.957	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10-00	17-04-1498-76-A	04/19/17 09:24	Solid	ICP 7300	05/04/17	05/04/17 16:04	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.758	1.01	
Arsenic	16.1	0.758	1.01	
Barium	383	0.505	1.01	
Beryllium	0.542	0.253	1.01	
Cadmium	11.7	0.505	1.01	
Chromium	276	0.253	1.01	
Cobalt	12.0	0.253	1.01	
Copper	306	0.505	1.01	
Lead	195	0.505	1.01	
Molybdenum	1.54	0.253	1.01	
Nickel	80.0	0.253	1.01	
Selenium	ND	0.758	1.01	
Silver	2.99	0.253	1.01	
Thallium	ND	0.758	1.01	
Vanadium	42.7	0.253	1.01	
Zinc	668	1.01	1.01	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP11-3-00	17-04-1498-77-A	04/19/17 11:51	Solid	ICP 7300	05/04/17	05/04/17 16:05	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.739	0.985	
Arsenic	4.41	0.739	0.985	
Barium	146	0.493	0.985	
Beryllium	0.416	0.246	0.985	
Cadmium	1.12	0.493	0.985	
Chromium	29.4	0.246	0.985	
Cobalt	8.92	0.246	0.985	
Copper	29.5	0.493	0.985	
Lead	30.3	0.493	0.985	
Molybdenum	0.708	0.246	0.985	
Nickel	16.4	0.246	0.985	
Selenium	ND	0.739	0.985	
Silver	ND	0.246	0.985	
Thallium	ND	0.739	0.985	
Vanadium	38.1	0.246	0.985	
Zinc	91.8	0.985	0.985	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-8-00	17-04-1498-78-A	04/19/17 11:19	Solid	ICP 7300	05/04/17	05/04/17 16:06	170504L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.728	0.971	
Arsenic	3.50	0.728	0.971	
Barium	215	0.485	0.971	
Beryllium	0.532	0.243	0.971	
Cadmium	1.08	0.485	0.971	
Chromium	29.0	0.243	0.971	
Cobalt	11.4	0.243	0.971	
Copper	29.8	0.485	0.971	
Lead	40.6	0.485	0.971	
Molybdenum	0.628	0.243	0.971	
Nickel	21.4	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	ND	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	47.8	0.243	0.971	
Zinc	111	0.971	0.971	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-10-00	17-04-1498-79-A	04/19/17 10:09	Solid	ICP 7300	04/26/17	04/27/17 13:43	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	1.79	0.732	0.976	
Arsenic	30.5	0.732	0.976	
Barium	353	0.488	0.976	
Beryllium	0.617	0.244	0.976	
Cadmium	13.0	0.488	0.976	
Chromium	304	0.244	0.976	
Cobalt	12.6	0.244	0.976	
Copper	360	0.488	0.976	
Lead	186	0.488	0.976	
Molybdenum	1.28	0.244	0.976	
Nickel	89.3	0.244	0.976	
Selenium	ND	0.732	0.976	
Silver	3.51	0.244	0.976	
Thallium	ND	0.732	0.976	
Vanadium	38.6	0.244	0.976	
Zinc	767	0.976	0.976	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DRUM1	17-04-1498-80-A	04/19/17 15:15	Solid	ICP 7300	04/26/17	04/27/17 13:44	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.714	0.952	
Arsenic	7.74	0.714	0.952	
Barium	252	0.476	0.952	
Beryllium	0.535	0.238	0.952	
Cadmium	3.12	0.476	0.952	
Chromium	51.4	0.238	0.952	
Cobalt	6.38	0.238	0.952	
Copper	60.8	0.476	0.952	
Lead	22.9	0.476	0.952	
Molybdenum	0.582	0.238	0.952	
Nickel	30.8	0.238	0.952	
Selenium	ND	0.714	0.952	
Silver	0.382	0.238	0.952	
Thallium	ND	0.714	0.952	
Vanadium	31.5	0.238	0.952	
Zinc	136	0.952	0.952	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 3050B
	Method:	EPA 6010B
	Units:	mg/kg

Project: Carriage Crest Park (CCP) Page 59 of 63

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>097-01-002-24752</b>	<b>N/A</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>04/26/17</b>	<b>04/27/17 12:48</b>	<b>170426L11</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.721	0.962	
Arsenic	ND	0.721	0.962	
Barium	ND	0.481	0.962	
Beryllium	ND	0.240	0.962	
Cadmium	ND	0.481	0.962	
Chromium	ND	0.240	0.962	
Cobalt	ND	0.240	0.962	
Copper	ND	0.481	0.962	
Lead	ND	0.481	0.962	
Molybdenum	ND	0.240	0.962	
Nickel	ND	0.240	0.962	
Selenium	ND	0.721	0.962	
Silver	ND	0.240	0.962	
Thallium	ND	0.721	0.962	
Vanadium	ND	0.240	0.962	
Zinc	ND	0.962	0.962	

  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-24753	N/A	Solid	ICP 7300	04/26/17	04/27/17 12:50	170426L12

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.725	0.966	
Arsenic	ND	0.725	0.966	
Barium	ND	0.483	0.966	
Beryllium	ND	0.242	0.966	
Cadmium	ND	0.483	0.966	
Chromium	ND	0.242	0.966	
Cobalt	ND	0.242	0.966	
Copper	ND	0.483	0.966	
Lead	ND	0.483	0.966	
Molybdenum	ND	0.242	0.966	
Nickel	ND	0.242	0.966	
Selenium	ND	0.725	0.966	
Silver	ND	0.242	0.966	
Thallium	ND	0.725	0.966	
Vanadium	ND	0.242	0.966	
Zinc	ND	0.966	0.966	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 3050B
	Method:	EPA 6010B
	Units:	mg/kg

Project: Carriage Crest Park (CCP) Page 61 of 63

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>097-01-002-24805</b>	<b>N/A</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>05/04/17</b>	<b>05/04/17 15:45</b>	<b>170504L01</b>
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Antimony		ND		0.725		0.966	
Arsenic		ND		0.725		0.966	
Barium		ND		0.483		0.966	
Beryllium		ND		0.242		0.966	
Cadmium		ND		0.483		0.966	
Chromium		ND		0.242		0.966	
Cobalt		ND		0.242		0.966	
Copper		ND		0.483		0.966	
Lead		ND		0.483		0.966	
Molybdenum		ND		0.242		0.966	
Nickel		ND		0.242		0.966	
Selenium		ND		0.725		0.966	
Silver		ND		0.242		0.966	
Thallium		ND		0.725		0.966	
Vanadium		ND		0.242		0.966	
Zinc		ND		0.966		0.966	


  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-24818	N/A	Solid	ICP 7300	05/08/17	05/08/17 15:01	170508L04

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.735	0.980	
Arsenic	ND	0.735	0.980	
Barium	ND	0.490	0.980	
Beryllium	ND	0.245	0.980	
Cadmium	ND	0.490	0.980	
Chromium	ND	0.245	0.980	
Cobalt	ND	0.245	0.980	
Copper	ND	0.490	0.980	
Lead	ND	0.490	0.980	
Molybdenum	ND	0.245	0.980	
Nickel	ND	0.245	0.980	
Selenium	ND	0.735	0.980	
Silver	ND	0.245	0.980	
Thallium	ND	0.735	0.980	
Vanadium	ND	0.245	0.980	
Zinc	ND	0.980	0.980	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 3050B
	Method:	EPA 6010B
	Units:	mg/kg

Project: Carriage Crest Park (CCP) Page 63 of 63

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>097-01-002-24852</b>	<b>N/A</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>05/12/17</b>	<b>05/15/17 12:16</b>	<b>170512L08</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Antimony	ND	0.728	0.971	
Arsenic	ND	0.728	0.971	
Barium	ND	0.485	0.971	
Beryllium	ND	0.243	0.971	
Cadmium	ND	0.485	0.971	
Chromium	ND	0.243	0.971	
Cobalt	ND	0.243	0.971	
Copper	ND	0.485	0.971	
Lead	ND	0.485	0.971	
Molybdenum	ND	0.243	0.971	
Nickel	ND	0.243	0.971	
Selenium	ND	0.728	0.971	
Silver	ND	0.243	0.971	
Thallium	ND	0.728	0.971	
Vanadium	ND	0.243	0.971	
Zinc	ND	0.971	0.971	

  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3010A Total  
Method: EPA 6010B  
Units: mg/L

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB04192017	17-04-1498-74-B	04/19/17 15:00	Aqueous	ICP 7300	04/25/17	04/26/17 17:52	170425LA9

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	ND	0.0100	1.00	
Barium	ND	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	ND	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	ND	0.0100	1.00	
Zinc	ND	0.0100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3010A Total  
Method: EPA 6010B  
Units: mg/L

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-003-16431	N/A	Aqueous	ICP 7300	04/25/17	04/26/17 16:02	170425LA9

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.0150	1.00	
Arsenic	ND	0.0100	1.00	
Barium	ND	0.0100	1.00	
Beryllium	ND	0.0100	1.00	
Cadmium	ND	0.0100	1.00	
Chromium	ND	0.0100	1.00	
Cobalt	ND	0.0100	1.00	
Copper	ND	0.0100	1.00	
Lead	ND	0.0100	1.00	
Molybdenum	ND	0.0100	1.00	
Nickel	ND	0.0100	1.00	
Selenium	ND	0.0150	1.00	
Silver	ND	0.00500	1.00	
Thallium	ND	0.0150	1.00	
Vanadium	ND	0.0100	1.00	
Zinc	ND	0.0100	1.00	


  
Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: T22.11.5. All  
Method: EPA 6010B  
Units: mg/L

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-1	17-04-1498-1-A	04/19/17 09:15	Solid	ICP 7300	05/04/17	05/09/17 11:17	170508LA9

Comment(s): - The analysis was performed on a STLC extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	2.63	0.100	1.00	
Lead	3.78	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10	17-04-1498-5-A	04/19/17 09:23	Solid	ICP 7300	05/11/17	05/15/17 15:17	170515LA5

Comment(s): - The analysis was performed on a STLC extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Cadmium	0.383	0.100	1.00	
Chromium	19.9	0.100	1.00	
Copper	1.46	0.100	1.00	
Lead	11.0	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-1	17-04-1498-19-A	04/19/17 09:01	Solid	ICP 7300	05/04/17	05/09/17 11:18	170508LA9

Comment(s): - The analysis was performed on a STLC extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	7.66	0.100	1.00	
Lead	9.75	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-1	17-04-1498-25-A	04/19/17 10:45	Solid	ICP 7300	05/04/17	05/09/17 11:19	170508LA9

Comment(s): - The analysis was performed on a STLC extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	0.742	0.100	1.00	
Lead	0.505	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-1	17-04-1498-43-A	04/19/17 11:10	Solid	ICP 7300	05/04/17	05/09/17 11:22	170508LA9

Comment(s): - The analysis was performed on a STLC extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	15.3	0.100	1.00	
Lead	14.1	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: T22.11.5. All  
Method: EPA 6010B  
Units: mg/L

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-5	17-04-1498-45-A	04/19/17 11:14	Solid	ICP 7300	05/04/17	05/09/17 11:23	170508LA9

Comment(s): - The analysis was performed on a STLC extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	0.903	0.100	1.00	
Lead	1.24	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP11-1	17-04-1498-61-A	04/19/17 11:44	Solid	ICP 7300	05/04/17	05/09/17 11:24	170508LA9

Comment(s): - The analysis was performed on a STLC extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	1.08	0.100	1.00	
Lead	2.16	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-1	17-04-1498-67-A	04/19/17 12:22	Solid	ICP 7300	05/04/17	05/09/17 11:25	170508LA9

Comment(s): - The analysis was performed on a STLC extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	5.54	0.100	1.00	
Lead	6.14	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10-00	17-04-1498-76-A	04/19/17 09:24	Solid	ICP 7300	05/11/17	05/15/17 15:18	170515LA5

Comment(s): - The analysis was performed on a STLC extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Cadmium	0.353	0.100	1.00	
Chromium	6.70	0.100	1.00	
Copper	1.15	0.100	1.00	
Lead	7.30	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-10-00	17-04-1498-79-A	04/19/17 10:09	Solid	ICP 7300	05/04/17	05/09/17 11:26	170508LA9

Comment(s): - The analysis was performed on a STLC extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Cadmium	0.143	0.100	1.00	
Chromium	0.870	0.100	1.00	
Copper	1.72	0.100	1.00	
Lead	1.84	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: T22.11.5. All  
Method: EPA 6010B  
Units: mg/L

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DRUM1	17-04-1498-80-A	04/19/17 15:15	Solid	ICP 7300	05/04/17	05/09/17 11:26	170508LA9

Comment(s): - The analysis was performed on a STLC extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	0.226	0.100	1.00	

Method Blank	097-05-006-9049	N/A	Aqueous	ICP 7300	05/04/17	05/09/17 10:39	170508LA9
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Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	0.100	1.00	
Chromium	ND	0.100	1.00	
Copper	ND	0.100	1.00	
Lead	ND	0.100	1.00	

Method Blank	097-05-006-9060	N/A	Aqueous	ICP 7300	05/11/17	05/15/17 15:10	170515LA5
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Parameter	Result	RL	DF	Qualifiers
Cadmium	ND	0.100	1.00	
Chromium	ND	0.100	1.00	
Copper	ND	0.100	1.00	
Lead	ND	0.100	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 1311  
Method: EPA 6010B  
Units: mg/L

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-1	17-04-1498-1-A	04/19/17 09:15	Solid	ICP 7300	05/04/17	05/08/17 11:53	170505LA5

Comment(s): - The analysis was performed on a TCLP extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Lead	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10	17-04-1498-5-A	04/19/17 09:23	Solid	ICP 7300	05/11/17	05/12/17 13:46	170512LA2

Comment(s): - The analysis was performed on a TCLP extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	ND	0.100	1.00	
Lead	0.183	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-1	17-04-1498-19-A	04/19/17 09:01	Solid	ICP 7300	05/04/17	05/08/17 11:54	170505LA5

Comment(s): - The analysis was performed on a TCLP extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	ND	0.100	1.00	
Lead	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-1	17-04-1498-43-A	04/19/17 11:10	Solid	ICP 7300	05/04/17	05/08/17 11:54	170505LA5

Comment(s): - The analysis was performed on a TCLP extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	ND	0.100	1.00	
Lead	ND	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-1	17-04-1498-67-A	04/19/17 12:22	Solid	ICP 7300	05/04/17	05/08/17 11:55	170505LA5

Comment(s): - The analysis was performed on a TCLP extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	ND	0.100	1.00	
Lead	ND	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





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### Analytical Report

Tetra Tech, Inc.  
 3475 East Foothill Blvd., Suite 300  
 Pasadena, CA 91107-6024

Date Received: 04/20/17  
 Work Order: 17-04-1498  
 Preparation: EPA 1311  
 Method: EPA 6010B  
 Units: mg/L

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10-00	17-04-1498-76-A	04/19/17 09:24	Solid	ICP 7300	05/11/17	05/12/17 13:47	170512LA2

Comment(s): - The analysis was performed on a TCLP extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	ND	0.100	1.00	
Lead	ND	0.100	1.00	

DP2-10-00	17-04-1498-79-A	04/19/17 10:09	Solid	ICP 7300	05/04/17	05/08/17 11:56	170505LA5
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Comment(s): - The analysis was performed on a TCLP extract of the sample.

Parameter	Result	RL	DF	Qualifiers
Chromium	ND	0.100	1.00	
Lead	ND	0.100	1.00	

Method Blank	099-14-021-2293	N/A	Aqueous	ICP 7300	05/04/17	05/08/17 11:31	170505LA5
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Parameter	Result	RL	DF	Qualifiers
Chromium	ND	0.100	1.00	
Lead	ND	0.100	1.00	

Method Blank	099-14-021-2302	N/A	Aqueous	ICP 7300	05/11/17	05/12/17 13:37	170512LA2
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Parameter	Result	RL	DF	Qualifiers
Chromium	ND	0.100	1.00	
Lead	ND	0.100	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7470A Total  
Method: EPA 7470A  
Units: mg/L

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB04192017	17-04-1498-74-B	04/19/17 15:00	Aqueous	Mercury 08	04/25/17	04/25/17 18:56	170425LA2

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.000500	1.00	

Method Blank	099-04-008-8187	N/A	Aqueous	Mercury 08	04/25/17	04/25/17 16:18	170425LA2
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.000500	1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-1	17-04-1498-1-A	04/19/17 09:15	Solid	Mercury 08	04/27/17	04/27/17 13:20	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.552		0.0847		1.00	
DP1-3	17-04-1498-2-A	04/19/17 09:17	Solid	Mercury 08	04/27/17	04/27/17 13:27	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0806		1.00	
DP1-5	17-04-1498-3-A	04/19/17 09:19	Solid	Mercury 08	04/27/17	04/27/17 13:29	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.0996		0.0806		1.00	
DP1-8	17-04-1498-4-A	04/19/17 09:21	Solid	Mercury 08	05/05/17	05/05/17 16:16	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP1-10	17-04-1498-5-A	04/19/17 09:23	Solid	Mercury 08	05/05/17	05/05/17 16:23	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.838		0.0877		1.00	
DP1-15	17-04-1498-6-A	04/19/17 09:25	Solid	Mercury 08	05/16/17	05/16/17 12:10	170515L03
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0833		1.00	
DP2-1	17-04-1498-7-A	04/19/17 10:00	Solid	Mercury 08	04/27/17	04/27/17 13:31	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP2-3	17-04-1498-8-A	04/19/17 10:02	Solid	Mercury 08	04/27/17	04/27/17 13:33	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0833		1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-5	17-04-1498-9-A	04/19/17 10:04	Solid	Mercury 08	04/27/17	04/27/17 13:36	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP2-8	17-04-1498-10-A	04/19/17 10:06	Solid	Mercury 08	05/05/17	05/05/17 16:26	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP2-10	17-04-1498-11-A	04/19/17 10:08	Solid	Mercury 08	05/09/17	05/09/17 18:16	170509L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		5.43		0.806		10.0	
DP2-15	17-04-1498-12-A	04/19/17 10:10	Solid	Mercury 08	05/05/17	05/05/17 16:28	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP3-1	17-04-1498-13-A	04/19/17 12:55	Solid	Mercury 08	04/27/17	04/27/17 13:43	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0806		1.00	
DP3-3	17-04-1498-14-A	04/19/17 12:57	Solid	Mercury 08	04/27/17	04/27/17 13:45	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP3-5	17-04-1498-15-A	04/19/17 12:59	Solid	Mercury 08	04/27/17	04/27/17 13:47	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0877		1.00	
DP3-8	17-04-1498-16-A	04/19/17 13:01	Solid	Mercury 08	05/05/17	05/05/17 16:30	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0833		1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP3-10	17-04-1498-17-A	04/19/17 13:03	Solid	Mercury 08	05/05/17	05/05/17 16:32	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.149		0.0794		1.00	
DP4-1	17-04-1498-19-A	04/19/17 09:01	Solid	Mercury 08	04/27/17	04/27/17 13:49	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		1.76		0.0862		1.00	
DP4-3	17-04-1498-20-A	04/19/17 09:03	Solid	Mercury 08	04/27/17	04/27/17 13:52	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP4-5	17-04-1498-21-A	04/19/17 09:05	Solid	Mercury 08	04/27/17	04/27/17 13:54	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.0977		0.0833		1.00	
DP4-8	17-04-1498-22-A	04/19/17 09:07	Solid	Mercury 08	05/05/17	05/05/17 16:39	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.181		0.0794		1.00	
DP5-1	17-04-1498-25-A	04/19/17 10:45	Solid	Mercury 08	04/27/17	04/27/17 13:56	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.139		0.0862		1.00	
DP5-3	17-04-1498-26-A	04/19/17 10:47	Solid	Mercury 08	04/27/17	04/27/17 13:58	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0833		1.00	
DP5-5	17-04-1498-27-A	04/19/17 10:49	Solid	Mercury 08	04/27/17	04/27/17 14:01	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0877		1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-8	17-04-1498-28-A	04/19/17 10:51	Solid	Mercury 08	05/05/17	05/05/17 16:42	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0862		1.00	
DP5-10	17-04-1498-29-A	04/19/17 10:53	Solid	Mercury 08	05/05/17	05/05/17 16:44	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP6-1	17-04-1498-31-A	04/19/17 13:50	Solid	Mercury 08	04/27/17	04/27/17 20:19	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		1.07		0.862		10.0	
DP6-3	17-04-1498-32-A	04/19/17 13:52	Solid	Mercury 08	04/27/17	04/27/17 14:10	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0862		1.00	
DP6-5	17-04-1498-33-A	04/19/17 13:54	Solid	Mercury 08	04/27/17	04/27/17 14:12	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP6-8	17-04-1498-34-A	04/19/17 13:58	Solid	Mercury 08	05/05/17	05/05/17 16:46	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0833		1.00	
DP7-1	17-04-1498-37-A	04/19/17 08:18	Solid	Mercury 08	04/27/17	04/27/17 14:14	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.0951		0.0794		1.00	
DP7-3	17-04-1498-38-A	04/19/17 08:20	Solid	Mercury 08	04/27/17	04/27/17 14:17	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0820		1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP7-5	17-04-1498-39-A	04/19/17 08:22	Solid	Mercury 08	04/27/17	04/27/17 14:30	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0847		1.00	
DP8-1	17-04-1498-43-A	04/19/17 11:10	Solid	Mercury 08	04/27/17	04/27/17 14:24	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		1.06		0.0833		1.00	
DP8-3	17-04-1498-44-A	04/19/17 11:12	Solid	Mercury 08	04/27/17	04/27/17 14:37	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0833		1.00	
DP8-5	17-04-1498-45-A	04/19/17 11:14	Solid	Mercury 08	04/27/17	04/27/17 14:40	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.410		0.0877		1.00	
DP8-8	17-04-1498-46-A	04/19/17 11:16	Solid	Mercury 08	05/05/17	05/05/17 16:48	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP9-1	17-04-1498-49-A	04/19/17 14:30	Solid	Mercury 08	04/27/17	04/27/17 14:42	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.0874		0.0794		1.00	
DP9-3	17-04-1498-50-A	04/19/17 14:32	Solid	Mercury 08	04/27/17	04/27/17 14:44	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP9-5	17-04-1498-51-A	04/19/17 14:34	Solid	Mercury 08	04/27/17	04/27/17 14:46	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP9-8	17-04-1498-52-A	04/19/17 14:36	Solid	Mercury 08	05/05/17	05/05/17 16:51	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.111		0.0862		1.00	
DP10-1	17-04-1498-55-A	04/19/17 07:30	Solid	Mercury 08	04/27/17	04/27/17 14:49	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0806		1.00	
DP10-3	17-04-1498-56-A	04/19/17 07:32	Solid	Mercury 08	04/27/17	04/27/17 14:51	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP10-5	17-04-1498-57-A	04/19/17 07:34	Solid	Mercury 08	04/27/17	04/27/17 14:57	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0877		1.00	
DP10-8	17-04-1498-58-A	04/19/17 07:36	Solid	Mercury 08	05/05/17	05/05/17 16:53	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0877		1.00	
DP11-1	17-04-1498-61-A	04/19/17 11:44	Solid	Mercury 08	04/27/17	04/27/17 14:59	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.377		0.0794		1.00	
DP11-3	17-04-1498-62-A	04/19/17 11:50	Solid	Mercury 08	04/27/17	04/27/17 15:02	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.0879		0.0820		1.00	
DP11-5	17-04-1498-63-A	04/19/17 11:48	Solid	Mercury 08	04/27/17	04/27/17 15:09	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-1	17-04-1498-67-A	04/19/17 12:22	Solid	Mercury 08	04/27/17	04/27/17 15:11	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.616		0.0806		1.00	
DP12-3	17-04-1498-68-A	04/19/17 12:24	Solid	Mercury 08	04/27/17	04/27/17 15:13	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.0888		0.0794		1.00	
DP12-5	17-04-1498-69-A	04/19/17 12:26	Solid	Mercury 08	04/27/17	04/27/17 15:15	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP12-8	17-04-1498-70-A	04/19/17 12:28	Solid	Mercury 08	05/05/17	05/05/17 16:55	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP1-8-00	17-04-1498-75-A	04/19/17 09:22	Solid	Mercury 08	05/05/17	05/05/17 16:58	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP1-10-00	17-04-1498-76-A	04/19/17 09:24	Solid	Mercury 08	05/05/17	05/05/17 17:00	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.961		0.0847		1.00	
DP11-3-00	17-04-1498-77-A	04/19/17 11:51	Solid	Mercury 08	05/05/17	05/05/17 17:07	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0794		1.00	
DP8-8-00	17-04-1498-78-A	04/19/17 11:19	Solid	Mercury 08	05/05/17	05/05/17 17:09	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		0.129		0.0862		1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A  
Units: mg/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-10-00	17-04-1498-79-A	04/19/17 10:09	Solid	Mercury 08	04/27/17	04/27/17 15:18	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		1.14		0.0847		1.00	
DRUM1	17-04-1498-80-A	04/19/17 15:15	Solid	Mercury 08	04/27/17	04/27/17 15:20	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0806		1.00	
Method Blank	099-16-272-2977	N/A	Solid	Mercury 08	04/27/17	04/27/17 13:15	170427L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0833		1.00	
Method Blank	099-16-272-2978	N/A	Solid	Mercury 08	04/27/17	04/27/17 14:19	170427L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0833		1.00	
Method Blank	099-16-272-2995	N/A	Solid	Mercury 08	05/05/17	05/05/17 16:12	170505L02
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0833		1.00	
Method Blank	099-16-272-3000	N/A	Solid	Mercury 08	05/09/17	05/09/17 14:06	170509L01
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0833		1.00	
Method Blank	099-16-272-3017	N/A	Solid	Mercury 08	05/15/17	05/15/17 19:04	170515L03
<u>Parameter</u>		<u>Result</u>		<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>
Mercury		ND		0.0847		1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

Page 1 of 66

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-1	17-04-1498-1-A	04/19/17 09:15	Solid	GC 44	04/24/17	04/26/17 05:27	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDT	28	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	24-168	
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	

DP1-1	17-04-1498-1-A	04/19/17 09:15	Solid	GC 44	04/24/17	04/27/17 06:24	170424L03
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	40	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	74	24-168	
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-1	17-04-1498-1-A	04/19/17 09:15	Solid	GC 44	04/24/17	04/27/17 13:42	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	6900	2500	500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	245	24-168	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	165	25-145	1,2,7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-3	17-04-1498-2-A	04/19/17 09:17	Solid	GC 44	04/24/17	04/26/17 05:41	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	ND	49	1.00	
4,4'-DDD	9.3	4.9	1.00	
4,4'-DDT	15	4.9	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	79	24-168	
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-3	17-04-1498-2-A	04/19/17 09:17	Solid	GC 44	04/24/17	04/27/17 06:38	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	160	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	82	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-5	17-04-1498-3-A	04/19/17 09:19	Solid	GC 44	04/24/17	04/26/17 05:56	170424L03

Parameter	Result	RL	DF	Qualifiers
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Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	ND	49	1.00	
4,4'-DDD	9.2	4.9	1.00	
4,4'-DDT	7.3	4.9	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	78	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-5	17-04-1498-3-A	04/19/17 09:19	Solid	GC 44	04/24/17	04/27/17 06:53	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	57	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-8	17-04-1498-4-A	04/19/17 09:21	Solid	GC 41	05/02/17	05/05/17 14:40	170502L04

Parameter	Result	RL	DF	Qualifiers
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Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	6.2	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	24-168	
2,4,5,6-Tetrachloro-m-Xylene	70	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-8	17-04-1498-4-A	04/19/17 09:21	Solid	GC 41	05/02/17	05/08/17 13:14	170502L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	140	25	5.00	
4,4'-DDE	150	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	82	24-168	
2,4,5,6-Tetrachloro-m-Xylene	71	25-145	

DP1-10	17-04-1498-5-A	04/19/17 09:23	Solid	GC 41	05/02/17	05/08/17 13:29	170502L04
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Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	25	5.00	
Alpha-BHC	ND	50	5.00	
Beta-BHC	ND	25	5.00	
Chlordane	ND	250	5.00	
Delta-BHC	ND	50	5.00	
Dieldrin	ND	25	5.00	
Endosulfan I	ND	25	5.00	
Endosulfan II	ND	25	5.00	
Endosulfan Sulfate	ND	25	5.00	
Endrin	ND	25	5.00	
Endrin Aldehyde	ND	25	5.00	
Endrin Ketone	ND	25	5.00	
Gamma-BHC	ND	25	5.00	
Heptachlor	ND	25	5.00	
Heptachlor Epoxide	ND	50	5.00	
Methoxychlor	ND	25	5.00	
Toxaphene	ND	500	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10	17-04-1498-5-A	04/19/17 09:23	Solid	GC 41	05/02/17	05/09/17 13:29	170502L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	2300	500	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	106	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10	17-04-1498-5-A	04/19/17 09:23	Solid	GC 41	05/02/17	05/09/17 13:44	170502L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	9500	2500	500	
4,4'-DDT	13000	2500	500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	174	24-168	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	128	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-15	17-04-1498-6-A	04/19/17 09:25	Solid	GC 41	05/13/17	05/16/17 12:22	170515L07

Comment(s): - Sample extracted outside recommended holding time.

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	ET
Alpha-BHC	ND	9.9	1.00	ET
Beta-BHC	ND	5.0	1.00	ET
Chlordane	ND	50	1.00	ET
4,4'-DDD	ND	5.0	1.00	ET
4,4'-DDE	ND	5.0	1.00	ET
4,4'-DDT	ND	5.0	1.00	ET
Delta-BHC	ND	9.9	1.00	ET
Dieldrin	ND	5.0	1.00	ET
Endosulfan I	ND	5.0	1.00	ET
Endosulfan II	ND	5.0	1.00	ET
Endosulfan Sulfate	ND	5.0	1.00	ET
Endrin	ND	5.0	1.00	ET
Endrin Aldehyde	ND	5.0	1.00	ET
Endrin Ketone	ND	5.0	1.00	ET
Gamma-BHC	ND	5.0	1.00	ET
Heptachlor	ND	5.0	1.00	ET
Heptachlor Epoxide	ND	9.9	1.00	ET
Methoxychlor	ND	5.0	1.00	ET
Toxaphene	ND	99	1.00	ET

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	24-168	
2,4,5,6-Tetrachloro-m-Xylene	81	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-1	17-04-1498-7-A	04/19/17 10:00	Solid	GC 44	04/24/17	04/26/17 06:10	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	ND	49	1.00	
4,4'-DDD	5.7	4.9	1.00	
4,4'-DDT	11	4.9	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	78	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

DP2-1	17-04-1498-7-A	04/19/17 10:00	Solid	GC 44	04/24/17	04/27/17 07:07	170424L03
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	110	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	83	24-168	
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-3	17-04-1498-8-A	04/19/17 10:02	Solid	GC 44	04/24/17	04/26/17 06:24	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	5.2	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	81	24-168	
2,4,5,6-Tetrachloro-m-Xylene	75	25-145	

DP2-3	17-04-1498-8-A	04/19/17 10:02	Solid	GC 44	04/24/17	04/27/17 07:21	170424L03
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	130	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	84	24-168	
2,4,5,6-Tetrachloro-m-Xylene	78	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-5	17-04-1498-9-A	04/19/17 10:04	Solid	GC 44	04/24/17	04/26/17 06:38	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	9.0	5.0	1.00	
4,4'-DDT	36	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	75	25-145	

DP2-5	17-04-1498-9-A	04/19/17 10:04	Solid	GC 44	04/24/17	04/27/17 07:35	170424L03
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	110	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-8	17-04-1498-10-A	04/19/17 10:06	Solid	GC 41	05/02/17	05/05/17 15:10	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	100	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-10	17-04-1498-11-A	04/19/17 10:08	Solid	GC 51	05/03/17	05/06/17 11:50	170503L08

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDT	5.8	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	75	24-168	
2,4,5,6-Tetrachloro-m-Xylene	50	25-145	

DP2-10	17-04-1498-11-A	04/19/17 10:08	Solid	GC 51	05/03/17	05/08/17 14:16	170503L08
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	150	100	20.0	
4,4'-DDE	560	100	20.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	71	24-168	
2,4,5,6-Tetrachloro-m-Xylene	60	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-15	17-04-1498-12-A	04/19/17 10:10	Solid	GC 41	05/02/17	05/05/17 15:41	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	24-168	
2,4,5,6-Tetrachloro-m-Xylene	62	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP3-1	17-04-1498-13-A	04/19/17 12:55	Solid	GC 44	04/24/17	04/26/17 06:53	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	83	24-168	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	

DP3-1	17-04-1498-13-A	04/19/17 12:55	Solid	GC 44	04/24/17	04/27/17 07:50	170424L03
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	66	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP3-3	17-04-1498-14-A	04/19/17 12:57	Solid	GC 44	04/24/17	04/26/17 07:07	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	12	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	83	24-168	
2,4,5,6-Tetrachloro-m-Xylene	70	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP3-5	17-04-1498-15-A	04/19/17 12:59	Solid	GC 44	04/24/17	04/26/17 07:21	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	28	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	81	24-168	
2,4,5,6-Tetrachloro-m-Xylene	70	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP3-8	17-04-1498-16-A	04/19/17 13:01	Solid	GC 41	05/02/17	05/09/17 10:44	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	18	5.0	1.00	
4,4'-DDT	17	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	80	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

DP3-8	17-04-1498-16-A	04/19/17 13:01	Solid	GC 41	05/02/17	05/08/17 13:45	170502L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	120	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	81	24-168	
2,4,5,6-Tetrachloro-m-Xylene	70	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP3-10	17-04-1498-17-A	04/19/17 13:03	Solid	GC 41	05/02/17	05/05/17 16:13	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	24	5.0	1.00	
4,4'-DDT	36	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	24-168	
2,4,5,6-Tetrachloro-m-Xylene	75	25-145	

DP3-10	17-04-1498-17-A	04/19/17 13:03	Solid	GC 41	05/02/17	05/09/17 11:44	170502L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	200	50	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	96	24-168	
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-1	17-04-1498-19-A	04/19/17 09:01	Solid	GC 44	04/24/17	04/26/17 07:35	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	125	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

DP4-1	17-04-1498-19-A	04/19/17 09:01	Solid	GC 44	04/24/17	04/27/17 06:10	170424L03
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	380	50	10.0	
4,4'-DDT	280	50	10.0	
Endrin Ketone	92	50	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	132	24-168	
2,4,5,6-Tetrachloro-m-Xylene	90	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

Page 20 of 66

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-1	17-04-1498-19-A	04/19/17 09:01	Solid	GC 44	04/24/17	04/27/17 14:25	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	74000	25000	5000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	0	24-168	1,2,6
2,4,5,6-Tetrachloro-m-Xylene	350	25-145	1,2,7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-3	17-04-1498-20-A	04/19/17 09:03	Solid	GC 44	04/24/17	04/26/17 07:50	170424L03

Parameter	Result	RL	DF	Qualifiers
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Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	8.1	5.0	1.00	
4,4'-DDT	10	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-3	17-04-1498-20-A	04/19/17 09:03	Solid	GC 44	04/24/17	04/27/17 14:40	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	50	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-5	17-04-1498-21-A	04/19/17 09:05	Solid	GC 44	04/24/17	04/26/17 08:04	170424L03

Parameter	Result	RL	DF	Qualifiers
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Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	22	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP4-8	17-04-1498-22-A	04/19/17 09:07	Solid	GC 41	05/02/17	05/05/17 16:28	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	23	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	24-168	
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	

DP4-8	17-04-1498-22-A	04/19/17 09:07	Solid	GC 41	05/02/17	05/08/17 14:15	170502L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	180	25	5.00	
4,4'-DDT	53	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	92	24-168	
2,4,5,6-Tetrachloro-m-Xylene	78	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

### Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-1	17-04-1498-25-A	04/19/17 10:45	Solid	GC 44	04/24/17	04/26/17 08:18	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	ND	49	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	6.5	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

DP5-1	17-04-1498-25-A	04/19/17 10:45	Solid	GC 44	04/24/17	04/27/17 11:49	170424L03
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	77	25	5.00	
4,4'-DDT	110	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	88	24-168	
2,4,5,6-Tetrachloro-m-Xylene	68	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Return to Contents



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-1	17-04-1498-25-A	04/19/17 10:45	Solid	GC 44	04/24/17	04/28/17 04:27	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	13000	2500	500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	75	24-168	
2,4,5,6-Tetrachloro-m-Xylene	155	25-145	1,2,7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-3	17-04-1498-26-A	04/19/17 10:47	Solid	GC 44	04/24/17	04/26/17 08:32	170424L03

Parameter	Result	RL	DF	Qualifiers
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Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	ND	49	1.00	
4,4'-DDD	20	4.9	1.00	
4,4'-DDT	27	4.9	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	88	24-168	
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-3	17-04-1498-26-A	04/19/17 10:47	Solid	GC 44	04/24/17	04/27/17 12:03	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	48	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	84	24-168	
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-5	17-04-1498-27-A	04/19/17 10:49	Solid	GC 44	04/24/17	04/27/17 12:18	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	25	5.00	
Alpha-BHC	ND	50	5.00	
Beta-BHC	ND	25	5.00	
Chlordane	ND	250	5.00	
4,4'-DDD	29	25	5.00	
4,4'-DDE	100	25	5.00	
Delta-BHC	ND	50	5.00	
Dieldrin	ND	25	5.00	
Endosulfan I	ND	25	5.00	
Endosulfan II	ND	25	5.00	
Endosulfan Sulfate	ND	25	5.00	
Endrin	ND	25	5.00	
Endrin Aldehyde	ND	25	5.00	
Endrin Ketone	ND	25	5.00	
Gamma-BHC	ND	25	5.00	
Heptachlor	ND	25	5.00	
Heptachlor Epoxide	ND	50	5.00	
Methoxychlor	ND	25	5.00	
Toxaphene	ND	500	5.00	

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	25	5.00	
Alpha-BHC	ND	50	5.00	
Beta-BHC	ND	25	5.00	
Chlordane	ND	250	5.00	
4,4'-DDD	29	25	5.00	
4,4'-DDE	100	25	5.00	
Delta-BHC	ND	50	5.00	
Dieldrin	ND	25	5.00	
Endosulfan I	ND	25	5.00	
Endosulfan II	ND	25	5.00	
Endosulfan Sulfate	ND	25	5.00	
Endrin	ND	25	5.00	
Endrin Aldehyde	ND	25	5.00	
Endrin Ketone	ND	25	5.00	
Gamma-BHC	ND	25	5.00	
Heptachlor	ND	25	5.00	
Heptachlor Epoxide	ND	50	5.00	
Methoxychlor	ND	25	5.00	
Toxaphene	ND	500	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	83	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-5	17-04-1498-27-A	04/19/17 10:49	Solid	GC 44	04/24/17	04/27/17 15:09	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDT	930	250	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	81	24-168	
2,4,5,6-Tetrachloro-m-Xylene	90	25-145	

DP5-8	17-04-1498-28-A	04/19/17 10:51	Solid	GC 41	05/02/17	05/05/17 16:43	170502L04
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Parameter	Result	RL	DF	Qualifiers
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Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	6.7	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	24-168	
2,4,5,6-Tetrachloro-m-Xylene	71	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP5-10	17-04-1498-29-A	04/19/17 10:53	Solid	GC 41	05/02/17	05/05/17 16:58	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	81	24-168	
2,4,5,6-Tetrachloro-m-Xylene	75	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP6-1	17-04-1498-31-A	04/19/17 13:50	Solid	GC 44	04/24/17	04/26/17 09:01	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	ND	49	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	20	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	105	24-168	
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	

DP6-1	17-04-1498-31-A	04/19/17 13:50	Solid	GC 44	04/24/17	04/27/17 12:32	170424L03
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDT	120	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	24-168	
2,4,5,6-Tetrachloro-m-Xylene	83	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP6-1	17-04-1498-31-A	04/19/17 13:50	Solid	GC 44	04/24/17	04/27/17 15:24	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	1100	490	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	295	24-168	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	202	25-145	1,2,7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP6-1	17-04-1498-31-A	04/19/17 13:50	Solid	GC 44	04/24/17	04/28/17 04:55	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	36000	25000	5000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	0	24-168	1,2,6
2,4,5,6-Tetrachloro-m-Xylene	300	25-145	1,2,7

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP6-3	17-04-1498-32-A	04/19/17 13:52	Solid	GC 44	04/24/17	04/26/17 09:15	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	8.9	5.0	1.00	
4,4'-DDT	16	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	82	24-168	
2,4,5,6-Tetrachloro-m-Xylene	64	25-145	

DP6-3	17-04-1498-32-A	04/19/17 13:52	Solid	GC 44	04/24/17	04/27/17 12:46	170424L03
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	100	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	137	24-168	
2,4,5,6-Tetrachloro-m-Xylene	68	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP6-5	17-04-1498-33-A	04/19/17 13:54	Solid	GC 44	04/24/17	04/26/17 09:29	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	7.0	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	24-168	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	

DP6-5	17-04-1498-33-A	04/19/17 13:54	Solid	GC 44	04/24/17	04/27/17 13:00	170424L03
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	62	25	5.00	
4,4'-DDT	120	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	104	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP6-8	17-04-1498-34-A	04/19/17 13:58	Solid	GC 41	05/02/17	05/08/17 14:30	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	25	5.00	
Alpha-BHC	ND	49	5.00	
Beta-BHC	ND	25	5.00	
Chlordane	ND	250	5.00	
4,4'-DDT	29	25	5.00	
Delta-BHC	ND	49	5.00	
Dieldrin	ND	25	5.00	
Endosulfan I	ND	25	5.00	
Endosulfan II	ND	25	5.00	
Endosulfan Sulfate	ND	25	5.00	
Endrin	ND	25	5.00	
Endrin Aldehyde	ND	25	5.00	
Endrin Ketone	ND	25	5.00	
Gamma-BHC	ND	25	5.00	
Heptachlor	ND	25	5.00	
Heptachlor Epoxide	ND	49	5.00	
Methoxychlor	ND	25	5.00	
Toxaphene	ND	490	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

DP6-8	17-04-1498-34-A	04/19/17 13:58	Solid	GC 41	05/02/17	05/09/17 11:59	170502L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	430	99	20.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	24-168	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP6-8	17-04-1498-34-A	04/19/17 13:58	Solid	GC 41	05/02/17	05/09/17 13:14	170502L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	780	490	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	139	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP7-1	17-04-1498-37-A	04/19/17 08:18	Solid	GC 44	04/24/17	04/26/17 11:43	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	34	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	7.9	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP7-1	17-04-1498-37-A	04/19/17 08:18	Solid	GC 44	04/24/17	04/27/17 13:28	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDT	52	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP7-1	17-04-1498-37-A	04/19/17 08:18	Solid	GC 44	04/24/17	04/28/17 05:10	170424L03

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	7900	2500	500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	24-168	
2,4,5,6-Tetrachloro-m-Xylene	170	25-145	1,2,7

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP7-3	17-04-1498-38-A	04/19/17 08:20	Solid	GC 44	04/24/17	04/26/17 11:58	170424L03

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	19	5.0	1.00	
4,4'-DDE	19	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	82	24-168	
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP7-5	17-04-1498-39-A	04/19/17 08:22	Solid	GC 44	04/24/17	04/26/17 12:57	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	36	5.0	1.00	
4,4'-DDT	17	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	24-168	
2,4,5,6-Tetrachloro-m-Xylene	83	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-1	17-04-1498-43-A	04/19/17 11:10	Solid	GC 44	04/24/17	04/26/17 13:12	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDT	25	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	

DP8-1	17-04-1498-43-A	04/19/17 11:10	Solid	GC 51	04/24/17	04/27/17 14:02	170424L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	82	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-1	17-04-1498-43-A	04/19/17 11:10	Solid	GC 51	04/24/17	04/28/17 05:13	170424L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	5200	2500	500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	122	24-168	
2,4,5,6-Tetrachloro-m-Xylene	134	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-3	17-04-1498-44-A	04/19/17 11:12	Solid	GC 44	04/24/17	04/26/17 13:26	170424L04

Parameter	Result	RL	DF	Qualifiers
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Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	15	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	24-168	
2,4,5,6-Tetrachloro-m-Xylene	75	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-3	17-04-1498-44-A	04/19/17 11:12	Solid	GC 51	04/24/17	04/27/17 14:16	170424L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	100	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	136	24-168	
2,4,5,6-Tetrachloro-m-Xylene	70	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-5	17-04-1498-45-A	04/19/17 11:14	Solid	GC 44	04/24/17	04/26/17 13:40	170424L04

Parameter	Result	RL	DF	Qualifiers
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Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	10	5.0	1.00	
4,4'-DDE	22	5.0	1.00	
4,4'-DDT	5.6	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-8	17-04-1498-46-A	04/19/17 11:16	Solid	GC 41	05/02/17	05/08/17 11:07	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDT	5.5	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

DP8-8	17-04-1498-46-A	04/19/17 11:16	Solid	GC 41	05/02/17	05/08/17 14:45	170502L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	77	25	5.00	
4,4'-DDE	110	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	82	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP9-1	17-04-1498-49-A	04/19/17 14:30	Solid	GC 44	04/24/17	04/26/17 13:54	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	8.6	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	24-168	
2,4,5,6-Tetrachloro-m-Xylene	81	25-145	

DP9-1	17-04-1498-49-A	04/19/17 14:30	Solid	GC 51	04/24/17	04/28/17 07:07	170424L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	360	50	10.0	
4,4'-DDT	170	50	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	107	24-168	
2,4,5,6-Tetrachloro-m-Xylene	88	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP9-3	17-04-1498-50-A	04/19/17 14:32	Solid	GC 44	04/24/17	04/26/17 16:08	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	19	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	96	24-168	
2,4,5,6-Tetrachloro-m-Xylene	85	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP9-5	17-04-1498-51-A	04/19/17 14:34	Solid	GC 44	04/24/17	04/26/17 16:22	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	7.2	5.0	1.00	
4,4'-DDT	13	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

DP9-5	17-04-1498-51-A	04/19/17 14:34	Solid	GC 51	04/24/17	04/27/17 14:45	170424L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	34	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	83	24-168	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP9-8	17-04-1498-52-A	04/19/17 14:36	Solid	GC 41	05/02/17	05/08/17 15:00	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	25	5.00	
Alpha-BHC	ND	49	5.00	
Beta-BHC	ND	25	5.00	
Chlordane	ND	250	5.00	
4,4'-DDT	55	25	5.00	
Delta-BHC	ND	49	5.00	
Dieldrin	ND	25	5.00	
Endosulfan I	ND	25	5.00	
Endosulfan II	ND	25	5.00	
Endosulfan Sulfate	ND	25	5.00	
Endrin	ND	25	5.00	
Endrin Aldehyde	ND	25	5.00	
Endrin Ketone	ND	25	5.00	
Gamma-BHC	ND	25	5.00	
Heptachlor	ND	25	5.00	
Heptachlor Epoxide	ND	49	5.00	
Methoxychlor	ND	25	5.00	
Toxaphene	ND	490	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	24-168	
2,4,5,6-Tetrachloro-m-Xylene	70	25-145	

DP9-8	17-04-1498-52-A	04/19/17 14:36	Solid	GC 41	05/02/17	05/09/17 15:37	170502L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	400	250	50.0	
4,4'-DDE	790	250	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	65	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

### Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP10-1	17-04-1498-55-A	04/19/17 07:30	Solid	GC 44	04/24/17	04/26/17 16:36	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	24-168	
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	

DP10-1	17-04-1498-55-A	04/19/17 07:30	Solid	GC 51	04/24/17	04/27/17 14:59	170424L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	68	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	92	24-168	
2,4,5,6-Tetrachloro-m-Xylene	82	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP10-3	17-04-1498-56-A	04/19/17 07:32	Solid	GC 44	04/24/17	04/26/17 16:51	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	8.5	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	94	24-168	
2,4,5,6-Tetrachloro-m-Xylene	85	25-145	

DP10-3	17-04-1498-56-A	04/19/17 07:32	Solid	GC 51	04/24/17	04/27/17 15:13	170424L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	130	25	5.00	
4,4'-DDT	60	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	24-168	
2,4,5,6-Tetrachloro-m-Xylene	81	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP10-5	17-04-1498-57-A	04/19/17 07:34	Solid	GC 44	04/24/17	04/26/17 17:05	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	ND	49	1.00	
4,4'-DDD	19	4.9	1.00	
4,4'-DDT	24	4.9	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	83	24-168	
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	

DP10-5	17-04-1498-57-A	04/19/17 07:34	Solid	GC 51	04/24/17	04/27/17 15:27	170424L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	43	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	79	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP10-8	17-04-1498-58-A	04/19/17 07:36	Solid	GC 41	05/02/17	05/08/17 11:37	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	5.3	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	88	24-168	
2,4,5,6-Tetrachloro-m-Xylene	56	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP11-1	17-04-1498-61-A	04/19/17 11:44	Solid	GC 44	04/24/17	04/26/17 17:19	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	23	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	78	25-145	

DP11-1	17-04-1498-61-A	04/19/17 11:44	Solid	GC 51	04/24/17	04/27/17 15:42	170424L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDT	62	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	82	24-168	
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP11-1	17-04-1498-61-A	04/19/17 11:44	Solid	GC 51	04/24/17	04/28/17 06:24	170424L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	3100	500	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	134	24-168	
2,4,5,6-Tetrachloro-m-Xylene	85	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP11-3	17-04-1498-62-A	04/19/17 11:50	Solid	GC 51	04/24/17	04/27/17 11:45	170424L04

Parameter	Result	RL	DF	Qualifiers
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Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	8.5	5.0	1.00	
4,4'-DDE	9.7	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	103	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP11-5	17-04-1498-63-A	04/19/17 11:48	Solid	GC 51	04/24/17	04/28/17 12:11	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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### Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-1	17-04-1498-67-A	04/19/17 12:22	Solid	GC 51	04/24/17	04/27/17 12:14	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	99	24-168	
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	

DP12-1	17-04-1498-67-A	04/19/17 12:22	Solid	GC 51	04/24/17	04/28/17 08:47	170424L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	90	50	10.0	
4,4'-DDT	260	50	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	24-168	
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-1	17-04-1498-67-A	04/19/17 12:22	Solid	GC 51	04/24/17	04/28/17 05:42	170424L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	6800	2500	500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	129	24-168	
2,4,5,6-Tetrachloro-m-Xylene	140	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-3	17-04-1498-68-A	04/19/17 12:24	Solid	GC 51	04/24/17	04/27/17 12:29	170424L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	8.9	5.0	1.00	
4,4'-DDT	6.9	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	8.9	5.0	1.00	
4,4'-DDT	6.9	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-3	17-04-1498-68-A	04/19/17 12:24	Solid	GC 51	04/24/17	04/28/17 08:04	170424L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	37	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	93	24-168	
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-5	17-04-1498-69-A	04/19/17 12:26	Solid	GC 51	04/24/17	04/27/17 12:43	170424L04

Parameter	Result	RL	DF	Qualifiers
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Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	7.3	5.0	1.00	
4,4'-DDE	16	5.0	1.00	
4,4'-DDT	6.2	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	86	24-168	
2,4,5,6-Tetrachloro-m-Xylene	70	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP12-8	17-04-1498-70-A	04/19/17 12:28	Solid	GC 41	05/02/17	05/08/17 11:52	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	93	24-168	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-8-00	17-04-1498-75-A	04/19/17 09:22	Solid	GC 41	05/02/17	05/08/17 12:07	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDT	6.4	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	95	24-168	
2,4,5,6-Tetrachloro-m-Xylene	65	25-145	

DP1-8-00	17-04-1498-75-A	04/19/17 09:22	Solid	GC 41	05/02/17	05/08/17 15:15	170502L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	80	25	5.00	
4,4'-DDE	99	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10-00	17-04-1498-76-A	04/19/17 09:24	Solid	GC 41	05/02/17	05/08/17 15:30	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	25	5.00	
Alpha-BHC	ND	50	5.00	
Beta-BHC	ND	25	5.00	
Chlordane	ND	250	5.00	
Delta-BHC	ND	50	5.00	
Dieldrin	ND	25	5.00	
Endosulfan I	ND	25	5.00	
Endosulfan II	ND	25	5.00	
Endosulfan Sulfate	ND	25	5.00	
Endrin	ND	25	5.00	
Endrin Aldehyde	ND	25	5.00	
Endrin Ketone	ND	25	5.00	
Gamma-BHC	ND	25	5.00	
Heptachlor	ND	25	5.00	
Heptachlor Epoxide	ND	50	5.00	
Methoxychlor	ND	25	5.00	
Toxaphene	ND	500	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	111	24-168	
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	

DP1-10-00	17-04-1498-76-A	04/19/17 09:24	Solid	GC 41	05/02/17	05/09/17 12:59	170502L04
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Parameter	Result	RL	DF	Qualifiers
4,4'-DDT	1100	500	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	164	24-168	
2,4,5,6-Tetrachloro-m-Xylene	93	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10-00	17-04-1498-76-A	04/19/17 09:24	Solid	GC 41	05/02/17	05/09/17 13:59	170502L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	11000	2500	500	
4,4'-DDE	12000	2500	500	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	161	24-168	
2,4,5,6-Tetrachloro-m-Xylene	148	25-145	1,2,7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP11-3-00	17-04-1498-77-A	04/19/17 11:51	Solid	GC 41	05/02/17	05/08/17 12:37	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	14	5.0	1.00	
4,4'-DDT	8.3	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	24-168	
2,4,5,6-Tetrachloro-m-Xylene	58	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP11-3-00	17-04-1498-77-A	04/19/17 11:51	Solid	GC 41	05/02/17	05/08/17 15:45	170502L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	76	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	84	24-168	
2,4,5,6-Tetrachloro-m-Xylene	65	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-8-00	17-04-1498-78-A	04/19/17 11:19	Solid	GC 41	05/02/17	05/08/17 12:52	170502L04

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	27	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	94	24-168	
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP8-8-00	17-04-1498-78-A	04/19/17 11:19	Solid	GC 41	05/02/17	05/09/17 10:59	170502L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDE	110	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	79	24-168	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-10-00	17-04-1498-79-A	04/19/17 10:09	Solid	GC 51	04/24/17	04/28/17 06:53	170424L04

Parameter	Result	RL	DF	Qualifiers
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Aldrin	ND	500	100	
Alpha-BHC	ND	990	100	
Beta-BHC	ND	500	100	
Chlordane	ND	5000	100	
4,4'-DDT	2900	500	100	
Delta-BHC	ND	990	100	
Dieldrin	ND	500	100	
Endosulfan I	ND	500	100	
Endosulfan II	ND	500	100	
Endosulfan Sulfate	ND	500	100	
Endrin	ND	500	100	
Endrin Aldehyde	ND	500	100	
Endrin Ketone	ND	500	100	
Gamma-BHC	ND	500	100	
Heptachlor	ND	500	100	
Heptachlor Epoxide	ND	990	100	
Methoxychlor	ND	500	100	
Toxaphene	ND	9900	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	214	24-168	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	101	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP2-10-00	17-04-1498-79-A	04/19/17 10:09	Solid	GC 51	04/24/17	04/28/17 09:44	170424L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	26000	5000	1000	
4,4'-DDE	19000	5000	1000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	218	24-168	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	101	25-145	

DRUM1	17-04-1498-80-A	04/19/17 15:15	Solid	GC 51	04/24/17	04/27/17 13:44	170424L04
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Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	4.9	1.00	
Alpha-BHC	ND	9.9	1.00	
Beta-BHC	ND	4.9	1.00	
Chlordane	ND	49	1.00	
4,4'-DDT	ND	4.9	1.00	
Delta-BHC	ND	9.9	1.00	
Dieldrin	ND	4.9	1.00	
Endosulfan I	ND	4.9	1.00	
Endosulfan II	ND	4.9	1.00	
Endosulfan Sulfate	ND	4.9	1.00	
Endrin	ND	4.9	1.00	
Endrin Aldehyde	ND	4.9	1.00	
Endrin Ketone	ND	4.9	1.00	
Gamma-BHC	ND	4.9	1.00	
Heptachlor	ND	4.9	1.00	
Heptachlor Epoxide	ND	9.9	1.00	
Methoxychlor	ND	4.9	1.00	
Toxaphene	ND	99	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DRUM1	17-04-1498-80-A	04/19/17 15:15	Solid	GC 51	04/24/17	04/28/17 09:16	170424L04

Parameter	Result	RL	DF	Qualifiers
4,4'-DDD	45	25	5.00	
4,4'-DDE	150	25	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	100	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

Method Blank	099-12-537-2679	N/A	Solid	GC 44	04/24/17	04/26/17 05:13	170424L03
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Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.





Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-537-2680</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 51</b>	<b>04/24/17</b>	<b>04/27/17 10:48</b>	<b>170424L04</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	86	24-168	
2,4,5,6-Tetrachloro-m-Xylene	81	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-537-2684</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 41</b>	<b>05/02/17</b>	<b>05/05/17 13:41</b>	<b>170502L04</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	80	24-168	
2,4,5,6-Tetrachloro-m-Xylene	82	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-537-2685</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 51</b>	<b>05/03/17</b>	<b>05/06/17 09:28</b>	<b>170503L08</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Decachlorobiphenyl	67	24-168	
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-537-2692</b>	<b>N/A</b>	<b>Solid</b>	<b>GC 41</b>	<b>05/15/17</b>	<b>05/16/17 11:08</b>	<b>170515L07</b>

Parameter	Result	RL	DF	Qualifiers
Aldrin	ND	5.0	1.00	
Alpha-BHC	ND	10	1.00	
Beta-BHC	ND	5.0	1.00	
Chlordane	ND	50	1.00	
4,4'-DDD	ND	5.0	1.00	
4,4'-DDE	ND	5.0	1.00	
4,4'-DDT	ND	5.0	1.00	
Delta-BHC	ND	10	1.00	
Dieldrin	ND	5.0	1.00	
Endosulfan I	ND	5.0	1.00	
Endosulfan II	ND	5.0	1.00	
Endosulfan Sulfate	ND	5.0	1.00	
Endrin	ND	5.0	1.00	
Endrin Aldehyde	ND	5.0	1.00	
Endrin Ketone	ND	5.0	1.00	
Gamma-BHC	ND	5.0	1.00	
Heptachlor	ND	5.0	1.00	
Heptachlor Epoxide	ND	10	1.00	
Methoxychlor	ND	5.0	1.00	
Toxaphene	ND	100	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	114	24-168	
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3510C  
Method: EPA 8081A  
Units: ug/L

Project: Carriage Crest Park (CCP)

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB04192017	17-04-1498-74-A	04/19/17 15:00	Aqueous	GC 41	04/24/17	04/26/17 08:32	170424L13A

Parameter	Result	RL	DF	Qualifiers
Alpha-BHC	ND	0.095	1.00	
Gamma-BHC	ND	0.095	1.00	
Beta-BHC	ND	0.095	1.00	
Heptachlor	ND	0.095	1.00	
Delta-BHC	ND	0.095	1.00	
Aldrin	ND	0.095	1.00	
Heptachlor Epoxide	ND	0.095	1.00	
Endosulfan I	ND	0.095	1.00	
Dieldrin	ND	0.095	1.00	
4,4'-DDE	ND	0.095	1.00	
Endrin	ND	0.095	1.00	
Endrin Aldehyde	ND	0.095	1.00	
4,4'-DDD	ND	0.095	1.00	
Endosulfan II	ND	0.095	1.00	
4,4'-DDT	ND	0.095	1.00	
Endosulfan Sulfate	ND	0.095	1.00	
Methoxychlor	ND	0.095	1.00	
Chlordane	ND	0.95	1.00	
Toxaphene	ND	1.9	1.00	
Endrin Ketone	ND	0.095	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
Decachlorobiphenyl	50	50-135		
2,4,5,6-Tetrachloro-m-Xylene	76	50-135		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3510C  
Method: EPA 8081A  
Units: ug/L

Project: Carriage Crest Park (CCP)

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>099-12-529-952</b>	<b>N/A</b>	<b>Aqueous</b>	<b>GC 41</b>	<b>04/24/17</b>	<b>04/26/17 08:17</b>	<b>170424L13A</b>

Parameter	Result	RL	DF	Qualifiers
Alpha-BHC	ND	0.10	1.00	
Gamma-BHC	ND	0.10	1.00	
Beta-BHC	ND	0.10	1.00	
Heptachlor	ND	0.10	1.00	
Delta-BHC	ND	0.10	1.00	
Aldrin	ND	0.10	1.00	
Heptachlor Epoxide	ND	0.10	1.00	
Endosulfan I	ND	0.10	1.00	
Dieldrin	ND	0.10	1.00	
4,4'-DDE	ND	0.10	1.00	
Endrin	ND	0.10	1.00	
Endrin Aldehyde	ND	0.10	1.00	
4,4'-DDD	ND	0.10	1.00	
Endosulfan II	ND	0.10	1.00	
4,4'-DDT	ND	0.10	1.00	
Endosulfan Sulfate	ND	0.10	1.00	
Methoxychlor	ND	0.10	1.00	
Chlordane	ND	1.0	1.00	
Toxaphene	ND	2.0	1.00	
Endrin Ketone	ND	0.10	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>	
Decachlorobiphenyl	84	50-135		
2,4,5,6-Tetrachloro-m-Xylene	76	50-135		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB04192017	17-04-1498-73-A	04/19/17 07:00	Aqueous	GC/MS V V	04/28/17	04/29/17 01:00	170428L026

Parameter	Result	RL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
1,1-Dichloropropene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Butanone	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
4-Chlorotoluene	ND	1.0	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
Carbon Disulfide	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Carriage Crest Park (CCP)

Page 2 of 4

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
Dibromochloromethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Ethylbenzene	ND	1.0	1.00	
Isopropylbenzene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
Naphthalene	ND	10	1.00	
Styrene	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
n-Butylbenzene	ND	1.0	1.00	
n-Propylbenzene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
tert-Butylbenzene	ND	1.0	1.00	
p/m-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	94	77-120	
Dibromofluoromethane	105	80-128	
1,2-Dichloroethane-d4	106	80-129	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-001-23010	N/A	Aqueous	GC/MS V V	04/28/17	04/28/17 15:30	170428L026

Parameter	Result	RL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
1,1-Dichloropropene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	
2-Butanone	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
4-Chlorotoluene	ND	1.0	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
Carbon Disulfide	ND	10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5030C  
Method: EPA 8260B  
Units: ug/L

Project: Carriage Crest Park (CCP)

Page 4 of 4

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
Dibromochloromethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
Ethylbenzene	ND	1.0	1.00	
Isopropylbenzene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
Naphthalene	ND	10	1.00	
Styrene	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
n-Butylbenzene	ND	1.0	1.00	
n-Propylbenzene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
tert-Butylbenzene	ND	1.0	1.00	
p/m-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	77-120	
Dibromofluoromethane	104	80-128	
1,2-Dichloroethane-d4	102	80-129	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B  
Units: ug/kg

Project: Carriage Crest Park (CCP)

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10	17-04-1498-5-C	04/19/17 09:23	Solid	GC/MS Q	04/19/17	05/03/17 12:18	170503L005

Comment(s): - Sample analysis requested after recommended holding time.

Parameter	Result	RL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.97	1.00	BU
1,1,1-Trichloroethane	ND	0.97	1.00	BU
1,1,2,2-Tetrachloroethane	ND	1.9	1.00	BU
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.7	1.00	BU
1,1,2-Trichloroethane	ND	0.97	1.00	BU
1,1-Dichloroethane	ND	0.97	1.00	BU
1,1-Dichloroethene	ND	0.97	1.00	BU
1,1-Dichloropropene	ND	1.9	1.00	BU
1,2,3-Trichlorobenzene	ND	1.9	1.00	BU
1,2,3-Trichloropropane	ND	1.9	1.00	BU
1,2,4-Trichlorobenzene	ND	1.9	1.00	BU
1,2,4-Trimethylbenzene	ND	1.9	1.00	BU
1,2-Dibromo-3-Chloropropane	ND	4.9	1.00	BU
1,2-Dibromoethane	ND	0.97	1.00	BU
1,2-Dichlorobenzene	ND	0.97	1.00	BU
1,2-Dichloroethane	ND	0.97	1.00	BU
1,2-Dichloropropane	ND	0.97	1.00	BU
1,3,5-Trimethylbenzene	ND	1.9	1.00	BU
1,3-Dichlorobenzene	ND	0.97	1.00	BU
1,3-Dichloropropane	ND	0.97	1.00	BU
1,4-Dichlorobenzene	ND	0.97	1.00	BU
2,2-Dichloropropane	ND	4.9	1.00	BU
2-Butanone	37	19	1.00	BU
2-Chlorotoluene	ND	0.97	1.00	BU
2-Hexanone	ND	19	1.00	BU
4-Chlorotoluene	ND	0.97	1.00	BU
4-Methyl-2-Pentanone	ND	19	1.00	BU
Benzene	ND	0.97	1.00	BU
Bromobenzene	ND	0.97	1.00	BU
Bromochloromethane	ND	1.9	1.00	BU
Bromodichloromethane	ND	0.97	1.00	BU
Bromoform	ND	4.9	1.00	BU
Bromomethane	ND	19	1.00	BU
Carbon Disulfide	ND	9.7	1.00	BU

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B  
Units: ug/kg

Project: Carriage Crest Park (CCP)

Page 2 of 6

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon Tetrachloride	ND	0.97	1.00	BU
Chlorobenzene	2.1	0.97	1.00	BU
Chloroethane	2.0	1.9	1.00	BU
Chloroform	ND	0.97	1.00	BU
Chloromethane	ND	19	1.00	BU
Dibromochloromethane	ND	1.9	1.00	BU
Dibromomethane	ND	0.97	1.00	BU
Dichlorodifluoromethane	ND	1.9	1.00	BU
Ethylbenzene	ND	0.97	1.00	BU
Isopropylbenzene	ND	0.97	1.00	BU
Methylene Chloride	ND	9.7	1.00	BU
Naphthalene	ND	9.7	1.00	BU
Styrene	ND	0.97	1.00	BU
Tetrachloroethene	ND	0.97	1.00	BU
Toluene	ND	0.97	1.00	BU
t-1,2-Dichloroethene	ND	0.97	1.00	BU
Trichloroethene	ND	1.9	1.00	BU
Trichlorofluoromethane	ND	9.7	1.00	BU
Vinyl Acetate	ND	9.7	1.00	BU
Vinyl Chloride	ND	0.97	1.00	BU
c-1,3-Dichloropropene	ND	0.97	1.00	BU
c-1,2-Dichloroethene	ND	0.97	1.00	BU
n-Butylbenzene	ND	0.97	1.00	BU
n-Propylbenzene	ND	1.9	1.00	BU
o-Xylene	ND	0.97	1.00	BU
p-Isopropyltoluene	ND	0.97	1.00	BU
sec-Butylbenzene	ND	0.97	1.00	BU
t-1,3-Dichloropropene	ND	1.9	1.00	BU
tert-Butylbenzene	ND	0.97	1.00	BU
p/m-Xylene	ND	1.9	1.00	BU
Methyl-t-Butyl Ether (MTBE)	ND	1.9	1.00	BU

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	88	80-120	
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	112	71-155	
Toluene-d8	90	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DP1-10	17-04-1498-5-E	04/19/17 09:23	Solid	GC/MS Q	04/19/17	05/03/17 13:41	170503L006

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	5100	50.0	BU

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	91	79-133	
1,2-Dichloroethane-d4	91	71-155	
Toluene-d8	95	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B  
Units: ug/kg

Project: Carriage Crest Park (CCP)

Page 4 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	095-01-025-28775	N/A	Solid	GC/MS Q	05/03/17	05/03/17 11:23	170503L005

Parameter	Result	RL	DF	Qualifiers
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
1,1-Dichloropropene	ND	2.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	
2-Butanone	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
4-Chlorotoluene	ND	1.0	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B  
Units: ug/kg

Project: Carriage Crest Park (CCP)

Page 5 of 6

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
Dibromochloromethane	ND	2.0	1.00	
Dibromomethane	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
Isopropylbenzene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
Naphthalene	ND	10	1.00	
Styrene	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
n-Butylbenzene	ND	1.0	1.00	
n-Propylbenzene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	96	79-133	
1,2-Dichloroethane-d4	93	71-155	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 5035
	Method:	EPA 8260B
	Units:	ug/kg

Project: Carriage Crest Park (CCP) Page 6 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>Method Blank</b>	<b>095-01-025-28776</b>	<b>N/A</b>	<b>Solid</b>	<b>GC/MS Q</b>	<b>05/03/17</b>	<b>05/03/17 11:50</b>	<b>170503L006</b>

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Acetone	ND	5000	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	95	79-133	
1,2-Dichloroethane-d4	93	71-155	
Toluene-d8	96	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
DRUM1	17-04-1498-80-D	04/19/17 15:15	Solid	GC/MS Q	04/19/17	04/21/17 12:17	170421L010

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	38	1.00	
Benzene	ND	0.77	1.00	
Bromobenzene	ND	0.77	1.00	
Bromochloromethane	ND	1.5	1.00	
Bromodichloromethane	ND	0.77	1.00	
Bromoform	ND	3.8	1.00	
Bromomethane	ND	15	1.00	
2-Butanone	ND	15	1.00	
n-Butylbenzene	ND	0.77	1.00	
sec-Butylbenzene	ND	0.77	1.00	
tert-Butylbenzene	ND	0.77	1.00	
Carbon Disulfide	ND	7.7	1.00	
Carbon Tetrachloride	ND	0.77	1.00	
Chlorobenzene	ND	0.77	1.00	
Chloroethane	ND	1.5	1.00	
Chloroform	ND	0.77	1.00	
Chloromethane	ND	15	1.00	
2-Chlorotoluene	ND	0.77	1.00	
4-Chlorotoluene	ND	0.77	1.00	
Dibromochloromethane	ND	1.5	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.8	1.00	
1,2-Dibromoethane	ND	0.77	1.00	
Dibromomethane	ND	0.77	1.00	
1,2-Dichlorobenzene	ND	0.77	1.00	
1,3-Dichlorobenzene	ND	0.77	1.00	
1,4-Dichlorobenzene	ND	0.77	1.00	
Dichlorodifluoromethane	ND	1.5	1.00	
1,1-Dichloroethane	ND	0.77	1.00	
1,2-Dichloroethane	ND	0.77	1.00	
1,1-Dichloroethene	ND	0.77	1.00	
c-1,2-Dichloroethene	ND	0.77	1.00	
t-1,2-Dichloroethene	ND	0.77	1.00	
1,2-Dichloropropane	ND	0.77	1.00	
1,3-Dichloropropane	ND	0.77	1.00	
2,2-Dichloropropane	ND	3.8	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B  
Units: ug/kg

Project: Carriage Crest Park (CCP)

Page 2 of 4

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.5	1.00	
c-1,3-Dichloropropene	ND	0.77	1.00	
t-1,3-Dichloropropene	ND	1.5	1.00	
Ethylbenzene	ND	0.77	1.00	
2-Hexanone	ND	15	1.00	
Isopropylbenzene	ND	0.77	1.00	
p-Isopropyltoluene	ND	0.77	1.00	
Methylene Chloride	ND	7.7	1.00	
4-Methyl-2-Pentanone	ND	15	1.00	
Naphthalene	ND	7.7	1.00	
n-Propylbenzene	ND	1.5	1.00	
Styrene	ND	0.77	1.00	
1,1,1,2-Tetrachloroethane	ND	0.77	1.00	
1,1,2,2-Tetrachloroethane	ND	1.5	1.00	
Tetrachloroethene	ND	0.77	1.00	
Toluene	ND	0.77	1.00	
1,2,3-Trichlorobenzene	ND	1.5	1.00	
1,2,4-Trichlorobenzene	ND	1.5	1.00	
1,1,1-Trichloroethane	ND	0.77	1.00	
1,1,2-Trichloroethane	ND	0.77	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.7	1.00	
Trichloroethene	ND	1.5	1.00	
Trichlorofluoromethane	ND	7.7	1.00	
1,2,3-Trichloropropane	ND	1.5	1.00	
1,2,4-Trimethylbenzene	ND	1.5	1.00	
1,3,5-Trimethylbenzene	ND	1.5	1.00	
Vinyl Acetate	ND	7.7	1.00	
Vinyl Chloride	ND	0.77	1.00	
p/m-Xylene	ND	1.5	1.00	
o-Xylene	ND	0.77	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.5	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	107	71-155	
Toluene-d8	97	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B  
Units: ug/kg

Project: Carriage Crest Park (CCP)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	095-01-025-28738	N/A	Solid	GC/MS Q	04/21/17	04/21/17 11:22	170421L010

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	50	1.00	
Benzene	ND	1.0	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	2.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	5.0	1.00	
Bromomethane	ND	20	1.00	
2-Butanone	ND	20	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	1.0	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	2.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	20	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	2.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	2.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	1.0	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	5.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Analytical Report

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B  
Units: ug/kg

Project: Carriage Crest Park (CCP)

Page 4 of 4

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	2.0	1.00	
c-1,3-Dichloropropene	ND	1.0	1.00	
t-1,3-Dichloropropene	ND	2.0	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	20	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	20	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	2.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	2.0	1.00	
1,2,4-Trichlorobenzene	ND	2.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
Trichloroethene	ND	2.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	2.0	1.00	
1,2,4-Trimethylbenzene	ND	2.0	1.00	
1,3,5-Trimethylbenzene	ND	2.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	1.0	1.00	
p/m-Xylene	ND	2.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	98	79-133	
1,2-Dichloroethane-d4	97	71-155	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3550B  
Method: EPA 8015B (M)

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0707-3	Sample	Solid	GC 45	05/10/17	05/10/17 16:26	170510S04
17-05-0707-3	Matrix Spike	Solid	GC 45	05/10/17	05/10/17 15:19	170510S04
17-05-0707-3	Matrix Spike Duplicate	Solid	GC 45	05/10/17	05/10/17 15:41	170510S04

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	426.3	107	429.6	107	64-130	1	0-15	


  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3550B  
Method: EPA 8015B (M)

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1456-10	Sample	Solid	GC 48	04/25/17	04/25/17 18:08	170425S07
17-04-1456-10	Matrix Spike	Solid	GC 48	04/25/17	04/25/17 17:26	170425S07
17-04-1456-10	Matrix Spike Duplicate	Solid	GC 48	04/25/17	04/25/17 17:48	170425S07

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	115.8	400.0	454.9	85	433.2	79	64-130	5	0-15	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Carriage Crest Park (CCP)		Page 3 of 26

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0040-1	Sample	Aqueous	GC 22	05/02/17	05/02/17 15:08	170502S013
17-05-0040-1	Matrix Spike	Aqueous	GC 22	05/02/17	05/02/17 15:41	170502S013
17-05-0040-1	Matrix Spike Duplicate	Aqueous	GC 22	05/02/17	05/02/17 16:14	170502S013

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	2000	1850	92	2059	103	68-122	11	0-18	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
DP1-1	Sample	Solid	ICP 7300	04/26/17	04/27/17 13:05	170426S11
DP1-1	Matrix Spike	Solid	ICP 7300	04/26/17	04/27/17 13:02	170426S11
DP1-1	Matrix Spike Duplicate	Solid	ICP 7300	04/26/17	04/27/17 13:03	170426S11

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	9.260	37	9.553	38	50-115	3	0-20	3
Arsenic	6.600	25.00	34.98	114	36.32	119	75-125	4	0-20	
Barium	262.7	25.00	353.6	4X	364.4	4X	75-125	4X	0-20	Q
Beryllium	0.6102	25.00	27.18	106	28.06	110	75-125	3	0-20	
Cadmium	5.752	25.00	31.51	103	32.72	108	75-125	4	0-20	
Chromium	90.21	25.00	122.9	131	126.6	145	75-125	3	0-20	3
Cobalt	9.330	25.00	33.90	98	35.17	103	75-125	4	0-20	
Copper	88.93	25.00	126.2	149	130.1	165	75-125	3	0-20	3
Lead	105.6	25.00	140.2	4X	144.6	4X	75-125	4X	0-20	Q
Molybdenum	0.6702	25.00	23.32	91	24.37	95	75-125	4	0-20	
Nickel	31.97	25.00	57.31	101	59.64	111	75-125	4	0-20	
Selenium	ND	25.00	22.35	89	23.31	93	75-125	4	0-20	
Silver	1.584	12.50	5.662	33	5.918	35	75-125	4	0-20	3
Thallium	ND	25.00	24.92	100	25.20	101	75-125	1	0-20	
Vanadium	38.05	25.00	61.30	93	63.08	100	75-125	3	0-20	
Zinc	272.6	25.00	312.8	4X	330.1	4X	75-125	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
DP8-1	Sample	Solid	ICP 7300	04/26/17	04/27/17 13:26	170426S12				
DP8-1	Matrix Spike	Solid	ICP 7300	04/26/17	04/27/17 13:03	170426S12				
DP8-1	Matrix Spike Duplicate	Solid	ICP 7300	04/26/17	04/27/17 13:04	170426S12				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	9.705	39	8.206	33	50-115	17	0-20	3
Arsenic	16.81	25.00	42.41	102	37.59	83	75-125	12	0-20	
Barium	624.0	25.00	496.5	4X	480.5	4X	75-125	4X	0-20	Q
Beryllium	0.9440	25.00	28.67	111	27.76	107	75-125	3	0-20	
Cadmium	17.27	25.00	39.16	88	36.35	76	75-125	7	0-20	
Chromium	266.3	25.00	203.6	4X	196.6	4X	75-125	4X	0-20	Q
Cobalt	10.12	25.00	37.91	111	35.36	101	75-125	7	0-20	
Copper	225.7	25.00	183.8	4X	177.9	4X	75-125	4X	0-20	Q
Lead	328.0	25.00	244.8	4X	228.7	4X	75-125	4X	0-20	Q
Molybdenum	1.327	25.00	24.91	94	23.13	87	75-125	7	0-20	
Nickel	57.92	25.00	77.60	79	72.15	57	75-125	7	0-20	3
Selenium	ND	25.00	24.10	96	22.00	88	75-125	9	0-20	
Silver	5.738	12.50	7.571	15	7.222	12	75-125	5	0-20	3
Thallium	ND	25.00	25.21	101	23.18	93	75-125	8	0-20	
Vanadium	37.27	25.00	68.65	126	66.38	116	75-125	3	0-20	3
Zinc	687.3	25.00	520.3	4X	500.9	4X	75-125	4X	0-20	Q

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
DP1-8	Sample	Solid	ICP 7300	05/04/17	05/04/17 15:47	170504S01				
DP1-8	Matrix Spike	Solid	ICP 7300	05/04/17	05/04/17 15:47	170504S01				
DP1-8	Matrix Spike Duplicate	Solid	ICP 7300	05/04/17	05/04/17 15:48	170504S01				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	6.561	26	7.428	30	50-115	12	0-20	3
Arsenic	5.326	25.00	32.26	108	29.06	95	75-125	10	0-20	
Barium	185.3	25.00	187.0	4X	198.8	4X	75-125	4X	0-20	Q
Beryllium	0.5868	25.00	26.06	102	26.02	102	75-125	0	0-20	
Cadmium	0.6473	25.00	25.38	99	25.12	98	75-125	1	0-20	
Chromium	27.98	25.00	54.64	107	48.04	80	75-125	13	0-20	
Cobalt	12.81	25.00	38.98	105	35.87	92	75-125	8	0-20	
Copper	32.98	25.00	55.91	92	51.01	72	75-125	9	0-20	3
Lead	28.37	25.00	51.92	94	64.25	144	75-125	21	0-20	3,4
Molybdenum	ND	25.00	22.00	88	21.77	87	75-125	1	0-20	
Nickel	20.77	25.00	44.66	96	42.20	86	75-125	6	0-20	
Selenium	ND	25.00	22.33	89	23.50	94	75-125	5	0-20	
Silver	ND	12.50	12.64	101	12.60	101	75-125	0	0-20	
Thallium	0.8648	25.00	23.65	91	23.46	90	75-125	1	0-20	
Vanadium	50.33	25.00	73.40	92	67.34	68	75-125	9	0-20	3
Zinc	91.53	25.00	116.6	100	124.5	132	75-125	7	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0390-1	Sample	Solid	ICP 7300	05/08/17	05/08/17 15:12	170508S04
17-05-0390-1	Matrix Spike	Solid	ICP 7300	05/08/17	05/08/17 15:13	170508S04
17-05-0390-1	Matrix Spike Duplicate	Solid	ICP 7300	05/08/17	05/08/17 15:14	170508S04

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	8.630	35	8.718	35	50-115	1	0-20	3
Arsenic	3.607	25.00	30.05	106	28.92	101	75-125	4	0-20	
Barium	69.31	25.00	98.25	116	93.57	97	75-125	5	0-20	
Beryllium	0.3503	25.00	27.79	110	26.98	107	75-125	3	0-20	
Cadmium	2.498	25.00	29.84	109	28.50	104	75-125	5	0-20	
Chromium	11.84	25.00	38.23	106	36.44	98	75-125	5	0-20	
Cobalt	6.755	25.00	34.61	111	31.99	101	75-125	8	0-20	
Copper	96.70	25.00	53.48	0	51.16	0	75-125	4	0-20	3
Lead	10.18	25.00	41.29	124	39.17	116	75-125	5	0-20	
Molybdenum	1.170	25.00	26.27	100	25.45	97	75-125	3	0-20	
Nickel	21.14	25.00	46.08	100	43.75	90	75-125	5	0-20	
Selenium	ND	25.00	25.87	103	25.16	101	75-125	3	0-20	
Silver	ND	12.50	13.19	106	13.02	104	75-125	1	0-20	
Thallium	ND	25.00	26.76	107	25.32	101	75-125	6	0-20	
Vanadium	27.94	25.00	53.63	103	50.88	92	75-125	5	0-20	
Zinc	86.67	25.00	124.6	152	116.2	118	75-125	7	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-05-0916-1	Sample	Solid	ICP 7300	05/12/17	05/15/17 12:50	170512S08				
17-05-0916-1	Matrix Spike	Solid	ICP 7300	05/12/17	05/15/17 12:51	170512S08				
17-05-0916-1	Matrix Spike Duplicate	Solid	ICP 7300	05/12/17	05/15/17 12:54	170512S08				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	4.251	17	3.003	12	50-115	34	0-20	3,4
Arsenic	ND	25.00	31.68	127	27.23	109	75-125	15	0-20	3
Barium	144.0	25.00	170.3	4X	131.3	4X	75-125	4X	0-20	Q
Beryllium	0.3251	25.00	30.43	120	26.38	104	75-125	14	0-20	
Cadmium	ND	25.00	28.57	114	25.07	100	75-125	13	0-20	
Chromium	14.92	25.00	42.78	111	36.75	87	75-125	15	0-20	
Cobalt	9.190	25.00	36.23	108	30.99	87	75-125	16	0-20	
Copper	20.15	25.00	49.86	119	41.33	85	75-125	19	0-20	
Lead	3.723	25.00	32.60	116	28.22	98	75-125	14	0-20	
Molybdenum	0.2724	25.00	26.56	105	23.56	93	75-125	12	0-20	
Nickel	11.74	25.00	39.37	111	33.46	87	75-125	16	0-20	
Selenium	ND	25.00	26.17	105	25.88	104	75-125	1	0-20	
Silver	ND	12.50	15.41	123	13.32	107	75-125	15	0-20	
Thallium	ND	25.00	29.31	117	24.46	98	75-125	18	0-20	
Vanadium	34.71	25.00	62.33	110	52.39	71	75-125	17	0-20	3
Zinc	46.35	25.00	71.77	102	59.11	51	75-125	19	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3010A Total  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-04-1623-1	Sample	Aqueous	ICP 7300	04/25/17	04/26/17 17:44	170425SA9				
17-04-1623-1	Matrix Spike	Aqueous	ICP 7300	04/25/17	04/26/17 17:45	170425SA9				
17-04-1623-1	Matrix Spike Duplicate	Aqueous	ICP 7300	04/25/17	04/26/17 17:46	170425SA9				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	0.5000	0.5166	103	0.5454	109	72-132	5	0-10	
Arsenic	0.07649	0.5000	0.6106	107	0.6303	111	80-140	3	0-11	
Barium	0.02037	0.5000	0.5255	101	0.5499	106	87-123	5	0-6	
Beryllium	ND	0.5000	0.5192	104	0.5407	108	89-119	4	0-8	
Cadmium	ND	0.5000	0.4976	100	0.5186	104	82-124	4	0-7	
Chromium	ND	0.5000	0.4985	100	0.5249	105	86-122	5	0-8	
Cobalt	ND	0.5000	0.4722	94	0.4840	97	83-125	2	0-7	
Copper	ND	0.5000	0.4911	98	0.5094	102	78-126	4	0-7	
Lead	ND	0.5000	0.4951	99	0.5072	101	84-120	2	0-7	
Molybdenum	ND	0.5000	0.5533	111	0.5685	114	78-126	3	0-7	
Nickel	ND	0.5000	0.4757	95	0.4910	98	84-120	3	0-7	
Selenium	ND	0.5000	0.4819	96	0.5015	100	79-127	4	0-9	
Silver	ND	0.2500	0.2574	103	0.2738	110	86-128	6	0-7	
Thallium	ND	0.5000	0.4805	96	0.4985	100	79-121	4	0-8	
Vanadium	ND	0.5000	0.5005	100	0.5177	104	88-118	3	0-7	
Zinc	0.03523	0.5000	0.5318	99	0.7667	146	89-131	36	0-8	3,4

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: T22.11.5. All  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-04-1683-3	Sample	Solid	ICP 7300	05/04/17	05/09/17 10:43	170508SA9				
17-04-1683-3	Matrix Spike	Solid	ICP 7300	05/04/17	05/09/17 10:44	170508SA9				
17-04-1683-3	Matrix Spike Duplicate	Solid	ICP 7300	05/04/17	05/09/17 10:45	170508SA9				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Cadmium	ND	5.000	4.733	95	4.723	94	75-125	0	0-20	
Chromium	14.06	5.000	18.77	94	18.75	94	75-125	0	0-20	
Copper	ND	5.000	4.935	99	4.876	98	75-125	1	0-20	
Lead	0.6002	5.000	5.293	94	5.260	93	75-125	1	0-20	


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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: T22.11.5. All  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-1011-1	Sample	Aqueous	ICP 7300	05/15/17	05/15/17 15:12	170515SA5
17-05-1011-1	Matrix Spike	Aqueous	ICP 7300	05/15/17	05/15/17 15:13	170515SA5
17-05-1011-1	Matrix Spike Duplicate	Aqueous	ICP 7300	05/15/17	05/15/17 15:15	170515SA5

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Cadmium	ND	5.000	4.440	89	4.278	86	75-125	4	0-20	
Chromium	ND	5.000	4.361	87	4.198	84	75-125	4	0-20	
Copper	ND	5.000	4.425	89	4.254	85	75-125	4	0-20	
Lead	ND	5.000	4.615	92	4.370	87	75-125	5	0-20	


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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 1311  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1773-1	Sample	Solid	ICP 7300	05/04/17	05/08/17 11:34	170505SA5
17-04-1773-1	Matrix Spike	Solid	ICP 7300	05/04/17	05/08/17 11:35	170505SA5
17-04-1773-1	Matrix Spike Duplicate	Solid	ICP 7300	05/04/17	05/08/17 11:36	170505SA5

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	ND	5.000	5.131	103	5.223	104	86-122	2	0-8	
Lead	0.3392	5.000	5.496	103	5.614	106	84-120	2	0-7	

  
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RPD: Relative Percent Difference. CL: Control Limits





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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 1311  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0904-1	Sample	Solid	ICP 7300	05/11/17	05/12/17 13:40	170512SA2
17-05-0904-1	Matrix Spike	Solid	ICP 7300	05/11/17	05/12/17 13:43	170512SA2
17-05-0904-1	Matrix Spike Duplicate	Solid	ICP 7300	05/11/17	05/12/17 13:44	170512SA2

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	ND	5.000	4.961	99	5.133	103	86-122	3	0-8	
Lead	ND	5.000	5.079	102	5.360	107	84-120	5	0-7	

  
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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7470A Filt.  
Method: EPA 7470A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-1452-4	Sample	Aqueous	Mercury 08	04/25/17	04/25/17 16:23	170425SA2
17-04-1452-4	Matrix Spike	Aqueous	Mercury 08	04/25/17	04/25/17 16:30	170425SA2
17-04-1452-4	Matrix Spike Duplicate	Aqueous	Mercury 08	04/25/17	04/25/17 16:32	170425SA2

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.01000	0.008214	82	0.007298	73	55-133	12	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
DP1-1	Sample	Solid	Mercury 08	04/27/17	04/27/17 13:20	170427S01
DP1-1	Matrix Spike	Solid	Mercury 08	04/27/17	04/27/17 13:22	170427S01
DP1-1	Matrix Spike Duplicate	Solid	Mercury 08	04/27/17	04/27/17 13:24	170427S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.5524	0.8350	1.270	86	1.395	101	71-137	9	0-14	

  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
DP8-1	Sample	Solid	Mercury 08	04/27/17	04/27/17 14:24	170427S02				
DP8-1	Matrix Spike	Solid	Mercury 08	04/27/17	04/27/17 20:21	170427S02				
DP8-1	Matrix Spike Duplicate	Solid	Mercury 08	04/27/17	04/27/17 20:24	170427S02				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	1.063	0.8350	1.962	108	2.008	113	71-137	2	0-14	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
DP1-8	Sample	Solid	Mercury 08	05/05/17	05/05/17 16:16	170505S02
DP1-8	Matrix Spike	Solid	Mercury 08	05/05/17	05/05/17 16:19	170505S02
DP1-8	Matrix Spike Duplicate	Solid	Mercury 08	05/05/17	05/05/17 16:21	170505S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7799	93	0.7853	94	71-137	1	0-14	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0390-1	Sample	Solid	Mercury 08	05/09/17	05/09/17 14:10	170509S01
17-05-0390-1	Matrix Spike	Solid	Mercury 08	05/09/17	05/09/17 14:13	170509S01
17-05-0390-1	Matrix Spike Duplicate	Solid	Mercury 08	05/09/17	05/09/17 14:15	170509S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.6852	82	0.6793	81	71-137	1	0-14	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0876-1	Sample	Solid	Mercury 08	05/15/17	05/15/17 19:08	170515S03
17-05-0876-1	Matrix Spike	Solid	Mercury 08	05/15/17	05/15/17 19:15	170515S03
17-05-0876-1	Matrix Spike Duplicate	Solid	Mercury 08	05/15/17	05/15/17 19:17	170515S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.8377	100	0.9351	112	71-137	11	0-14	

  
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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
DP2-8	Sample	Solid	GC 41	05/02/17	05/05/17 15:10	170502S04
DP2-8	Matrix Spike	Solid	GC 41	05/02/17	05/05/17 14:10	170502S04
DP2-8	Matrix Spike Duplicate	Solid	GC 41	05/02/17	05/05/17 14:25	170502S04

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	24.34	97	23.40	94	50-135	4	0-25	
Alpha-BHC	ND	25.00	23.96	96	24.26	97	50-135	1	0-25	
Beta-BHC	ND	25.00	24.89	100	23.22	93	50-135	7	0-25	
4,4'-DDD	ND	25.00	28.57	114	25.29	101	50-135	12	0-25	
4,4'-DDE	ND	25.00	28.81	115	26.49	106	50-135	8	0-25	
4,4'-DDT	ND	25.00	29.39	118	26.62	106	50-135	10	0-25	
Delta-BHC	ND	25.00	26.38	106	24.44	98	50-135	8	0-25	
Dieldrin	ND	25.00	27.71	111	24.99	100	50-135	10	0-25	
Endosulfan I	ND	25.00	26.59	106	24.43	98	50-135	8	0-25	
Endosulfan II	ND	25.00	27.54	110	24.24	97	50-135	13	0-25	
Endosulfan Sulfate	ND	25.00	26.47	106	24.30	97	50-135	9	0-25	
Endrin	ND	25.00	32.10	128	29.01	116	50-135	10	0-25	
Endrin Aldehyde	ND	25.00	24.76	99	18.98	76	50-135	26	0-25	4
Gamma-BHC	ND	25.00	24.82	99	24.55	98	50-135	1	0-25	
Heptachlor	ND	25.00	25.45	102	25.03	100	50-135	2	0-25	
Heptachlor Epoxide	ND	25.00	25.22	101	29.63	119	50-135	16	0-25	
Methoxychlor	ND	25.00	27.97	112	24.41	98	50-135	14	0-25	

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RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0878-1	Sample	Solid	GC 41	05/15/17	05/16/17 13:22	170515S07
17-05-0878-1	Matrix Spike	Solid	GC 41	05/15/17	05/16/17 15:20	170515S07
17-05-0878-1	Matrix Spike Duplicate	Solid	GC 41	05/15/17	05/16/17 15:35	170515S07

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	25.22	101	25.06	100	50-135	1	0-25	
Alpha-BHC	ND	25.00	23.09	92	22.50	90	50-135	3	0-25	
Beta-BHC	ND	25.00	18.48	74	20.09	80	50-135	8	0-25	
4,4'-DDD	ND	25.00	38.53	154	47.02	188	50-135	20	0-25	3
4,4'-DDE	9.796	25.00	40.26	122	39.99	121	50-135	1	0-25	
4,4'-DDT	7.234	25.00	39.81	130	25.65	74	50-135	43	0-25	4
Delta-BHC	ND	25.00	19.40	78	19.96	80	50-135	3	0-25	
Dieldrin	5.400	25.00	34.46	116	34.79	118	50-135	1	0-25	
Endosulfan I	ND	25.00	28.40	114	28.53	114	50-135	0	0-25	
Endosulfan II	ND	25.00	28.66	115	30.12	120	50-135	5	0-25	
Endosulfan Sulfate	ND	25.00	26.75	107	26.87	107	50-135	0	0-25	
Endrin	ND	25.00	37.68	151	37.24	149	50-135	1	0-25	3
Endrin Aldehyde	ND	25.00	24.32	97	26.83	107	50-135	10	0-25	
Gamma-BHC	ND	25.00	22.31	89	21.73	87	50-135	3	0-25	
Heptachlor	ND	25.00	27.80	111	24.98	100	50-135	11	0-25	
Heptachlor Epoxide	ND	25.00	28.88	116	30.29	121	50-135	5	0-25	
Methoxychlor	ND	25.00	36.64	147	27.22	109	50-135	29	0-25	3,4

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
DP2-3	Sample	Solid	GC 44	04/24/17	04/26/17 06:24	170424S03
DP2-3	Matrix Spike	Solid	GC 44	04/24/17	04/26/17 12:12	170424S03
DP2-3	Matrix Spike Duplicate	Solid	GC 44	04/24/17	04/26/17 12:26	170424S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	26.70	107	25.01	100	50-135	7	0-25	
Alpha-BHC	ND	25.00	26.34	105	25.84	103	50-135	2	0-25	
Beta-BHC	ND	25.00	24.54	98	24.43	98	50-135	0	0-25	
4,4'-DDD	ND	25.00	39.66	159	48.91	196	50-135	21	0-25	3
4,4'-DDE	130.1	25.00	242.3	449	203.9	295	50-135	17	0-25	3
4,4'-DDT	5.208	25.00	45.86	163	28.62	94	50-135	46	0-25	3,4
Delta-BHC	ND	25.00	27.72	111	27.58	110	50-135	0	0-25	
Dieldrin	ND	25.00	28.04	112	27.88	112	50-135	1	0-25	
Endosulfan I	ND	25.00	29.76	119	29.13	117	50-135	2	0-25	
Endosulfan II	ND	25.00	28.46	114	28.43	114	50-135	0	0-25	
Endosulfan Sulfate	ND	25.00	27.72	111	28.12	112	50-135	1	0-25	
Endrin	ND	25.00	29.96	120	29.48	118	50-135	2	0-25	
Endrin Aldehyde	ND	25.00	26.55	106	25.48	102	50-135	4	0-25	
Gamma-BHC	ND	25.00	26.58	106	26.26	105	50-135	1	0-25	
Heptachlor	ND	25.00	27.24	109	25.92	104	50-135	5	0-25	
Heptachlor Epoxide	ND	25.00	38.62	154	37.80	151	50-135	2	0-25	3
Methoxychlor	ND	25.00	31.81	127	25.98	104	50-135	20	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
DP2-10-00	Sample	Solid	GC 51	04/24/17	04/28/17 09:44	170424S04
DP2-10-00	Matrix Spike	Solid	GC 51	04/24/17	04/27/17 11:16	170424S04
DP2-10-00	Matrix Spike Duplicate	Solid	GC 51	04/24/17	04/27/17 11:30	170424S04

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	33.99	136	30.95	124	50-135	9	0-25	3
Alpha-BHC	ND	25.00	18.62	74	18.67	75	50-135	0	0-25	
Beta-BHC	ND	25.00	17.41	70	17.91	72	50-135	3	0-25	
4,4'-DDD	26450	25.00	1335	0	1243	0	50-135	7	0-25	3
4,4'-DDE	19150	25.00	1035	0	996.4	0	50-135	4	0-25	3
4,4'-DDT	2893	25.00	1162	0	966.0	0	50-135	18	0-25	3
Delta-BHC	ND	25.00	21.37	85	20.51	82	50-135	4	0-25	
Dieldrin	ND	25.00	68.96	276	57.66	231	50-135	18	0-25	3
Endosulfan I	ND	25.00	554.7	2219	462.7	1851	50-135	18	0-25	3
Endosulfan II	ND	25.00	88.22	353	67.45	270	50-135	27	0-25	3,4
Endosulfan Sulfate	ND	25.00	23.77	95	21.94	88	50-135	8	0-25	
Endrin	ND	25.00	18.02	72	11.71	47	50-135	42	0-25	3,4
Endrin Aldehyde	ND	25.00	33.68	135	25.77	103	50-135	27	0-25	4
Gamma-BHC	ND	25.00	23.67	95	21.90	88	50-135	8	0-25	
Heptachlor	ND	25.00	27.77	111	25.59	102	50-135	8	0-25	
Heptachlor Epoxide	ND	25.00	926.7	3707	93.25	373	50-135	163	0-25	3,4
Methoxychlor	ND	25.00	535.6	2142	433.8	1735	50-135	21	0-25	3

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RPD: Relative Percent Difference. CL: Control Limits



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## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-05-0120-5	Sample	Solid	GC 51	05/03/17	05/06/17 12:33	170803S08
17-05-0120-5	Matrix Spike	Solid	GC 51	05/03/17	05/06/17 09:42	170803S08
17-05-0120-5	Matrix Spike Duplicate	Solid	GC 51	05/03/17	05/06/17 09:56	170803S08

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	25.00	13.16	53	18.06	72	50-135	31	0-25	4
Alpha-BHC	ND	25.00	13.61	54	18.69	75	50-135	31	0-25	4
Beta-BHC	ND	25.00	13.18	53	18.44	74	50-135	33	0-25	4
4,4'-DDD	ND	25.00	19.15	77	25.72	103	50-135	29	0-25	4
4,4'-DDE	7.054	25.00	21.31	57	26.69	79	50-135	22	0-25	
4,4'-DDT	ND	25.00	27.19	109	28.59	114	50-135	5	0-25	
Delta-BHC	ND	25.00	13.83	55	19.73	79	50-135	35	0-25	4
Dieldrin	ND	25.00	17.82	71	23.03	92	50-135	25	0-25	
Endosulfan I	ND	25.00	15.09	60	20.12	80	50-135	29	0-25	4
Endosulfan II	ND	25.00	14.60	58	20.67	83	50-135	34	0-25	4
Endosulfan Sulfate	ND	25.00	14.51	58	19.94	80	50-135	32	0-25	4
Endrin	ND	25.00	17.40	70	23.54	94	50-135	30	0-25	4
Endrin Aldehyde	ND	25.00	12.87	51	18.34	73	50-135	35	0-25	4
Gamma-BHC	ND	25.00	14.46	58	19.41	78	50-135	29	0-25	4
Heptachlor	ND	25.00	14.03	56	19.23	77	50-135	31	0-25	4
Heptachlor Epoxide	ND	25.00	17.49	70	21.75	87	50-135	22	0-25	
Methoxychlor	ND	25.00	22.01	88	24.42	98	50-135	10	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-04-2075-3	Sample	Aqueous	GC/MS V V	04/28/17	04/28/17 15:56	170428S012
17-04-2075-3	Matrix Spike	Aqueous	GC/MS V V	04/28/17	04/28/17 18:34	170428S012
17-04-2075-3	Matrix Spike Duplicate	Aqueous	GC/MS V V	04/28/17	04/28/17 19:23	170428S012

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1,1,2-Tetrachloroethane	ND	50.00	54.07	108	55.00	110	75-139	2	0-20	
1,1,1-Trichloroethane	ND	50.00	49.92	100	50.55	101	75-136	1	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	45.91	92	46.55	93	61-145	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	52.34	105	53.19	106	42-168	2	0-22	
1,1,2-Trichloroethane	ND	50.00	46.57	93	47.34	95	75-125	2	0-20	
1,1-Dichloroethane	ND	50.00	48.65	97	49.63	99	73-139	2	0-20	
1,1-Dichloroethene	ND	50.00	50.82	102	51.75	103	61-145	2	0-20	
1,1-Dichloropropene	ND	50.00	49.62	99	50.74	101	75-135	2	0-20	
1,2,3-Trichlorobenzene	ND	50.00	52.58	105	54.35	109	73-133	3	0-20	
1,2,3-Trichloropropane	ND	50.00	50.23	100	50.80	102	75-127	1	0-20	
1,2,4-Trichlorobenzene	ND	50.00	56.22	112	57.52	115	71-137	2	0-20	
1,2,4-Trimethylbenzene	ND	50.00	53.58	107	53.69	107	75-133	0	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	51.62	103	54.24	108	64-142	5	0-20	
1,2-Dibromoethane	ND	50.00	49.95	100	51.15	102	75-129	2	0-20	
1,2-Dichlorobenzene	ND	50.00	50.56	101	51.22	102	75-125	1	0-20	
1,2-Dichloroethane	ND	50.00	47.15	94	45.26	91	75-125	4	0-20	
1,2-Dichloropropane	ND	50.00	51.47	103	50.23	100	75-127	2	0-20	
1,3,5-Trimethylbenzene	ND	50.00	53.49	107	54.51	109	75-135	2	0-20	
1,3-Dichlorobenzene	ND	50.00	51.07	102	51.43	103	75-125	1	0-20	
1,3-Dichloropropane	ND	50.00	48.13	96	48.89	98	75-125	2	0-20	
1,4-Dichlorobenzene	ND	50.00	50.62	101	51.20	102	75-125	1	0-20	
2,2-Dichloropropane	ND	50.00	56.06	112	54.94	110	24-180	2	0-20	
2-Butanone	ND	50.00	50.39	101	52.30	105	37-157	4	0-20	
2-Chlorotoluene	ND	50.00	52.38	105	52.51	105	75-128	0	0-20	
2-Hexanone	ND	50.00	53.32	107	56.25	113	47-161	5	0-20	
4-Chlorotoluene	ND	50.00	51.24	102	51.83	104	75-125	1	0-20	
4-Methyl-2-Pentanone	ND	50.00	55.02	110	55.02	110	66-138	0	0-20	
Acetone	ND	50.00	49.23	98	51.81	104	34-166	5	0-33	
Benzene	ND	50.00	49.18	98	48.53	97	75-125	1	0-20	
Bromobenzene	ND	50.00	52.66	105	52.96	106	75-125	1	0-20	
Bromochloromethane	ND	50.00	49.61	99	50.17	100	75-125	1	0-20	
Bromodichloromethane	ND	50.00	49.27	99	47.98	96	75-134	3	0-20	
Bromoform	ND	50.00	52.12	104	53.04	106	74-134	2	0-20	
Bromomethane	ND	50.00	34.58	69	41.74	83	20-168	19	0-40	
Carbon Disulfide	ND	50.00	47.45	95	49.00	98	50-152	3	0-27	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Spike/Spike Duplicate

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Carriage Crest Park (CCP)

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<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Carbon Tetrachloride	ND	50.00	54.44	109	55.74	111	70-154	2	0-20	
Chlorobenzene	ND	50.00	50.90	102	51.41	103	75-125	1	0-20	
Chloroethane	ND	50.00	51.37	103	52.08	104	41-167	1	0-26	
Chloroform	ND	50.00	46.41	93	47.31	95	75-127	2	0-20	
Chloromethane	ND	50.00	39.98	80	41.72	83	41-149	4	0-20	
Dibromochloromethane	ND	50.00	51.54	103	51.90	104	75-131	1	0-20	
Dibromomethane	ND	50.00	47.20	94	46.14	92	75-125	2	0-20	
Dichlorodifluoromethane	ND	50.00	51.26	103	51.68	103	25-157	1	0-26	
Ethylbenzene	ND	50.00	52.33	105	53.05	106	75-129	1	0-20	
Isopropylbenzene	ND	50.00	54.33	109	54.87	110	75-135	1	0-20	
Methylene Chloride	ND	50.00	49.68	99	50.66	101	63-141	2	0-20	
Naphthalene	ND	50.00	58.15	116	58.79	118	59-143	1	0-20	
Styrene	ND	50.00	54.43	109	54.94	110	70-142	1	0-28	
Tetrachloroethene	ND	50.00	50.44	101	52.87	106	47-143	5	0-20	
Toluene	ND	50.00	51.57	103	50.33	101	75-125	2	0-20	
t-1,2-Dichloroethene	ND	50.00	50.43	101	51.71	103	64-142	2	0-20	
Trichloroethene	ND	50.00	50.79	102	49.84	100	67-139	2	0-20	
Trichlorofluoromethane	ND	50.00	50.25	100	49.41	99	59-155	2	0-20	
Vinyl Acetate	ND	50.00	52.51	105	53.44	107	54-180	2	0-25	
Vinyl Chloride	ND	50.00	47.45	95	48.86	98	51-153	3	0-20	
c-1,3-Dichloropropene	ND	50.00	52.51	105	50.72	101	75-137	3	0-20	
c-1,2-Dichloroethene	ND	50.00	48.52	97	49.44	99	75-125	2	0-20	
n-Butylbenzene	ND	50.00	52.73	105	54.15	108	73-145	3	0-20	
n-Propylbenzene	ND	50.00	52.50	105	52.78	106	75-133	1	0-20	
o-Xylene	ND	50.00	52.65	105	53.16	106	75-134	1	0-20	
p-Isopropyltoluene	ND	50.00	53.35	107	54.34	109	75-136	2	0-20	
sec-Butylbenzene	ND	50.00	52.86	106	53.45	107	75-135	1	0-20	
t-1,3-Dichloropropene	ND	50.00	55.27	111	56.16	112	74-146	2	0-20	
tert-Butylbenzene	ND	50.00	53.03	106	53.51	107	75-136	1	0-20	
p/m-Xylene	ND	100.0	105.7	106	106.5	106	75-133	1	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	51.31	103	51.91	104	64-136	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - PDS/PDSD

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
17-05-0390-1	Sample	Solid	ICP 7300	05/08/17 00:00	05/08/17 15:12	170508S04
17-05-0390-1	PDS	Solid	ICP 7300	05/08/17 00:00	05/09/17 19:51	170508S04
17-05-0390-1	PDSD	Solid	ICP 7300	05/08/17 00:00	05/09/17 19:51	170508S04

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	24.72	99	22.90	92	75-125	8	0-20	
Arsenic	3.607	25.00	28.74	101	26.76	93	75-125	7	0-20	
Barium	69.31	25.00	95.28	104	96.08	107	75-125	1	0-20	
Beryllium	0.3503	25.00	24.90	98	25.03	99	75-125	1	0-20	
Cadmium	2.498	25.00	27.01	98	26.30	95	75-125	3	0-20	
Chromium	11.84	25.00	36.55	99	36.79	100	75-125	1	0-20	
Cobalt	6.755	25.00	31.85	100	31.08	97	75-125	2	0-20	
Copper	96.70	25.00	123.4	107	123.8	108	75-125	0	0-20	
Lead	10.18	25.00	35.08	100	34.25	96	75-125	2	0-20	
Molybdenum	1.170	25.00	25.37	97	24.89	95	75-125	2	0-20	
Nickel	21.14	25.00	45.38	97	44.44	93	75-125	2	0-20	
Selenium	ND	25.00	24.20	97	22.27	89	75-125	8	0-20	
Silver	ND	12.50	11.76	94	11.86	95	75-125	1	0-20	
Thallium	ND	25.00	23.17	93	23.44	94	75-125	1	0-20	
Vanadium	27.94	25.00	52.80	99	52.90	100	75-125	0	0-20	
Zinc	86.67	25.00	107.1	82	108.5	87	75-125	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - PDS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: T22.11.5. All  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
17-04-1683-3	Sample	Solid	ICP 7300	05/04/17 00:00	05/09/17 10:43	170508SA9
17-04-1683-3	PDS	Solid	ICP 7300	05/04/17 00:00	05/09/17 10:46	170508SA9

Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Cadmium	ND	5.000	4.868	97	75-125	
Chromium	14.06	5.000	19.10	101	75-125	
Copper	ND	5.000	5.096	102	75-125	
Lead	0.6002	5.000	5.495	98	75-125	

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - PDS

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 1311
	Method:	EPA 6010B
Project: Carriage Crest Park (CCP)		Page 3 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
17-04-1773-1	Sample	Solid	ICP 7300	05/04/17 00:00	05/08/17 11:34	170505SA5
17-04-1773-1	PDS	Solid	ICP 7300	05/04/17 00:00	05/08/17 11:37	170505SA5
Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Chromium	ND	5.000	5.104	102	75-125	
Lead	0.3392	5.000	5.344	100	75-125	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - PDS/PDSD

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 1311  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number				
17-05-0904-1	Sample	Solid	ICP 7300	05/11/17 00:00	05/12/17 13:40	170512SA2				
17-05-0904-1	PDS	Solid	ICP 7300	05/11/17 00:00	05/15/17 15:08	170512SA2				
17-05-0904-1	PDSD	Solid	ICP 7300	05/11/17 00:00	05/15/17 15:09	170512SA2				
Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	PDSD Conc.	PDSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Chromium	ND	5.000	4.975	99	4.923	98	75-125	1	0-20	
Lead	ND	5.000	5.030	101	5.030	101	75-125	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: Carriage Crest Park (CCP)		Page 1 of 32

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-422-3058</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 45</b>	<b>05/10/17</b>	<b>05/10/17 14:55</b>	<b>170510B04A</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	425.6	106	75-123	

  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 3550B
	Method:	EPA 8015B (M)
Project: Carriage Crest Park (CCP)		Page 2 of 32

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-422-3021</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 48</b>	<b>04/25/17</b>	<b>04/25/17 16:44</b>	<b>170425B07C</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Diesel		400.0	354.2	89	75-123	


  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)
Project: Carriage Crest Park (CCP)		Page 3 of 32

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-15-704-1721</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC 22</b>	<b>05/02/17</b>	<b>05/02/17 13:03</b>	<b>170502L030</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
TPH as Gasoline		2000	1891	95	78-120	

  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 5035
	Method:	EPA 8015B (M)
Project: Carriage Crest Park (CCP)		Page 4 of 32

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-285-6347	LCS	Solid	GC 56	05/03/17	05/03/17 13:31	170503L035			
099-12-285-6347	LCSD	Solid	GC 56	05/03/17	05/03/17 14:03	170503L035			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2.000	2.031	102	2.001	100	55-139	2	0-18	

  
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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8015B (M)

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-12-285-6342	LCS	Solid	GC 57	04/26/17	04/26/17 11:05	170426L054			
099-12-285-6342	LCSD	Solid	GC 57	04/26/17	04/26/17 11:37	170426L054			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	2.000	2.067	103	2.006	100	55-139	3	0-18	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>097-01-002-24752</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>04/26/17</b>	<b>04/27/17 17:34</b>	<b>170426L11</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Antimony		25.00	24.36	97	80-120	73-127	
Arsenic		25.00	22.48	90	80-120	73-127	
Barium		25.00	25.77	103	80-120	73-127	
Beryllium		25.00	23.57	94	80-120	73-127	
Cadmium		25.00	24.83	99	80-120	73-127	
Chromium		25.00	25.12	100	80-120	73-127	
Cobalt		25.00	25.37	101	80-120	73-127	
Copper		25.00	25.11	100	80-120	73-127	
Lead		25.00	25.03	100	80-120	73-127	
Molybdenum		25.00	23.44	94	80-120	73-127	
Nickel		25.00	25.25	101	80-120	73-127	
Selenium		25.00	22.12	88	80-120	73-127	
Silver		12.50	12.14	97	80-120	73-127	
Thallium		25.00	23.56	94	80-120	73-127	
Vanadium		25.00	24.21	97	80-120	73-127	
Zinc		25.00	25.23	101	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>097-01-002-24753</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>04/26/17</b>	<b>04/27/17 17:33</b>	<b>170426L12</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Antimony		25.00	25.18	101	80-120	73-127	
Arsenic		25.00	23.66	95	80-120	73-127	
Barium		25.00	25.60	102	80-120	73-127	
Beryllium		25.00	24.51	98	80-120	73-127	
Cadmium		25.00	24.46	98	80-120	73-127	
Chromium		25.00	24.88	100	80-120	73-127	
Cobalt		25.00	25.08	100	80-120	73-127	
Copper		25.00	24.92	100	80-120	73-127	
Lead		25.00	25.99	104	80-120	73-127	
Molybdenum		25.00	24.14	97	80-120	73-127	
Nickel		25.00	24.89	100	80-120	73-127	
Selenium		25.00	22.82	91	80-120	73-127	
Silver		12.50	11.94	96	80-120	73-127	
Thallium		25.00	24.39	98	80-120	73-127	
Vanadium		25.00	24.03	96	80-120	73-127	
Zinc		25.00	24.84	99	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>097-01-002-24805</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>05/04/17</b>	<b>05/04/17 15:46</b>	<b>170504L01</b>
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	23.63	95	80-120	73-127	
Arsenic	25.00	22.85	91	80-120	73-127	
Barium	25.00	25.12	100	80-120	73-127	
Beryllium	25.00	23.48	94	80-120	73-127	
Cadmium	25.00	24.73	99	80-120	73-127	
Chromium	25.00	24.67	99	80-120	73-127	
Cobalt	25.00	25.42	102	80-120	73-127	
Copper	25.00	24.59	98	80-120	73-127	
Lead	25.00	25.35	101	80-120	73-127	
Molybdenum	25.00	24.54	98	80-120	73-127	
Nickel	25.00	24.36	97	80-120	73-127	
Selenium	25.00	22.91	92	80-120	73-127	
Silver	12.50	11.71	94	80-120	73-127	
Thallium	25.00	23.71	95	80-120	73-127	
Vanadium	25.00	24.01	96	80-120	73-127	
Zinc	25.00	24.29	97	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>097-01-002-24818</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>05/08/17</b>	<b>05/08/17 15:02</b>	<b>170508L04</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Antimony		25.00	23.14	93	80-120	73-127	
Arsenic		25.00	23.50	94	80-120	73-127	
Barium		25.00	25.60	102	80-120	73-127	
Beryllium		25.00	23.52	94	80-120	73-127	
Cadmium		25.00	26.04	104	80-120	73-127	
Chromium		25.00	26.13	105	80-120	73-127	
Cobalt		25.00	26.13	105	80-120	73-127	
Copper		25.00	25.82	103	80-120	73-127	
Lead		25.00	26.24	105	80-120	73-127	
Molybdenum		25.00	24.29	97	80-120	73-127	
Nickel		25.00	26.80	107	80-120	73-127	
Selenium		25.00	23.66	95	80-120	73-127	
Silver		12.50	12.09	97	80-120	73-127	
Thallium		25.00	24.84	99	80-120	73-127	
Vanadium		25.00	24.97	100	80-120	73-127	
Zinc		25.00	26.38	106	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3050B  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>097-01-002-24852</b>	<b>LCS</b>	<b>Solid</b>	<b>ICP 7300</b>	<b>05/12/17</b>	<b>05/15/17 12:17</b>	<b>170512L08</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Antimony		25.00	23.64	95	80-120	73-127	
Arsenic		25.00	23.79	95	80-120	73-127	
Barium		25.00	25.27	101	80-120	73-127	
Beryllium		25.00	24.07	96	80-120	73-127	
Cadmium		25.00	24.99	100	80-120	73-127	
Chromium		25.00	24.66	99	80-120	73-127	
Cobalt		25.00	24.50	98	80-120	73-127	
Copper		25.00	24.73	99	80-120	73-127	
Lead		25.00	25.44	102	80-120	73-127	
Molybdenum		25.00	24.41	98	80-120	73-127	
Nickel		25.00	25.54	102	80-120	73-127	
Selenium		25.00	23.75	95	80-120	73-127	
Silver		12.50	12.00	96	80-120	73-127	
Thallium		25.00	24.98	100	80-120	73-127	
Vanadium		25.00	23.73	95	80-120	73-127	
Zinc		25.00	25.01	100	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3010A Total  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>097-01-003-16431</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP 7300</b>	<b>04/25/17</b>	<b>04/26/17 16:03</b>	<b>170425LA9</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Antimony		0.5000	0.4949	99	80-120	73-127	
Arsenic		0.5000	0.4773	95	80-120	73-127	
Barium		0.5000	0.5218	104	80-120	73-127	
Beryllium		0.5000	0.4782	96	80-120	73-127	
Cadmium		0.5000	0.4870	97	80-120	73-127	
Chromium		0.5000	0.4957	99	80-120	73-127	
Cobalt		0.5000	0.5017	100	80-120	73-127	
Copper		0.5000	0.4945	99	80-120	73-127	
Lead		0.5000	0.5075	101	80-120	73-127	
Molybdenum		0.5000	0.5332	107	80-120	73-127	
Nickel		0.5000	0.5097	102	80-120	73-127	
Selenium		0.5000	0.4739	95	80-120	73-127	
Silver		0.2500	0.2430	97	80-120	73-127	
Thallium		0.5000	0.4996	100	80-120	73-127	
Vanadium		0.5000	0.4712	94	80-120	73-127	
Zinc		0.5000	0.4928	99	80-120	73-127	

Total number of LCS compounds: 16

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: T22.11.5. All  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>097-05-006-9049</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP 7300</b>	<b>05/04/17</b>	<b>05/09/17 10:40</b>	<b>170508LA9</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Cadmium		5.000	4.942	99	80-120	
Chromium		5.000	4.882	98	80-120	
Copper		5.000	4.977	100	80-120	
Lead		5.000	4.976	100	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: T22.11.5. All  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>097-05-006-9060</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP 7300</b>	<b>05/11/17</b>	<b>05/15/17 15:11</b>	<b>170515LA5</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Cadmium		5.000	5.179	104	80-120	
Chromium		5.000	5.024	100	80-120	
Copper		5.000	5.195	104	80-120	
Lead		5.000	5.162	103	80-120	


  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 1311  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-021-2293</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP 7300</b>	<b>05/04/17</b>	<b>05/08/17 11:33</b>	<b>170505LA5</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		5.000	5.326	107	80-120	
Lead		5.000	5.520	110	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 1311  
Method: EPA 6010B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-14-021-2302</b>	<b>LCS</b>	<b>Aqueous</b>	<b>ICP 7300</b>	<b>05/11/17</b>	<b>05/12/17 13:39</b>	<b>170512LA2</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Chromium		5.000	5.246	105	80-120	
Lead		5.000	5.444	109	80-120	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 7470A Total
	Method:	EPA 7470A
Project: Carriage Crest Park (CCP)		Page 16 of 32

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-04-008-8187</b>	<b>LCS</b>	<b>Aqueous</b>	<b>Mercury 08</b>	<b>04/25/17</b>	<b>04/25/17 16:21</b>	<b>170425LA2</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.01000	0.009894	99	80-120	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-272-2977</b>	<b>LCS</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>04/27/17</b>	<b>04/27/17 13:18</b>	<b>170427L01</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.7905	95	85-121	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-272-2978</b>	<b>LCS</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>04/27/17</b>	<b>04/27/17 14:21</b>	<b>170427L02</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.7896	95	85-121	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.	Date Received:	04/20/17
3475 East Foothill Blvd., Suite 300	Work Order:	17-04-1498
Pasadena, CA 91107-6024	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: Carriage Crest Park (CCP)		Page 19 of 32

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-272-2995</b>	<b>LCS</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>05/05/17</b>	<b>05/05/17 16:14</b>	<b>170505L02</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.7091	85	85-121	


  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-272-3000</b>	<b>LCS</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>05/09/17</b>	<b>05/09/17 15:51</b>	<b>170509L01</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.7306	87	85-121	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 7471A Total  
Method: EPA 7471A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
<b>099-16-272-3017</b>	<b>LCS</b>	<b>Solid</b>	<b>Mercury 08</b>	<b>05/15/17</b>	<b>05/15/17 19:06</b>	<b>170515L03</b>
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.8611	103	85-121	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-537-2684</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 41</b>	<b>05/02/17</b>	<b>05/05/17 13:55</b>	<b>170502L04</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		25.00	24.30	97	50-135	36-149	
Alpha-BHC		25.00	26.20	105	50-135	36-149	
Beta-BHC		25.00	24.75	99	50-135	36-149	
4,4'-DDD		25.00	25.86	103	50-135	36-149	
4,4'-DDE		25.00	25.89	104	50-135	36-149	
4,4'-DDT		25.00	25.18	101	50-135	36-149	
Delta-BHC		25.00	26.30	105	50-135	36-149	
Dieldrin		25.00	25.90	104	50-135	36-149	
Endosulfan I		25.00	26.14	105	50-135	36-149	
Endosulfan II		25.00	26.36	105	50-135	36-149	
Endosulfan Sulfate		25.00	24.77	99	50-135	36-149	
Endrin		25.00	27.00	108	50-135	36-149	
Endrin Aldehyde		25.00	25.11	100	50-135	36-149	
Gamma-BHC		25.00	26.37	105	50-135	36-149	
Heptachlor		25.00	26.23	105	50-135	36-149	
Heptachlor Epoxide		25.00	24.98	100	50-135	36-149	
Methoxychlor		25.00	24.17	97	50-135	36-149	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-537-2692</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 41</b>	<b>05/15/17</b>	<b>05/16/17 10:53</b>	<b>170515L07</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		25.00	28.14	113	50-135	36-149	
Alpha-BHC		25.00	29.88	120	50-135	36-149	
Beta-BHC		25.00	28.65	115	50-135	36-149	
4,4'-DDD		25.00	30.75	123	50-135	36-149	
4,4'-DDE		25.00	30.15	121	50-135	36-149	
4,4'-DDT		25.00	30.23	121	50-135	36-149	
Delta-BHC		25.00	30.24	121	50-135	36-149	
Dieldrin		25.00	30.64	123	50-135	36-149	
Endosulfan I		25.00	30.94	124	50-135	36-149	
Endosulfan II		25.00	30.50	122	50-135	36-149	
Endosulfan Sulfate		25.00	29.98	120	50-135	36-149	
Endrin		25.00	29.15	117	50-135	36-149	
Endrin Aldehyde		25.00	29.46	118	50-135	36-149	
Gamma-BHC		25.00	30.19	121	50-135	36-149	
Heptachlor		25.00	29.84	119	50-135	36-149	
Heptachlor Epoxide		25.00	29.35	117	50-135	36-149	
Methoxychlor		25.00	28.22	113	50-135	36-149	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-537-2679</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 44</b>	<b>04/24/17</b>	<b>04/26/17 09:43</b>	<b>170424L03</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		25.00	28.08	112	50-135	36-149	
Alpha-BHC		25.00	30.88	124	50-135	36-149	
Beta-BHC		25.00	28.62	114	50-135	36-149	
4,4'-DDD		25.00	32.22	129	50-135	36-149	
4,4'-DDE		25.00	31.22	125	50-135	36-149	
4,4'-DDT		25.00	29.16	117	50-135	36-149	
Delta-BHC		25.00	31.76	127	50-135	36-149	
Dieldrin		25.00	31.23	125	50-135	36-149	
Endosulfan I		25.00	31.51	126	50-135	36-149	
Endosulfan II		25.00	31.39	126	50-135	36-149	
Endosulfan Sulfate		25.00	29.94	120	50-135	36-149	
Endrin		25.00	22.14	89	50-135	36-149	
Endrin Aldehyde		25.00	35.16	141	50-135	36-149	ME
Gamma-BHC		25.00	30.98	124	50-135	36-149	
Heptachlor		25.00	31.10	124	50-135	36-149	
Heptachlor Epoxide		25.00	30.10	120	50-135	36-149	
Methoxychlor		25.00	27.36	109	50-135	36-149	

Total number of LCS compounds: 17

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-537-2680</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 51</b>	<b>04/24/17</b>	<b>04/27/17 11:02</b>	<b>170424L04</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		25.00	23.07	92	50-135	36-149	
Alpha-BHC		25.00	25.74	103	50-135	36-149	
Beta-BHC		25.00	24.29	97	50-135	36-149	
4,4'-DDD		25.00	27.54	110	50-135	36-149	
4,4'-DDE		25.00	25.67	103	50-135	36-149	
4,4'-DDT		25.00	26.55	106	50-135	36-149	
Delta-BHC		25.00	26.39	106	50-135	36-149	
Dieldrin		25.00	26.67	107	50-135	36-149	
Endosulfan I		25.00	27.13	109	50-135	36-149	
Endosulfan II		25.00	27.52	110	50-135	36-149	
Endosulfan Sulfate		25.00	26.56	106	50-135	36-149	
Endrin		25.00	25.87	103	50-135	36-149	
Endrin Aldehyde		25.00	26.91	108	50-135	36-149	
Gamma-BHC		25.00	25.91	104	50-135	36-149	
Heptachlor		25.00	25.88	104	50-135	36-149	
Heptachlor Epoxide		25.00	25.26	101	50-135	36-149	
Methoxychlor		25.00	25.73	103	50-135	36-149	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3545  
Method: EPA 8081A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-12-537-2685</b>	<b>LCS</b>	<b>Solid</b>	<b>GC 51</b>	<b>05/03/17</b>	<b>05/06/17 09:13</b>	<b>170503L08</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		25.00	16.96	68	50-135	36-149	
Alpha-BHC		25.00	16.79	67	50-135	36-149	
Beta-BHC		25.00	17.08	68	50-135	36-149	
4,4'-DDD		25.00	18.57	74	50-135	36-149	
4,4'-DDE		25.00	18.32	73	50-135	36-149	
4,4'-DDT		25.00	19.02	76	50-135	36-149	
Delta-BHC		25.00	16.47	66	50-135	36-149	
Dieldrin		25.00	17.73	71	50-135	36-149	
Endosulfan I		25.00	17.50	70	50-135	36-149	
Endosulfan II		25.00	18.55	74	50-135	36-149	
Endosulfan Sulfate		25.00	17.82	71	50-135	36-149	
Endrin		25.00	17.82	71	50-135	36-149	
Endrin Aldehyde		25.00	15.11	60	50-135	36-149	
Gamma-BHC		25.00	17.19	69	50-135	36-149	
Heptachlor		25.00	17.80	71	50-135	36-149	
Heptachlor Epoxide		25.00	16.86	67	50-135	36-149	
Methoxychlor		25.00	18.05	72	50-135	36-149	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 3510C  
Method: EPA 8081A

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-12-529-952	LCS	Aqueous	GC 41	04/24/17	04/26/17 12:18	170424L13A				
099-12-529-952	LCSD	Aqueous	GC 41	04/24/17	04/26/17 12:33	170424L13A				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Alpha-BHC	0.5000	0.5421	108	0.5062	101	50-135	36-149	7	0-25	
Gamma-BHC	0.5000	0.5491	110	0.5113	102	50-135	36-149	7	0-25	
Beta-BHC	0.5000	0.5075	102	0.5266	105	50-135	36-149	4	0-25	
Heptachlor	0.5000	0.5042	101	0.4843	97	50-135	36-149	4	0-25	
Delta-BHC	0.5000	0.5644	113	0.5547	111	50-135	36-149	2	0-25	
Aldrin	0.5000	0.4694	94	0.4480	90	50-135	36-149	5	0-25	
Heptachlor Epoxide	0.5000	0.5232	105	0.4899	98	50-135	36-149	7	0-25	
Endosulfan I	0.5000	0.5446	109	0.5115	102	50-135	36-149	6	0-25	
Dieldrin	0.5000	0.5390	108	0.5051	101	50-135	36-149	6	0-25	
4,4'-DDE	0.5000	0.5355	107	0.5020	100	50-135	36-149	6	0-25	
Endrin	0.5000	0.5223	104	0.4910	98	50-135	36-149	6	0-25	
Endrin Aldehyde	0.5000	0.5148	103	0.5131	103	50-135	36-149	0	0-25	
4,4'-DDD	0.5000	0.5589	112	0.5289	106	50-135	36-149	6	0-25	
Endosulfan II	0.5000	0.5447	109	0.5172	103	50-135	36-149	5	0-25	
4,4'-DDT	0.5000	0.5028	101	0.4893	98	50-135	36-149	3	0-25	
Endosulfan Sulfate	0.5000	0.5272	105	0.4970	99	50-135	36-149	6	0-25	
Methoxychlor	0.5000	0.4819	96	0.4776	96	50-135	36-149	1	0-25	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
<b>099-14-001-23010</b>	<b>LCS</b>	<b>Aqueous</b>	<b>GC/MS V V</b>	<b>04/28/17</b>	<b>04/28/17 14:36</b>	<b>170428L026</b>	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
1,1,1,2-Tetrachloroethane		50.00	50.30	101	80-129	72-137	
1,1,1-Trichloroethane		50.00	48.17	96	76-124	68-132	
1,1,2,2-Tetrachloroethane		50.00	47.00	94	74-122	66-130	
1,1,2-Trichloro-1,2,2-Trifluoroethane		50.00	48.78	98	54-150	38-166	
1,1,2-Trichloroethane		50.00	48.76	98	80-120	73-127	
1,1-Dichloroethane		50.00	46.91	94	72-126	63-135	
1,1-Dichloroethene		50.00	45.71	91	66-132	55-143	
1,1-Dichloropropene		50.00	46.16	92	75-123	67-131	
1,2,3-Trichlorobenzene		50.00	52.40	105	72-132	62-142	
1,2,3-Trichloropropane		50.00	50.53	101	75-123	67-131	
1,2,4-Trichlorobenzene		50.00	51.52	103	74-134	64-144	
1,2,4-Trimethylbenzene		50.00	49.77	100	74-128	65-137	
1,2-Dibromo-3-Chloropropane		50.00	52.33	105	66-126	56-136	
1,2-Dibromoethane		50.00	47.96	96	80-120	73-127	
1,2-Dichlorobenzene		50.00	48.70	97	80-120	73-127	
1,2-Dichloroethane		50.00	46.59	93	76-120	69-127	
1,2-Dichloropropane		50.00	49.31	99	80-120	73-127	
1,3,5-Trimethylbenzene		50.00	49.87	100	77-131	68-140	
1,3-Dichlorobenzene		50.00	48.36	97	80-120	73-127	
1,3-Dichloropropane		50.00	48.60	97	80-120	73-127	
1,4-Dichlorobenzene		50.00	47.99	96	80-120	73-127	
2,2-Dichloropropane		50.00	55.31	111	50-150	33-167	
2-Butanone		50.00	51.85	104	60-126	49-137	
2-Chlorotoluene		50.00	48.61	97	80-121	73-128	
2-Hexanone		50.00	51.70	103	63-123	53-133	
4-Chlorotoluene		50.00	48.29	97	80-120	73-127	
4-Methyl-2-Pentanone		50.00	50.67	101	65-125	55-135	
Acetone		50.00	49.55	99	53-137	39-151	
Benzene		50.00	45.56	91	79-121	72-128	
Bromobenzene		50.00	48.39	97	80-120	73-127	
Bromochloromethane		50.00	48.81	98	80-122	73-129	
Bromodichloromethane		50.00	48.07	96	80-124	73-131	
Bromoform		50.00	50.97	102	73-127	64-136	
Bromomethane		50.00	31.87	64	50-150	33-167	
Carbon Disulfide		50.00	39.31	79	50-150	33-167	
Carbon Tetrachloride		50.00	52.00	104	65-143	52-156	
Chlorobenzene		50.00	47.68	95	80-120	73-127	
Chloroethane		50.00	44.97	90	62-128	51-139	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5030C  
Method: EPA 8260B

Project: Carriage Crest Park (CCP)

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<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Chloroform	50.00	47.14	94	80-120	73-127	
Chloromethane	50.00	43.91	88	43-133	28-148	
Dibromochloromethane	50.00	50.87	102	80-123	73-130	
Dibromomethane	50.00	47.72	95	80-120	73-127	
Dichlorodifluoromethane	50.00	59.29	119	50-150	33-167	
Ethylbenzene	50.00	48.23	96	80-120	73-127	
Isopropylbenzene	50.00	49.73	99	80-128	72-136	
Methylene Chloride	50.00	48.73	97	61-133	49-145	
Naphthalene	50.00	54.03	108	69-129	59-139	
Styrene	50.00	50.70	101	80-126	72-134	
Tetrachloroethene	50.00	43.98	88	55-139	41-153	
Toluene	50.00	46.68	93	80-120	73-127	
t-1,2-Dichloroethene	50.00	45.42	91	66-132	55-143	
Trichloroethene	50.00	46.16	92	79-121	72-128	
Trichlorofluoromethane	50.00	52.65	105	72-132	62-142	
Vinyl Acetate	50.00	51.36	103	50-150	33-167	
Vinyl Chloride	50.00	45.28	91	63-129	52-140	
c-1,3-Dichloropropene	50.00	50.08	100	77-131	68-140	
c-1,2-Dichloroethene	50.00	46.74	93	78-120	71-127	
n-Butylbenzene	50.00	50.23	100	72-138	61-149	
n-Propylbenzene	50.00	49.32	99	80-128	72-136	
o-Xylene	50.00	48.62	97	80-128	72-136	
p-Isopropyltoluene	50.00	49.33	99	73-133	63-143	
sec-Butylbenzene	50.00	48.96	98	77-131	68-140	
t-1,3-Dichloropropene	50.00	51.97	104	76-136	66-146	
tert-Butylbenzene	50.00	47.99	96	80-125	72-132	
p/m-Xylene	100.0	97.24	97	80-122	73-129	
Methyl-t-Butyl Ether (MTBE)	50.00	49.96	100	69-123	60-132	

Total number of LCS compounds: 66

Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
095-01-025-28775	LCS	Solid	GC/MS Q	05/03/17	05/03/17 09:49	170503L005				
095-01-025-28775	LCSD	Solid	GC/MS Q	05/03/17	05/03/17 10:17	170503L005				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
1,1-Dichloroethene	50.00	39.02	78	37.75	75	68-128	58-138	3	0-20	
1,2-Dibromoethane	50.00	44.97	90	45.97	92	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	50.00	44.90	90	45.29	91	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	42.86	86	42.53	85	80-120	73-127	1	0-20	
Benzene	50.00	41.26	83	40.69	81	80-120	73-127	1	0-20	
Carbon Tetrachloride	50.00	48.06	96	47.80	96	65-137	53-149	1	0-20	
Chlorobenzene	50.00	44.24	88	44.23	88	80-120	73-127	0	0-20	
Ethylbenzene	50.00	42.36	85	42.79	86	80-120	73-127	1	0-20	
Toluene	50.00	42.20	84	41.75	83	80-120	73-127	1	0-20	
Trichloroethene	50.00	44.03	88	43.36	87	80-120	73-127	2	0-20	
Vinyl Chloride	50.00	43.76	88	40.82	82	67-127	57-137	7	0-20	
o-Xylene	50.00	42.77	86	43.12	86	75-125	67-133	1	0-25	
p/m-Xylene	100.0	82.59	83	82.99	83	75-125	67-133	0	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	40.74	81	41.47	83	70-124	61-133	2	0-20	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
095-01-025-28776	LCS	Solid	GC/MS Q	05/03/17	05/03/17 09:49	170503L006				
095-01-025-28776	LCSD	Solid	GC/MS Q	05/03/17	05/03/17 10:17	170503L006				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	41.26	83	40.69	81	80-120	73-127	1	0-20	
Carbon Tetrachloride	50.00	48.06	96	47.80	96	65-137	53-149	1	0-20	
Chlorobenzene	50.00	44.24	88	44.23	88	80-120	73-127	0	0-20	
1,2-Dibromoethane	50.00	44.97	90	45.97	92	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	50.00	44.90	90	45.29	91	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	42.86	86	42.53	85	80-120	73-127	1	0-20	
1,1-Dichloroethene	50.00	39.02	78	37.75	75	68-128	58-138	3	0-20	
Ethylbenzene	50.00	42.36	85	42.79	86	80-120	73-127	1	0-20	
Toluene	50.00	42.20	84	41.75	83	80-120	73-127	1	0-20	
Trichloroethene	50.00	44.03	88	43.36	87	80-120	73-127	2	0-20	
Vinyl Chloride	50.00	43.76	88	40.82	82	67-127	57-137	7	0-20	
p/m-Xylene	100.0	82.59	83	82.99	83	75-125	67-133	0	0-25	
o-Xylene	50.00	42.77	86	43.12	86	75-125	67-133	1	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	40.74	81	41.47	83	70-124	61-133	2	0-20	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - LCS/LCSD

Tetra Tech, Inc.  
3475 East Foothill Blvd., Suite 300  
Pasadena, CA 91107-6024

Date Received: 04/20/17  
Work Order: 17-04-1498  
Preparation: EPA 5035  
Method: EPA 8260B

Project: Carriage Crest Park (CCP)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
095-01-025-28738	LCS	Solid	GC/MS Q	04/21/17	04/21/17 09:47	170421L010				
095-01-025-28738	LCSD	Solid	GC/MS Q	04/21/17	04/21/17 10:15	170421L010				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Benzene	50.00	44.17	88	44.65	89	80-120	73-127	1	0-20	
Carbon Tetrachloride	50.00	53.79	108	53.32	107	65-137	53-149	1	0-20	
Chlorobenzene	50.00	44.00	88	44.08	88	80-120	73-127	0	0-20	
1,2-Dibromoethane	50.00	44.84	90	45.10	90	80-120	73-127	1	0-20	
1,2-Dichlorobenzene	50.00	42.56	85	43.01	86	80-120	73-127	1	0-20	
1,2-Dichloroethane	50.00	44.11	88	45.34	91	80-120	73-127	3	0-20	
1,1-Dichloroethene	50.00	47.14	94	47.42	95	68-128	58-138	1	0-20	
Ethylbenzene	50.00	43.17	86	43.09	86	80-120	73-127	0	0-20	
Toluene	50.00	44.24	88	45.01	90	80-120	73-127	2	0-20	
Trichloroethene	50.00	46.32	93	46.33	93	80-120	73-127	0	0-20	
Vinyl Chloride	50.00	39.80	80	40.63	81	67-127	57-137	2	0-20	
p/m-Xylene	100.0	84.40	84	84.02	84	75-125	67-133	0	0-25	
o-Xylene	50.00	42.86	86	43.02	86	75-125	67-133	0	0-25	
Methyl-t-Butyl Ether (MTBE)	50.00	42.76	86	44.27	89	70-124	61-133	3	0-20	

Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Sample Analysis Summary Report

Work Order: 17-04-1498

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 6010B	EPA 3050B	935	ICP 7300	1
EPA 6010B	EPA 1311	935	ICP 7300	1
EPA 6010B	T22.11.5. All	935	ICP 7300	1
EPA 7470A	EPA 7470A Total	868	Mercury 08	1
EPA 7471A	EPA 7471A Total	868	Mercury 08	1
EPA 8015B (M)	EPA 5035	933	GC 57	2
EPA 8015B (M)	EPA 5035	1063	GC 56	2
EPA 8015B (M)	EPA 3550B	972	GC 45	1
EPA 8015B (M)	EPA 3550B	972	GC 48	1
EPA 8015B (M)	EPA 5030C	1118	GC 22	2
EPA 8081A	EPA 3545	669	GC 41	1
EPA 8081A	EPA 3545	669	GC 44	1
EPA 8081A	EPA 3545	669	GC 51	1
EPA 8081A	EPA 3510C	669	GC 41	1
EPA 8260B	EPA 5035	1055	GC/MS Q	2
EPA 8260B	EPA 5030C	1073	GC/MS V V	2

## Glossary of Terms and Qualifiers

Work Order: 17-04-1498

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

## Vikas Patel

---

**From:** Ferrell, Cari <Cari.Ferrell@tetrattech.com>  
**Sent:** Thursday, May 11, 2017 6:50 AM  
**To:** Vikas Patel; Fulcher, Sean; Kurkjian, Robert  
**Cc:** Erick Ovale  
**Subject:** RE: Carriage Crest Park (CCP) / CEL 17-04-1498

Vik/Erick –

Please run these additional analyses:

DP1-10 for chromium and lead STLC and TCLP, cadmium and copper for STLC  
DP1-15 for pesticides (we are aware it's past holding time) and metals  
DP1-10-00 chromium and lead STLC and TCLP, cadmium and copper STLC

Thanks,

**Cari E. Ferrell, P.E. | Environmental Engineer**  
Direct: 626.470.2803 | Cell: 626.590.4810 | Main: 626.351.4664  
[cari.ferrell@tetrattech.com](mailto:cari.ferrell@tetrattech.com)  
Tetra Tech | Pasadena Div  
3475 E. Foothill Blvd. | Pasadena, CA 91107 | [www.tetrattech.com](http://www.tetrattech.com)

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**Vikas Patel**

---

**From:** Ferrell, Cari <Cari.Ferrell@tetrattech.com>  
**Sent:** Wednesday, May 03, 2017 9:56 AM  
**To:** Erick Ovalle  
**Cc:** Vikas Patel; Fulcher, Sean; Kurkjian, Robert  
**Subject:** RE: Carriage Crest Park (CCP) / ECI 17-04-1498 - Preliminary PDF file

Hi Erick –

I missed one sample to be added for pesticides and metals: DP2-10

Also, on the additional samples requested for pesticides and metals, if the COC indicated TPH and VOCs can you also run those?

Thanks,

**Cari E. Ferrell, P.E. | Environmental Engineer**

Direct: 626.470.2803 | Cell: 626.590.4810 | Main: 626.351.4664

[cari.ferrell@tetrattech.com](mailto:cari.ferrell@tetrattech.com)

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---

**From:** Erick Ovalle [<mailto:ErickOvalle@eurofinsUS.com>]  
**Sent:** Tuesday, May 02, 2017 10:32 AM  
**To:** Ferrell, Cari <Cari.Ferrell@tetrattech.com>  
**Cc:** Vikas Patel <VikasPatel@eurofinsUS.com>; Fulcher, Sean <Sean.Fulcher@tetrattech.com>; Kurkjian, Robert <Robert.Kurkjian@tetrattech.com>  
**Subject:** RE: Carriage Crest Park (CCP) / ECI 17-04-1498 - Preliminary PDF file

Cari,

Not a problem. Please note that the extraction holding time is up tomorrow for Pesticides.

Best Regards,  
 Erick Ovalle  
 Project Manager Assistant

Eurofins Calscience, Inc.  
 7440 Lincoln Way  
 Garden Grove, CA 92841-1427  
 USA  
 Phone: +1 (714) 895-5494

---

**From:** Ferrell, Cari [<mailto:Cari.Ferrell@tetrattech.com>]  
**Sent:** Tuesday, May 02, 2017 10:07 AM  
**To:** Erick Ovalle  
**Cc:** Vikas Patel; Fulcher, Sean; Kurkjian, Robert  
**Subject:** RE: Carriage Crest Park (CCP) / ECI 17-04-1498 - Preliminary PDF file

Erick –

Please also run the STLC for chromium for DRUM-1.

**Cari E. Ferrell, P.E. | Environmental Engineer**

Direct: 626.470.2803 | Cell: 626.590.4810 | Main: 626.351.4664

[cari.ferrell@tetrattech.com](mailto:cari.ferrell@tetrattech.com)

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---

**From:** Ferrell, Cari

**Sent:** Tuesday, May 02, 2017 8:10 AM

**To:** 'Erick Ovalle' <[ErickOvalle@eurofinsUS.com](mailto:ErickOvalle@eurofinsUS.com)>

**Cc:** Vikas Patel <[VikasPatel@eurofinsUS.com](mailto:VikasPatel@eurofinsUS.com)>; Fulcher, Sean <[Sean.Fulcher@tetrattech.com](mailto:Sean.Fulcher@tetrattech.com)>; Kurkjian, Robert <[Robert.Kurkjian@tetrattech.com](mailto:Robert.Kurkjian@tetrattech.com)>

**Subject:** RE: Carriage Crest Park (CCP) / ECI 17-04-1498 - Preliminary PDF file

Hi Erick –

Please run the following for pesticides and metals:

- DP1-8
- DP1-10
- DP2-8
- DP2-15
- DP3-8
- DP3-10
- DP4-8
- DP5-8
- DP5-10
- DP6-8
- DP8-8
- DP9-8
- DP10-8
- DP12-8
- DP1-8-00
- DP1-10-00
- DP8-8-00
- DP11-3-00

And run the following for STLC for chromium and lead:

- DP1-1
- DP2-10-00 (also include cadmium and copper)
- DP4-1
- DP5-1
- DP8-1
- DP8-5
- DP11-1
- DP12-1

And run the following for TCLP for chromium and lead:

- DP-1-1 (Just lead for this one)
- DP2-10-00
- DP4-1
- DP8-1
- DP12-1

Let me know if you have any questions.

Thanks,

**Cari E. Ferrell, P.E. | Environmental Engineer**

Direct: 626.470.2803 | Cell: 626.590.4810 | Main: 626.351.4664

[cari.ferrell@tetrattech.com](mailto:cari.ferrell@tetrattech.com)

Tetra Tech | Pasadena Div

3475 E. Foothill Blvd. | Pasadena, CA 91107 | [www.tetrattech.com](http://www.tetrattech.com)

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---

**From:** Erick Ovalle [<mailto:ErickOvalle@eurofinsUS.com>]

**Sent:** Monday, May 01, 2017 11:31 AM

**To:** Ferrell, Cari <[Cari.Ferrell@tetrattech.com](mailto:Cari.Ferrell@tetrattech.com)>; Fulcher, Sean <[Sean.Fulcher@tetrattech.com](mailto:Sean.Fulcher@tetrattech.com)>

**Cc:** Vikas Patel <[VikasPatel@eurofinsUS.com](mailto:VikasPatel@eurofinsUS.com)>

**Subject:** Carriage Crest Park (CCP) / ECI 17-04-1498 - Preliminary PDF file

Preliminary PDF files attached for the subject project samples collected on *04/19/2017*. **Note, final hard copies of the report will not be mailed to your attention, therefore, we ask that you print the attached files and accept them as final.**

Please call with any questions or concerns.

Best Regards,  
Erick Ovalle  
Project Manager Assistant

Eurofins Calscience, Inc.  
7440 Lincoln Way  
Garden Grove, CA 92841-1427  
USA  
Phone: +1 (714) 895-5494

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## Erick Ovalle

---

**From:** Fulcher, Sean <Sean.Fulcher@tetrattech.com>  
**Sent:** Thursday, April 27, 2017 9:11 AM  
**To:** Erick Ovalle  
**Cc:** Ferrell, Cari  
**Subject:** Carriage Crest Park

Erick,

I believe the tripblanks (TB04192017) were submitted but were not checked for analysis on the COC. Could we please have them analyzed for TPH gas and VOCs by 8260?

Regards,

**Sean Fulcher** | Staff Geologist

Direct: (626) 470-2535 | Mobile: (626) 926-0902 | [sean.fulcher@tetrattech.com](mailto:sean.fulcher@tetrattech.com)

Tetra Tech | Pasadena Division

3475 E. Foothill Blvd. | Pasadena, CA 91107 | [tetrattech.com](http://tetrattech.com)

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LABORATORY CLIENT: Tetra Tech

ADDRESS: 3475 E Foothill Blvd

CITY: Pasadena

TEL: 626-470-2803

E-MAIL: cari.ferrell@tetratech.com

STATE: CA

ZIP: 91107

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:

Please keep samples ending in -8, -10, and -15 on hold pending further instruction.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
1	DP1-1	4/19/2017	0915	S	1
2	DP1-3	4/19/2017	0917	S	1
3	DP1-5	4/19/2017	0919	S	1
4	DP1-8	4/19/2017	0921	S	1
5	DP1-10	4/19/2017	0923	S	6
6	DP1-15	4/19/2017	0925	S	1
7	DP2-1	4/19/2017	1000	S	1
8	DP2-3	4/19/2017	1002	S	1
9	DP2-5	4/19/2017	1004	S	1
10	DP2-8	4/19/2017	1006	S	1

Relinquished by: (Signature)

*Cari Ferrell*

Relinquished by: (Signature)

*Cari Ferrell*

Relinquished by: (Signature)

*Sean Fulcher*

CLIENT PROJECT NAME / NUMBER:

Carriage Crest Park (CCP)

PROJECT CONTACT:

Cari Ferrell

P.O. NO.:

SAMPLER(S): (PRINT)

Sean Fulcher (SF)

### REQUESTED ANALYSES

Please check box or fill in blank as needed.

TPH(g) <input checked="" type="checkbox"/> GRO 805B	TPH(d) <input checked="" type="checkbox"/> DRO 805B	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260) 8260B	Oxygenates (8260)	Prep (5095) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input checked="" type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							X			X	

Received by: (Signature/Affiliation)

*Cari Ferrell*

Received by: (Signature/Affiliation)

*Sean Fulcher*

Received by: (Signature/Affiliation)

*Sean Fulcher*

Date: 4/20/17

Time: 0630

Date: 4/20/17

Time: 1125

Date: 4/20/17

Time: 1245





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# CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 1498

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PAGE: 2 OF 8

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LABORATORY CLIENT: Tetra Tech

ADDRESS: 3475 E Foothill Blvd

CITY: Pasadena STATE: CA ZIP: 91107

TEL: 626-470-2803 E-MAIL: cari.ferrell@tetratech.com

CLIENT PROJECT NAME / NUMBER: Carriage Crest Park (CCP) P.O. NO.:

PROJECT CONTACT: Cari Ferrell SAMPLER(S): (PRINT) Sean Fulcher (SF)

## REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE:			Field Filtered	Preserved	Unpreserved
		DATE	TIME			SAME DAY	48 HR	72 HR			
11	DP2-10	4/19/2017	1008	S	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	DP2-15	4/19/2017	1010	S	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	DP3-1	4/19/2017	1255	S	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	DP3-3	4/19/2017	1257	S	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	DP3-5	4/19/2017	1259	S	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	DP3-8	4/19/2017	1301	S	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	DP3-10	4/19/2017	1303	S	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	DP3-15	4/19/2017	1305	S	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	DP4-1	4/19/2017	0901	S	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	DP4-3	4/19/2017	0903	S	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GLOBAL ID: \_\_\_\_\_

SPECIAL INSTRUCTIONS: Please keep samples ending in -8, -10, and -15 on hold pending further instruction.

Relinquished by: (Signature) [Signature] Received by: (Signature/Affiliation) Cari Ferrell

Relinquished by: (Signature) [Signature] Received by: (Signature/Affiliation) [Signature]

Relinquished by: (Signature) [Signature] Received by: (Signature/Affiliation) [Signature]

Date: 4/20/17 Time: 0630

Date: 4/20/17 Time: 1125

Date: 4/20/17 Time: 1245



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LABORATORY CLIENT: Tetra Tech

ADDRESS: 3475 E Foothill Blvd

CITY: Pasadena

TEL: 626-470-2803

E-MAIL: cari.ferrell@tetratech.com

STATE: CA

ZIP: 91107

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:

Please keep samples ending in -8, -10, and -15 on hold pending further instruction.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
21	DP4-5	4/19/2017	0905	S	1
22	DP4-8	4/19/2017	0907	S	1
23	DP4-10	4/19/2017	0909	S	1
24	DP4-15	4/19/2017	0911	S	1
25	DP5-1	4/19/2017	1045	S	1
26	DP5-3	4/19/2017	1047	S	1
27	DP5-5	4/19/2017	1049	S	1
28	DP5-8	4/19/2017	1051	S	1
29	DP5-10	4/19/2017	1053	S	1
30	DP5-15	4/19/2017	1055	S	1

Relinquished by: (Signature) *[Signature]*  
 Relinquished by: (Signature) *[Signature]*  
 Relinquished by: (Signature) *[Signature]*

Received by: (Signature/Affiliation) *[Signature]*  
 Received by: (Signature/Affiliation) *[Signature]*  
 Received by: (Signature/Affiliation) *[Signature]*

# CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 1498

DATE: 04/19/17

PAGE: 3 OF 8

CLIENT PROJECT NAME / NUMBER: Carriage Crest Park (CCP)

PROJECT CONTACT: Cari Ferrell

P.O. NO.: Sean Fulcher (SF)

## REQUESTED ANALYSES

Please check box or fill in blank as needed.

TPH (g) <input type="checkbox"/> GRO	TPH (d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input checked="" type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Date: 4/20/17 Time: 0630

Date: 4/20/17 Time: 1125

Date: 4/20/17 Time: 1245





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ADDRESS: 3475 E Foothill Blvd

CITY: Pasadena

STATE: CA

ZIP: 91107

TEL: 626-470-2803

E-MAIL: cari.ferrell@tetratech.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:

Please keep samples ending in -8, -10, and -15 on hold pending further instruction.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE:		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
31	DP6-1	4/19/2017	1350	S	1			
32	DP6-3	4/19/2017	1352	S	1			
33	DP6-5	4/19/2017	1354	S	1			
34	DP6-8	4/19/2017	1358	S	1			
35	DP6-10	4/19/2017	1400	S	1			
36	DP6-15	4/19/2017	1402	S	6			
37	DP7-1	4/19/2017	0818	S	1			
38	DP7-3	4/19/2017	0820	S	1			
39	DP7-5	4/19/2017	0822	S	1			
40	DP7-8	4/19/2017	0824	S	6			

Relinquished by: (Signature) *Sean Fulcher*

Relinquished by: (Signature) *Cari Ferrell*

Relinquished by: (Signature) *G. J. C. Cade*

Received by: (Signature/Affiliation) *Cari Ferrell*

Received by: (Signature/Affiliation) *G. J. C. Cade*

Received by: (Signature/Affiliation) *G. J. C. Cade*

# CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **1498**

DATE: 04/19/17

PAGE: 4 OF 8

CLIENT PROJECT NAME / NUMBER: Carriage Crest Park (CCP)

P.O. NO.:

PROJECT CONTACT: Cari Ferrell

SAMPLER(S): (PRINT) Sean Fulcher (SF)

## REQUESTED ANALYSES

Please check box or fill in blank as needed.

TPH (g) <input checked="" type="checkbox"/> GRO 805B	TPH (d) <input checked="" type="checkbox"/> DRO 8015B	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260) 8260B	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input checked="" type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
X	X				X				X			X	
									X			X	
									X			X	
									X			X	
									X			X	
					X				X			X	
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									X			X	
					X				X			X	
									X			X	

Date: 4/20/17 Time: 0630

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STATE: CA

ZIP: 91107

TEL: 626-470-2803

E-MAIL: cari.ferrell@tetratech.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:

Please keep samples ending in -8, -10, and -15 on hold pending further instruction.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
41	DP7-10	4/19/2017	0826	S	1
42	DP7-15	4/19/2017	0828	S	1
43	DP8-1	4/19/2017	1110	S	1
47	DP8-3	4/19/2017	1112	S	1
45	DP8-5	4/19/2017	1114	S	1
46	DP8-8	4/19/2017	1116	S	1
47	DP8-10	4/19/2017	1118	S	1
48	DP8-15	4/19/2017	1120	S	1
49	DP9-1	4/19/2017	1430	S	1
50	DP9-3	4/19/2017	1432	S	1

Relinquished by: (Signature) *[Signature]*

Relinquished by: (Signature) *[Signature]*

Relinquished by: (Signature) *[Signature]*

Received by: (Signature/Affiliation) *[Signature]*

Received by: (Signature/Affiliation) *[Signature]*

Received by: (Signature/Affiliation) *[Signature]*

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **1498**

DATE: 04/19/17

PAGE: 5 OF 8

CLIENT PROJECT NAME / NUMBER: Carriage Crest Park (CCP)

PROJECT CONTACT: Cari Ferrell

SAMPLER(S): (PRINT) Sean Fulcher (SF)

REQUESTED ANALYSES

Please check box or fill in blank as needed.

TPH (g) <input type="checkbox"/> GRO	TPH (d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input checked="" type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: 4/20/17 Time: 0630

Date: 4/20/17 Time: 1125

Date: 4/20/17 Time: 1245





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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494  
For courier service / sample drop off information, contact us26\_sales@eurofinsus.com or call us.

LABORATORY CLIENT: Tetra Tech

ADDRESS: 3475 E Foothill Blvd

CITY: Pasadena

STATE: CA

ZIP: 91107

TEL: 626-470-2803

E-MAIL: cari.ferrell@tetratech.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:

Please keep samples ending in -8, -10, and -15 on hold pending further instruction.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE:		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
51	DP9-5	4/19/2017	1434	S	1			
52	DP9-8	4/19/2017	1436	S	1			
53	DP9-10	4/19/2017	1438	S	1			
54	DP9-15	4/19/2017	1440	S	6			
55	DP10-1	4/19/2017	0730	S	1			
56	DP10-3	4/19/2017	0732	S	1			
57	DP10-5	4/19/2017	0734	S	1			
58	DP10-8	4/19/2017	0736	S	1			
59	DP10-10	4/19/2017	0738	S	1			
60	DP10-15	4/19/2017	0740	S	1			

Relinquished by: (Signature)

*Sean Fulcher*

Received by: (Signature/Affiliation)

*Cari Ferrell*

Relinquished by: (Signature)

*Cari Ferrell*

Received by: (Signature/Affiliation)

*Jeff Bradley*

Relinquished by: (Signature)

*Jeff Bradley*

Received by: (Signature/Affiliation)

*Jeff Bradley*

Date: 4/20/17	Time: 0630
Date: 4/20/17	Time: 1125
Date: 4/20/17	Time: 1245

# CHAIN OF CUSTODY RECORD

DATE: 04/19/17

PAGE: 6 OF 8

WG # / LAB USE ONLY

*799V*

CLIENT PROJECT NAME / NUMBER:

Carriage Crest Park (CCP)

PROJECT CONTACT:

Cari Ferrell

P.O. NO.:

SAMPLER(S): (PRINT)

Sean Fulcher (SF)

## REQUESTED ANALYSES

Please check box or fill in blank as needed.

TPH (g) <input checked="" type="checkbox"/> GRO 8015B	TPH (d) <input checked="" type="checkbox"/> DRO 8015B	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260) <i>8260B</i>	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input checked="" type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
X	X								X			X	
									X			X	
									X			X	
									X			X	
									X			X	
									X			X	
									X			X	
									X			X	
									X			X	
									X			X	
									X			X	
									X			X	





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LABORATORY CLIENT: Tetra Tech

ADDRESS: 3475 E Foothill Blvd  
 CITY: Pasadena STATE: CA ZIP: 91107

TEL: 626-470-2803 E-MAIL: cari.ferrell@tetratech.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):  
 SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:  
 Please keep samples ending in -8, -10, and -15 on hold pending further instruction.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE:		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
61	DP11-1	4/19/2017	1144	S	1			
62	DP11-3	4/19/2017	1150	S	1			
63	DP11-5	4/19/2017	1148	S	1			
64	DP11-8	4/19/2017	1156	S	6			
65	DP11-10	4/19/2017	1152	S	1			
66	DP11-15	4/19/2017	1154	S	1			
67	DP12-1	4/19/2017	1222	S	1			
68	DP12-3	4/19/2017	1224	S	1			
69	DP12-5	4/19/2017	1226	S	1			
70	DP12-8	4/19/2017	1228	S	1			

Relinquished by: (Signature) *[Signature]*  
 Relinquished by: (Signature) *[Signature]*  
 Relinquished by: (Signature) *[Signature]*

Received by: (Signature/Affiliation) *[Signature]*  
 Received by: (Signature/Affiliation) *[Signature]*  
 Received by: (Signature/Affiliation) *[Signature]*

Date: 4/20/17 Time: 0630  
 Date: 4/20/17 Time: 1125  
 Date: 4/20/17 Time: 1245

REQUESTED ANALYSES

Please check box or fill in blank as needed.

TPH (g) <input checked="" type="checkbox"/> GRO 8015B	TPH (d) <input checked="" type="checkbox"/> DRO 8015B	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH <input type="checkbox"/>	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260) 8260B	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 SIM	T22 Metals <input checked="" type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	

CHAIN OF CUSTODY RECORD  
 DATE: 04/19/17  
 PAGE: 7 OF 8

WO # / LAB USE ONLY: 17498  
 CLIENT PROJECT NAME / NUMBER: Carriage Crest Park (CCP)  
 PROJECT CONTACT: Cari Ferrell  
 P.O. NO.:  
 SAMPLER(S): (PRINT) Sean Fulcher (SF)







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LABORATORY CLIENT: Tetra Tech

ADDRESS: 3475 E Foothill Blvd

CITY: Pasadena

TEL: 626-470-2803

E-MAIL: cari.ferrell@tetratech.com

STATE: CA

ZIP: 91107

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY  24 HR  48 HR  72 HR  5 DAYS  STANDARD

COELT EDF

LOG CODE:

SPECIAL INSTRUCTIONS:

Please keep samples ending in -8, -10, and -15 on hold pending further instruction.  
Please keep samples DP1-8-00, DP1-10-00, DP1-1-3-00, and DP8-8-00 on hold pending further instruction.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
71	DP12-10	4/19/2017	1230	S	6
72	DP12-15	4/19/2017	1232	S	1
73	TB04192017	4/19/2017	0700	W	3
74	EB04192017	4/19/2017	1500	W	2
75	DP1-8-00	4/19/2017	0922	S	1
76	DP1-10-00	4/19/2017	0924	S	1
77	DP11-3-00	4/19/2017	1151	S	1
78	DP8-8-00	4/19/2017	1119	S	1
79	DP2-10-00	4/19/2017	1009	S	1
80	DRUM1	4/19/2017	1515	S	6

Relinquished by: (Signature)

Relinquished by: (Signature)

Relinquished by: (Signature)

*[Signature]*

*[Signature]*

*[Signature]*

Received by: (Signature/Affiliation)

Received by: (Signature/Affiliation)

Received by: (Signature/Affiliation)

*[Signature]*

*[Signature]*

*[Signature]*

Date: 4/20/17 Time: 0630

Date: 4/20/17 Time: 1135

Date: 4/20/17 Time: 1245

# CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 1798

DATE: 04/19/17

PAGE: 8 OF 8

CLIENT PROJECT NAME / NUMBER: Carriage Crest Park (CCP)

P.O. NO.:

PROJECT CONTACT: Cari Ferrell

SAMPLER(S): (PRINT) Sean Fulcher (SF)

## REQUESTED ANALYSES

Please check box or fill in blank as needed.

TPH (g) <input checked="" type="checkbox"/> GRO	TPH (d) <input checked="" type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260) <u>8260B</u>	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input checked="" type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6
X	X				X				X			X	
X	X								X			X	
									X			X	
									X			X	
									X			X	
									X			X	
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									X			X	
									X			X	
									X			X	



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 2

CLIENT: Tetra Tech

DATE: 04/20/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 2.4 °C (w/ CF): 2.4 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 1091

CUSTODY SEAL:

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: 1091

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: [Signature]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input checked="" type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Container(s) for certain analysis free of headspace .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation .....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

(Trip Blank Lot Number: 170407A)

Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB

125PBz<sub>na</sub>  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (P)  EnCores® ( )  TerraCores® (5)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix ( ):  \_\_\_\_\_  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 802

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, z<sub>na</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: 700

\* (-75) 20 (-80) (4) (-11) (-46) (-62). 802

Return to Contents

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 2

CLIENT: Tetra Tech

DATE: 04/20/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 2.2 °C (w/ CF): 2.2 °C; [x] Blank [ ] Sample

[ ] Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

[ ] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

[ ] Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: [ ] Air [ ] Filter

Checked by: 1091

CUSTODY SEAL:

Cooler [ ] Present and Intact [ ] Present but Not Intact [x] Not Present [ ] N/A

Checked by: 1091

Sample(s) [ ] Present and Intact [ ] Present but Not Intact [x] Not Present [ ] N/A

Checked by: [signature]

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ..... [x] Yes [ ] No [ ] N/A

COC document(s) received complete ..... [x] Yes [ ] No [ ] N/A

[ ] Sampling date [ ] Sampling time [ ] Matrix [ ] Number of containers

[ ] No analysis requested [ ] Not relinquished [ ] No relinquished date [ ] No relinquished time

Sampler's name indicated on COC ..... [x] Yes [ ] No [ ] N/A

Sample container label(s) consistent with COC ..... [x] Yes [ ] No [ ] N/A

Sample container(s) intact and in good condition ..... [x] Yes [ ] No [ ] N/A

Proper containers for analyses requested ..... [x] Yes [ ] No [ ] N/A

Sufficient volume/mass for analyses requested ..... [x] Yes [ ] No [ ] N/A

Samples received within holding time ..... [x] Yes [ ] No [ ] N/A

Aqueous samples for certain analyses received within 15-minute holding time

[ ] pH [ ] Residual Chlorine [ ] Dissolved Sulfide [ ] Dissolved Oxygen ..... [ ] Yes [ ] No [x] N/A

Proper preservation chemical(s) noted on COC and/or sample container ..... [x] Yes [ ] No [x] N/A

Unpreserved aqueous sample(s) received for certain analyses

[ ] Volatile Organics [ ] Total Metals [ ] Dissolved Metals

Container(s) for certain analysis free of headspace ..... [ ] Yes [ ] No [x] N/A

[ ] Volatile Organics [ ] Dissolved Gases (RSK-175) [ ] Dissolved Oxygen (SM 4500)

[ ] Carbon Dioxide (SM 4500) [ ] Ferrous Iron (SM 3500) [ ] Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation ..... [ ] Yes [ ] No [x] N/A

CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous: [ ] VOA [ ] VOA<sub>h</sub> [ ] VOA<sub>na2</sub> [ ] 100PJ [ ] 100PJ<sub>na2</sub> [ ] 125AGB [ ] 125AGB<sub>h</sub> [ ] 125AGB<sub>p</sub> [ ] 125PB

[ ] 125PB<sub>znna</sub> [ ] 250AGB [ ] 250CGB [ ] 250CGB<sub>s</sub> [ ] 250PB [ ] 250PB<sub>n</sub> [ ] 500AGB [ ] 500AGJ [ ] 500AGJ<sub>s</sub>

[ ] 500PB [ ] 1AGB [ ] 1AGB<sub>na2</sub> [ ] 1AGB<sub>s</sub> [ ] 1PB [ ] 1PB<sub>na</sub> [ ] \_\_\_\_\_ [ ] \_\_\_\_\_ [ ] \_\_\_\_\_ [ ] \_\_\_\_\_

Solid: [ ] 4ozCGJ [x] 8ozCGJ [ ] 16ozCGJ [x] Sleeve (P) [ ] EnCores® (\_\_\_\_) [ ] TerraCores® (\_\_\_\_) [ ] \_\_\_\_\_

Air: [ ] Tedlar™ [ ] Canister [ ] Sorbent Tube [ ] PUF [ ] \_\_\_\_\_ Other Matrix (\_\_\_\_): [ ] \_\_\_\_\_ [ ] \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: [signature]

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, znna = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: [signature]