## Initial Study/Mitigated Negative Declaration

# Norco College Center for Human Performance and Kinesiology Building

**OCTOBER 2024**

*Prepared for:*

**RIVERSIDE COMMUNITY COLLEGE DISTRICT**
3801 Market Street, 3rd Floor
Riverside, California 92501
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# Acronyms and Abbreviations

| Acronym/Abbreviation | Definition |
|---|---|
| $\mu g/m^3$ | micrograms per cubic meter |
| AB | Assembly Bill |
| AQMP | Air Quality Management Plan |
| ASF | assignable square feet |
| bgs | below ground surface |
| BMP | best management practice |
| CAAQS | California Ambient Air Quality Standards |
| CAL FIRE | California Department of Forestry and Fire Protection |
| CalEEMod | California Emissions Estimator Model |
| Caltrans | California Department of Transportation |
| CAP | Climate Action Plan |
| CARB | California Air Resources Board |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| $CH_4$ | methane |
| CHP+K Building | Center for Human Performance and Kinesiology Building |
| CHRIS | California Historical Resources Information System |
| CNEL | community noise equivalent level |
| CO | carbon monoxide |
| College | Norco College |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | carbon monoxide equivalent |
| dB | decibel |
| dBA | A-weighted decibel |
| District | Riverside Community College District |
| DPM | diesel particulate matter |
| DTSC | Department of Toxic Substances Control |
| EIC | Eastern Information Center |
| EIR | environmental impact report |
| EPA | U.S. Environmental Protection Agency |
| ESLs | Regional Water Quality Control Board Environmental Screening Levels |
| GHG | greenhouse gas |
| GSF | gross square feet |
| GWP | global warming potential |
| HVAC | heating, ventilation, and air-conditioning |
| in/sec | inches per second |
| kBTU | thousand British thermal units |
| kg/MT | kilograms per metric ton |
| kWh | kilowatt-hour |
| $L_{dn}$ | day–night average noise level |

| Acronym/Abbreviation | Definition |
|---|---|
| $L_{eq}$ | equivalent sound energy level |
| $L_{max}$ | greatest sound level measured during a designated time interval |
| LST | localized significance threshold |
| mg/kg | milligrams per kilogram |
| MM | mitigation measure |
| MND | mitigated negative declaration |
| MRLs | method reporting limits |
| MRZ | Mineral Resource Zone |
| MS4 | Municipal Separate Storm Sewer System |
| MSHCP | Multiple Species Habitat Conservation Plan |
| MT | metric ton |
| mya | million years ago |
| $N_2O$ | nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| $NF_3$ | nitrogen trifluoride |
| $NO_2$ | nitrogen dioxide |
| $NO_x$ | oxides of nitrogen |
| O&M Plan | Vapor Intrusion Mitigation System Operations, Monitoring, and Maintenance Plan |
| $O_3$ | ozone |
| PAD | Preservation and Development |
| $PM_{2.5}$ | fine particulate matter |
| $PM_{10}$ | coarse particulate matter |
| ppm | parts per million |
| PPV | peak particle velocity |
| RCNM | Roadway Construction Noise Model |
| RSLs | U.S. Environmental Protection Agency Regional Screening Levels |
| RTP/SCS | Regional Transportation Plan/Sustainable Communities Strategy |
| RWQCB | Regional Water Quality Control Board |
| SB | Senate Bill |
| SCAB | South Coast Air Basin |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Management District |
| $SF_6$ | sulfur hexafluoride |
| SLF | Sacred Lands File |
| SLs | Department of Toxic Substances Control Modified Screening Levels |
| SMARA | State Mining and Reclamation Act |
| $SO_2$ | sulfur dioxide |
| $SO_x$ | sulfur oxides |
| SWPPP | stormwater pollution prevention plan |
| TAC | toxic air contaminant |
| TCRs | Tribal Cultural Resources |
| TPH | total petroleum hydrocarbons |

| Acronym/Abbreviation | Definition |
|---|---|
| TPHg | total petroleum hydrocarbons in the gasoline range |
| UWMP | Urban Water Management Plan |
| VMT | vehicle miles traveled |
| VOC | volatile organic compound |
| WMWD | Western Municipal Water District |
| WQMP | water quality management plan |
| WRCOG | Western Riverside County Council of Governments |

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# 1 Introduction

## 1.1 Project Overview

In 1964, voters approved the creation of the Riverside Community College District (District) and the election of a five-member Board of Trustees. The Norco campus opened in March 1991 (Norco College 2021). Norco College (or the College) has not been able to provide a comprehensive physical education program because of a lack of space. Currently the College offers the entire physical education program from less than 10,000 assignable square feet (ASF) of temporary modular facilities. Due to the lack of facilities, the College is unable to offer the entire set of courses necessary to complement the existing exercise, sports, and wellness certificate programs. Specifically, the College is lacking laboratory and gymnasium space where the students are expected to apply and practice instructional content learned in lectures. Currently, the College experiences waiting lists equal to the number of enrolled students in some of the high-demand courses such as kickboxing and yoga, which are taught in the same room of the portable facility on campus. The lack of a permanent comprehensive facility has precluded the offering of classes essential to the growth of the physical education program, thus depriving students of valuable education opportunities. Lab activities are typically incorporated into courses such as Applied Physiology, Applied Nutrition, Wellness, and Fitness Assessment. Activity courses that require the use of a gymnasium, such as basketball, volleyball, and badminton, are currently not offered, and high-demand courses such as kickboxing and yoga also need more space so additional course offerings can be added.

The District's Norco College Center for Human Performance and Kinesiology Building project (project or proposed project) seeks to advance the changes and goals of the Vision for Success, an effort to improve student success, increase student transfers to 4-year institutions, and build robust career technical education programs. The new Center for Human Performance and Kinesiology Building will provide modern, efficient space for students to create clear guided pathways for their future education. The new Center for Human Performance and Kinesiology Building will replace the 5,020 gross-square-foot (GSF) No. 13 Center for Applied and Competitive Technologies Building, the 3,360 GSF No. 14 Multipurpose W1 & W2 Building, and the 1,920 GSF No. 24 West End Quad W8 Building.

## 1.2 California Environmental Quality Act Compliance

The District is the California Environmental Quality Act (CEQA) lead agency responsible for the review and approval of the proposed project. Based on the findings of the initial study for the project, the District has determined that a mitigated negative declaration (MND) is the appropriate environmental document to prepare in compliance with CEQA (California Public Resources Code, Section 21000 et seq.). As stated in CEQA, Section 21064.5, an MND may be prepared for a project subject to CEQA when an initial study has identified no potentially significant effects on the environment.

This MND has been prepared for the District and complies with Section 15070(a) of the CEQA Guidelines (14 CCR 15000 et seq.). The purpose of the MND and the Initial Study Checklist (see Chapter 3 of this MND) is to determine any potentially significant impacts associated with the proposed project and to incorporate mitigation measures into the project design as necessary to reduce or eliminate the significant or potentially significant effects of the project.

## 1.3 List of Discretionary Actions

Approval of the following discretionary actions will be required to implement the proposed project: approval of the project by the District Board of Trustees.

## 1.4 Other Agencies That May Use the Mitigated Negative Declaration

This MND is also intended for use by responsible agencies that may have an interest in reviewing the project. All responsible agencies for the project, listed as follows, will therefore be involved in the review of this document:

- City of Norco
- California Department of Toxic Substances Control

## 1.5 Public Review Process

In accordance with CEQA, a good-faith effort has been made during the preparation of this MND to contact affected agencies, organizations, and persons who may have an interest in this project.

In reviewing the MND, public agencies and the interested public should focus on the sufficiency of the document in identifying and analyzing the project's possible impacts on the environment. A copy of the Draft MND and related documents are available for review at the front desk of the District (see address below) between the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday.

Riverside Community College District
3801 Market Street
Riverside, California 92501

Comments on the MND may be made in writing before the end of the public review period. A 30-day review and comment period from October 1, 2024, to October 30, 2024, has been established in accordance with Section 15072(a) of the CEQA Guidelines. Following the close of the public comment period, the District will consider this MND and comments in determining whether to approve the proposed project.

Written comments on the MND should be received at the following address by 5:00 p.m., October 30, 2024.

Riverside Community College District
3801 Market Street
Riverside, California 92501
Contact: Mehran Mohtasham, Director of Capital Planning, Facilities, Planning and Development
Telephone: 951.222.8946
Email: Mehran.Mohtasham@rccd.edu

# 2 Project Description

## 2.1 Project Location

The proposed project site is located in the City of Norco (City), in the extreme northwestern portion of Riverside County, near a tri-county meeting point between Riverside, Orange, and San Bernardino Counties (Figure 1, Project Location). The City is located about 50 miles south and east of the City of Los Angeles, and regional access is provided via State Route 91 and Interstate 15. Nearby communities include Corona, Home Gardens, Mira Loma, El Cerrito, Pedley, Glen Avon, Ontario, Chino, and Riverside. The proposed project site is 4.3 acres and is located on the existing Norco College campus.

More specifically, the proposed project site is located on the western portion of the campus, east of the soccer field, and west of West End Drive.

## 2.2 Environmental Setting

The proposed project site is located on the Norco College campus at 2001 Third Street. Norco College consists of an approximately 141-acre parcel owned by the District and currently supports the existing Norco College campus buildings and facilities, as well as the John F. Kennedy Middle College High School (District 2013). The central core area and the playing fields are relatively flat; vegetated slopes and open space areas surround the core campus on the north and east and partially on the southeast, making the campus relatively unavailable for development due to its extreme topographic profile (District 2013). Vehicular access is provided via Third Street and is the only means of accessing the campus. Sidewalks exist along Third Street at the entrance of the campus and provide for pedestrian mobility by connecting to campus walkways and other campus parking lots/driveways.

Norco College is located in a developed urban area of the City of Norco and is surrounded by residential communities to the west and south, the Naval Surface Warfare Center to the north, and commercial development to the east (District 2013). Residential uses exist as close as 455 feet west of the proposed project site.

The proposed project site is designated as Preservation and Development (PAD) in the City's General Plan (City of Norco 2012a), and the zoning designation is also PAD (City of Norco 2012b). The project site is currently undeveloped but is adjacent to West End Drive and ornamental plantings.

## 2.3 Project Characteristics

### 2.3.1 Proposed Project

The proposed project would involve the construction of the Center for Human Performance and Kinesiology Building (CHP+K Building or building), a 56,284 GSF, two-story building, which would support Norco College's physical education program (Figure 2, Project Site Plan). The building would include a classroom laboratory, office space, a conference room, a lounge, and athletic space. The athletic space would include a multi-use gymnasium with retractable seating for 500, a weight room, a training room, a cardio and wellness studio, exercise studios, storage space, a laundry room, student locker rooms, and faculty changing rooms.

Landscaped areas would be provided along the perimeter of the building and would include drought-tolerant landscaping. The existing row of trees located at the eastern perimeter of the site would remain in place.

The project site would provide vehicle access for maintenance vehicles only. A paved walking path that could also be used by service vehicles would be constructed to connect the existing roundabout located on West End Drive to the new building. Bollards would be placed at the connection point with West End Drive to prevent access by vehicles other than maintenance vehicles. Service vehicles would also be able to access the building from the upper quad area north of the new building. No parking spaces would be available within the project site boundary. Parking for students and faculty would continue to be available in Parking Lot D.

### 2.3.2 Proposed Operation

Although Norco College was established in 1991, the College has not been able to provide a comprehensive physical education program because of a lack of space. Once operational, the new CHP+K Building would provide students a comprehensive physical education program. The proposed project would result in the generation of approximately 500 to 1,000 new students and 6 new full-time employees. Four full-time certified personnel will be hired to teach the additional physical education courses. Two classified personnel (school employees who do not need certification or licensure to be qualified for employment) will also be hired to support the expanded programs: one administrative assistant and one trainer.

The CHP+K Building would operate year-round and would typically be open from 6:00 a.m. to 10:00 p.m. Monday through Saturday. Similar to many other buildings on campus, the CHP+K Building may occasionally be open after hours throughout the year (e.g., hosting weekend events, home games). The CHP+K Building would host approximately 20 to 25 home games per year with a maximum of 500 attendees, which could occur on weekday evenings and weekends. The project would become operational in July 2027.

### 2.3.3 Proposed Construction

Construction of the proposed project would include concrete removal/demolition, site preparation, grading, underground utility construction (trenching), building construction, paving, and architectural coating. Construction is anticipated to begin January 2025 and end in December 2025, for an approximate construction duration of approximately 12 months, or 1 year. Construction equipment would be staged either on site or in Parking Lot D. Construction phasing is anticipated as follows[1]:

- Demolition (20 days)
- Site preparation (2 days)
- Grading (4 days)
- Building construction (200 days)

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[1] The construction models were based on preliminary construction schedule estimates and assumed a start date of January 2025, which represented the earliest date construction would initiate. Because the California Emissions Estimator Model (CalEEMod) uses real dates (e.g., January 15, 2024) to calculate construction emissions, assumptions were made as to key dates for each phase. Although it was later determined that construction would begin in April 2025, the construction modeling is still representative of the project. The earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

- Paving (10 days)
- Architectural coating (10 days)

Demolition would involve the removal of the existing Center for Applied and Competitive Technologies Building and existing concrete located throughout the site. Additional site clearing and rough grading would occur during the site preparation phase. Grading would require 5,080 cubic yards of cut soil, which would need to be used for the project, and also about 3,840 cubic yards of import soil to complete grading. The maximum depth of disturbance would be approximately 40 feet. Building construction would involve construction of the entire CHP+K Building. The paving phase would involve the pavement of surfaces with asphalt and concrete. The architectural coating phase would involve the application of interior and exterior paints and coatings. A summary of the anticipated construction equipment, quantity of equipment; hours of operation of the equipment; and worker, vendor, and haul trips per phase is included in Table 2-1.

## Table 2-1. Anticipated Construction Scenario

| Construction Phase | One-Way Vehicle Trips | | | Equipment | | |
|---|---|---|---|---|---|---|
| | Average Daily Worker Trips | Average Daily Vendor Truck Trips | Average Daily Haul Truck Trips | Equipment Type | Quantity | Usage Hours |
| Demolition | 13 | 4 | 8 | Concrete/industrial saws | 1 | 8 |
| | | | | Tractors/loaders/backhoes | 3 | 8 |
| | | | | Rubber-tired dozers | 1 | 8 |
| Site Preparation | 8 | 4 | 0 | Graders | 1 | 8 |
| | | | | Tractors/loaders/backhoes | 1 | 8 |
| | | | | Rubber-tired dozers | 1 | 7 |
| Grading | 10 | 4 | 119 | Graders | 1 | 8 |
| | | | | Rubber-tired dozers | 1 | 8 |
| | | | | Tractors/loaders/backhoes | 2 | 7 |
| Building Construction | 24 | 10 | 0 | Cranes | 1 | 6 |
| | | | | Forklifts | 1 | 6 |
| | | | | Generator sets | 1 | 8 |
| | | | | Tractors/loaders/backhoes | 1 | 6 |
| | | | | Welders | 3 | 8 |
| Paving | 14 | 4 | 0 | Cement and mortar mixers | 1 | 6 |
| | | | | Pavers | 1 | 6 |
| | | | | Paving equipment | 1 | 8 |
| | | | | Tractors/loaders/backhoes | 1 | 8 |
| | | | | Rollers | 1 | 7 |
| Architectural Coating | 6 | 4 | 0 | Air compressors | 1 | 6 |

**Source:** Appendix A.
**Note:** Water trucks were not modeled as equipment in the construction models; instead, they were modeled as vendor trips.

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# 3 Initial Study Checklist

1. **Project title:**

   Norco College Center for Human Performance and Kinesiology Building

2. **Lead agency name and address:**

   Riverside Community College District
   3801 Market Street
   Riverside, California 92501

3. **Contact person and phone number:**

   Mehran Mohtasham, Director of Capital Planning, Facilities, Planning and Development
   951.222.8946

4. **Project location:**

   2001 Third Street
   Norco, California 92860

5. **Project sponsor's name and address:**

   Riverside Community College District
   3801 Market Street
   Riverside, California 92501

6. **General plan designation:**

   Preservation and Development (PAD)

7. **Zoning:**

   Preservation and Development (PAD)

8. **Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):**

   See Section 2.3, Project Characteristics.

9. **Surrounding land uses and setting (Briefly describe the project's surroundings):**

   See Section 2.2, Environmental Setting.

**10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

See Section 1.4, Other Agencies That May Use the Mitigated Negative Declaration.

**11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

Yes. See Section 3.18, Tribal Cultural Resources.

## 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.

☐ Aesthetics
☐ Agriculture and Forestry Resources
☐ Air Quality
☐ Biological Resources
☐ Cultural Resources
☐ Energy
☐ Geology and Soils
☐ Greenhouse Gas Emissions
☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality
☐ Land Use and Planning
☐ Mineral Resources
☐ Noise
☐ Population and Housing
☐ Public Services
☐ Recreation
☐ Transportation
☐ Tribal Cultural Resources
☐ Utilities and Service Systems
☐ Wildfire
☐ Mandatory Findings of Significance

## Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that 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.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) 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.

☐ I find that 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 upon the proposed project, nothing further is required.

HUSSAIN AGHA
HUSSAIN AGAH

September 30, 2024

Signature

Date

## Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. The significance criteria or threshold, if any, used to evaluate each question; and
    b. The mitigation measure identified, if any, to reduce the impact to less than significance

## 3.1 Aesthetics

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **I. AESTHETICS** – Except as provided in Public Resources Code Section 21099, would the project: | | | | |
| a) Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☒ | ☐ |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☐ | ☒ |
| c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | ☐ | ☐ | ☒ | ☐ |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ☒ | ☐ |

*a) Would the project have a substantial adverse effect on a scenic vista?*

Less-Than-Significant Impact. Scenic vistas and other important visual resources are typically associated with natural landforms such as mountains, foothills, ridgelines, coastlines, and open space areas, and are typically designated by jurisdictions within their planning documents (i.e., general plans, community plans, and area plans). While the City's planning documents do not identify or designate any scenic vistas within the City, the City's General Plan Land Use Element states that landmarks and community focal points tend to revolve around the views of the surrounding San Gabriel, San Bernardino, and Santa Ana Mountains. Neither the project site nor the surrounding area is associated with any scenic designation. The proposed two-story structure would be located at a lower elevation relative to the existing hills toward the north, which provide views of the Santa Ana Mountains and Corona Valley. However, the existing distant view of the Santa Ana Mountains is not a designated scenic vista and is fairly typical of other southerly views available near the project site and surrounding area, including from other vantages on the College campus. As such, no potentially significant impacts to such visual resources are anticipated as a result of the proposed project.

Aside from mountain views, the major aesthetic resources within the specific project study area include views of the open space area to the north of the College towards Lake Norconian. Lake Norconian is located approximately 0.22 miles from the project site. As such, upon completion of construction, views of the lake from the College campus would be partially obstructed by the proposed building. However, the lake is not considered a scenic resource. Therefore, implementation of the proposed project would result in a less-than-significant impact on a scenic vista.

b) ***Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?***

No Impact. According to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System (Caltrans 2022), no officially designated or eligible state scenic highways are located adjacent to or near the project site. In addition, the City's General Plan does not identify any designated scenic corridors. Therefore, no impacts associated with scenic highways would occur.

c) ***In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?***

Less-Than-Significant Impact. The College campus is in an urbanized area. The proposed project would incorporate design elements (architecture, site planning, landscaping) of appropriate scale, bulk, and mass that would create an organized and unified visual pattern similar to the surrounding environment and existing structures and landscaping associated with the College campus. Thus, visual contrast associated with introduction of the proposed project would be low.

As described in Section 3.11, Land Use and Planning, the project site is designated under the City's General Plan as Preservation and Development (PAD) (City of Norco 2012a) with a zoning designation of PAD (City of Norco 2012b). The proposed project does not violate any policies in the City's General Plan, Municipal Code, or any applicable specific plans in the area. Impacts would be less than significant.

As discussed previously in Section 3.1(a), due to the location of the project site, the proposed project would not adversely affect views of surrounding open space, hillsides, or more distant mountains beyond the College.

Construction activities would cause short-term visual quality impacts that would be experienced by college visitors and users of the hiking trails located north of the project site. Impacts would be associated with the temporary presence of construction equipment, vehicles, and operations on the project site and in views. However, due to the temporary nature of construction, impacts associated with visual character and quality would be less than significant.

d) ***Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?***

Less-Than-Significant Impact. The proposed project would introduce lighting for the proposed structures, walkways, and landscaped areas to be constructed on site.

Similar to existing campus buildings, the proposed CHP+K Building would include interior lighting for illumination of offices, restrooms, and exterior lighting for safety and security purposes. Minimal outdoor lighting would be required for the proposed CHP+K Building, which would require entrance lighting. All lighting would be directed, oriented, and shielded to prevent light from shining onto adjacent properties and to minimize nighttime glow and light spillage. Thus, by controlling the use of lighting on the site and the use of shielding, light and glare resulting from the proposed project would not adversely affect daytime or nighttime views in the area, and impacts would be less than significant.

## 3.2 Agriculture and Forestry Resources

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| II. **AGRICULTURE AND FORESTRY 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 Dept. 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? | ☐ | ☐ | ☐ | ☒ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ☒ |
| 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))? | ☐ | ☐ | ☐ | ☒ |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

a) ***Would the project 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?***

No Impact. Based on farmland maps prepared by the California Department of Conservation, the project site is not located in an area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The project site is designated as "Urban and Built-Up Land" (DOC 2022a). Therefore, no impacts associated with conversion of important Farmland would occur.

b) ***Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?***

No Impact. According to the California Department of Conservation's Williamson Act Parcel map for Riverside County, the project site is not located on or adjacent to any lands under a Williamson Act contract (DOC 2024).

According to the Housing Element of the City's General Plan, the City does not include any land that is currently an active Williamson Act contract (City of Norco 2021). Therefore, implementation of the proposed project would not result in the cancellation of an active contract and no impacts related to a Williamson Act contract would occur. Additionally, the project site is not zoned for agricultural use. Therefore, the proposed project would not result in impacts to agricultural-zoned areas. No impacts would occur.

c) ***Would the project 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))?***

No Impact. The project site is located on the Norco College campus and within a developed part of the City. According to the City's Zoning Map, the project site is not located on or adjacent to forest land, timberland, or timberland zoned Timberland Production (City of Norco 2012b). Therefore, no impacts associated with forest land or timberland would occur.

d) ***Would the project result in the loss of forest land or conversion of forest land to non-forest use?***

No Impact. The project site is located on the Norco College campus and within a developed part of the City. The project site is not located on or adjacent to forest land. No private timberlands or public lands with forests are located in the City. Therefore, no impact associated with the loss or conversion of forest land would occur.

e) ***Would the project 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?***

No Impact. As discussed previously in Sections 3.2(b) and 3.2(c), the project is located on the Norco College campus and within a developed part of the City. The project site is not located on or adjacent to any parcels identified as Important Farmland or forest land. In addition, the proposed project would not involve changes to the existing environment that would result in the indirect conversion of Important Farmland or forest land located away from the project site. Therefore, no impacts associated with the conversion of Farmland or forest land would occur.

# 3.3 Air Quality

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **III. AIR QUALITY** – Where available, the significance criteria established by the applicable air quality management district 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? | ☐ | ☐ | ☒ | ☐ |
| b) 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? | ☐ | ☐ | ☒ | ☐ |
| c) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ☒ | ☐ |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | ☐ | ☐ | ☒ | ☐ |

***a) Would the project conflict with or obstruct implementation of the applicable air quality plan?***

Less-Than-Significant Impact. The project site is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties and all of Orange County, and is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD).

The SCAQMD administers the SCAB's Air Quality Management Plan (AQMP), which is a comprehensive document outlining an air pollution control program for attaining the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The most recently adopted AQMP for the SCAB is the 2022 AQMP, which was adopted by the SCAQMD Governing Board on December 2, 2022. The 2022 AQMP provides actions, strategies, and steps needed to reduce air pollution emissions and meet ozone standards by 2037 (SCAQMD 2022). Specifically, the 2022 AQMP is focused on attaining the 2015 8-hour ozone standard of 70 parts per billion (SCAQMD 2022).

The purpose of a consistency finding with regard to the AQMP is to determine if a project is consistent with the assumptions and objectives of the 2022 AQMP, and if it would interfere with the region's ability to comply with federal and state air quality standards. SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3, of the SCAQMD CEQA Air Quality Handbook. These criteria are as follows (SCAQMD 1993):

- **Consistency Criterion No. 1:** Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- **Consistency Criterion No. 2:** Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

To address the first criterion, project-generated criteria air pollutant emissions have been estimated and analyzed for significance, which is summarized in Section 3.3(b). Detailed results of this analysis are included in Appendix A, Air Quality and Greenhouse Gas Emissions CalEEMod Output Files. As presented in Section 3.3(b), the proposed project would not generate construction or operational criteria air pollutant emissions that exceed the SCAQMD thresholds, and the project would therefore be consistent with Criterion No. 1.

The second criterion addresses whether the proposed project exceeds the assumptions in the AQMP or increments based on the year of project buildout and phase, which is determined through land use designation consistency. Regarding the potential of the proposed project to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed by determining consistency between the proposed project's land use designations and its potential to generate population growth. In general, projects are considered consistent with, and not in conflict with or obstructing implementation of, the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (SCAQMD 1993). SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, and employment by industry) developed by the Southern California Association of Governments (SCAG) for its 2020–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2020). SCAQMD uses this document, which is based on general plans for cities and counties in the SCAB, to develop the AQMP emissions inventory (SCAQMD 2022).[2] The SCAG RTP/SCS and associated Regional Growth Forecast are generally consistent with the local plans; therefore, the AQMP is generally consistent with local government plans.

The proposed project site is located on the Norco College campus at 2001 Third Street. As described in Section 2.2, Norco College consists of an approximately 141-acre parcel owned by the District that currently supports the existing Norco College campus buildings and facilities as well as the John F. Kennedy Middle College High School. The proposed project site is designated as Preservation and Development (PAD) in the City's General Plan, and the zoning designation is also PAD. The proposed project would include the construction of the proposed CHP+K Building to support Norco College's existing physical education program, and the project site is located within the boundaries of the existing Norco College campus. The proposed project is compatible with adjacent land uses and facilities for college uses. The proposed project would be consistent with the existing zoning of the project site, and as discussed in Section 2.3.2, Proposed

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[2] Information necessary to produce the emissions inventory for the SCAB is obtained from SCAQMD and other governmental agencies, including the California Air Resources Board (CARB), Caltrans, and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into its Travel Demand Model for estimating/projecting vehicle miles traveled (VMT) and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2020–2045 RTP/SCS are integrated in the 2022 Air Quality Management Plan (SCAQMD 2022).

Operation, the operation would result in six new full-time employees. This increase would be minimal and would not induce population growth. As such, the proposed project would not induce substantial employment growth inconsistent with projections for the region. Since the proposed project is not anticipated to result in residential population growth or generate an increase in employment that would conflict with existing employment or population projections, it would not conflict with or exceed the assumptions in the 2022 AQMP. Accordingly, the proposed project is consistent with the SCAG RTP/SCS forecasts used in the SCAQMD AQMP development.

In summary, based on the considerations presented for the two criteria, impacts relating to the proposed project's potential to conflict with or obstruct implementation of the applicable AQMP would be less than significant.

*b) Would the project 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?*

Less-Than-Significant Impact. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used to determine whether a project's individual emissions would have a cumulatively considerable contribution to air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003a).

A quantitative analysis was conducted to determine whether the proposed project might result in emissions of criteria air pollutants that may cause exceedances of the NAAQS or CAAQS, or cumulatively contribute to existing nonattainment of ambient air quality standards. Criteria air pollutants include ozone ($O_3$), nitrogen dioxide ($NO_2$), carbon monoxide (CO), sulfur dioxide ($SO_2$), particulate matter with an aerodynamic diameter less than or equal to 10 microns ($PM_{10}$, or coarse particulate matter), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$, or fine particulate matter), and lead. Pollutants that are evaluated herein include volatile organic compounds (VOCs) and oxides of nitrogen ($NO_x$), which are important because they are precursors to $O_3$, as well as CO, sulfur oxides ($SO_x$), $PM_{10}$, and $PM_{2.5}$.

Regarding NAAQS and CAAQS attainment status,[3] the SCAB is designated as a nonattainment area for federal and state $O_3$ and $PM_{2.5}$ standards (CARB 2023a; EPA 2021). The SCAB is also designated as a nonattainment area for state $PM_{10}$ standards; however, it is designated as an attainment area for federal $PM_{10}$ standards. The SCAB is designated as an attainment area for federal and state CO and $NO_2$ standards, as well as for state sulfur dioxide standards. Although the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard, it is designated as attainment for the state lead standard.[4]

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[3] An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare are set by the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB), respectively. Attainment = meets the standards; attainment/maintenance = meets the standards after a nonattainment designation; nonattainment = does not meet the standards.

[4] Re-designation of the lead NAAQS designation to attainment for the Los Angeles County portion of the SCAB is expected based on current monitoring data. The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

The proposed project would result in emissions of criteria air pollutants for which the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (EPA) have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause, or contribute to, violations of these standards. The SCAQMD CEQA Air Quality Significance Thresholds, as revised in March 2023, set forth quantitative emission significance thresholds for criteria air pollutants, which, if exceeded, would indicate the potential for a project to contribute to violations of the NAAQS or CAAQS. Table 3.3-1 lists the revised SCAQMD Air Quality Significance Thresholds (SCAQMD 2023).

### Table 3.3-1. SCAQMD Air Quality Significance Thresholds

| Criteria Pollutants Mass Daily Thresholds | | |
|---|---|---|
| **Pollutant** | **Construction (pounds/day)** | **Operation (pounds/day)** |
| VOC | 75 | 55 |
| $NO_x$ | 100 | 55 |
| CO | 550 | 550 |
| $SO_x$ | 150 | 150 |
| $PM_{10}$ | 150 | 150 |
| $PM_{2.5}$ | 55 | 55 |
| Lead[a] | 3 | 3 |
| **Toxic Air Contaminants and Odor Thresholds** | | |
| **Pollutant** | **Threshold** | |
| Toxic air contaminants[b] | Maximum incremental cancer risk ≥10 in 1 million<br>Cancer burden >0.5 excess cancer cases (in areas ≥1 in 1 million)<br>Chronic and acute hazard index ≥1.0 (project increment) | |
| Odor | Project creates an odor nuisance pursuant to SCAQMD Rule 402 | |

**Source:** SCAQMD 2023.

**Notes:** VOC = volatile organic compound; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District;

[a] The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the proposed project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

[b] Toxic air contaminants include carcinogens and noncarcinogens.

The project would result in a cumulatively considerable net increase for $O_3$, which is a nonattainment pollutant, if the proposed project's construction or operational emissions would exceed the SCAQMD VOC or $NO_x$ thresholds shown in Table 3.3-1. These emission-based thresholds for $O_3$ precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse $O_3$ impacts to occur) because $O_3$ itself is not emitted directly, and the effects of an individual project's emissions of $O_3$ precursors (i.e., VOCs and $NO_x$) on $O_3$ levels in ambient air cannot be determined through air quality models or other quantitative methods.

The California Emissions Estimator Model (CalEEMod) Version 2022.1.1.28 was used to estimate emissions from construction and operation of the project. CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with construction and operational activities from a variety of land use projects, including colleges. The following discussion quantitatively evaluates project-generated construction and operational emissions and impacts that would result from implementation of the proposed project.

### Construction Emissions

Construction of the proposed project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (e.g., off-road construction equipment, soil disturbance, and VOC off-gassing from architectural coatings) and off-site sources (e.g., vendor trucks, haul trucks, and worker vehicle trips). Specifically, entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in $PM_{10}$ and $PM_{2.5}$ emissions. Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOC, $NO_X$, CO, $PM_{10}$, and $PM_{2.5}$. Application of architectural coatings, such as exterior paint and other finishes, and application of asphalt pavement would also produce VOC emissions. Construction emissions can vary substantially from day to day depending on the level of activity; the specific type of operation; and, for dust, the prevailing weather conditions.

For purposes of estimating proposed project emissions, and based on information provided by the District, it is assumed that construction of the proposed project would commence in January 2025 and would last approximately 1 year.[5] Detailed construction equipment modeling assumptions are provided in Appendix A. The majority of the assumptions are based on CalEEMod default values. The analysis contained herein is based on the following schedule assumptions (duration of phases is approximate).

- Demolition (20 days)
- Site preparation (2 days)
- Grading (4 days)
- Building construction (200 days)
- Paving (10 days)
- Architectural coating (10 days)

General construction equipment modeling assumptions for the proposed project are provided in Table 2-1. Default values for equipment mix, horsepower, and load factor provided in CalEEMod were used for all construction equipment. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site 5 days per week, up to a maximum of 8 hours per day. The construction of the proposed project includes the import of 3,840 cubic yards of soil during the grading phase and export of 558 tons of building materials and pavement during the demolition phase. Detailed construction equipment modeling assumptions are provided in Appendix A.

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[5] The construction models were based on preliminary construction schedule estimates and assumed a start date of January 2025, which represented the earliest date construction would initiate. Because CalEEMod uses real dates (e.g., January 15, 2024) to calculate construction emissions, assumptions were made as to key dates for each phase. Although it was later determined that construction would begin in April 2025, the construction modeling is still representative of the project. The earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Emissions generated during construction (and operation) of the project are subject to the rules and regulations of the SCAQMD. Rule 403 (Fugitive Dust)[6] requires the implementation of measures to control the emission of visible fugitive/nuisance dust, such as wetting soils that would be disturbed. It was assumed that the active sites would be watered at least two times daily, resulting in an approximately 61% reduction of fugitive dust (CalEEMod default value), to represent compliance with SCAQMD standard dust control measures in Rule 403. The application of architectural coatings, such as exterior/interior paint and other finishes, and the application of asphalt pavement would also produce VOC emissions; however, the contractor is required to procure architectural coatings that comply with the requirements of SCAQMD's Rule 1113 (Architectural Coatings).[7]

Table 3.3-2 shows the estimated maximum daily construction emissions associated with the construction of the proposed project.

### Table 3.3-2. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

| | VOCs | $NO_x$ | CO | $SO_x$ | $PM_{10}$[a] | $PM_{2.5}$[a] |
|---|---|---|---|---|---|---|
| Construction Season/Year | Pounds per Day | | | | | |
| Summer Emissions | | | | | | |
| 2025 | 1.08 | 8.59 | 11.44 | 0.02 | 0.69 | 0.37 |
| Winter Emissions | | | | | | |
| 2025 | 53.35 | 23.74 | 17.39 | 0.08 | 5.90 | 2.73 |
| **Maximum of Summer or Winter Emissions** | **53.35** | **23.74** | **17.39** | **0.08** | **5.90** | **2.73** |
| *SCAQMD Threshold* | *75* | *100* | *550* | *150* | *150* | *55* |
| **Threshold Exceeded?** | **No** | **No** | **No** | **No** | **No** | **No** |

**Source:** SCAQMD 2023 (thresholds)
**Notes:** VOC = volatile organic compound; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District.
See Appendix A for detailed results.

[a] These estimates reflect control of fugitive dust (watering two times daily) required by SCAQMD Rule 403.

As shown in Table 3.3-2, the proposed project's maximum daily construction emissions would not exceed the SCAQMD thresholds for any criteria air pollutant.

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[6] SCAQMD Rule 403 requires implementation of various best available fugitive dust control measures for different sources for all construction activity sources within its jurisdictional boundaries. Dust control measures include, but are not limited to, maintaining stability of soil through pre-watering of the site prior to clearing, grubbing, cut and fill, and earthmoving activities; stabilizing soil during and immediately after clearing, grubbing, cut and fill, and other earthmoving activities; stabilizing backfill during handling and at completion of activity; and pre-watering material prior to truck loading and ensuring that freeboard exceeds 6 inches. While SCAQMD Rule 403 requires fugitive dust control beyond watering control measures, compliance with Rule 403 is represented in CalEEMod by assuming twice-daily watering of active sites (61% reduction in $PM_{10}$ and $PM_{2.5}$ [CAPCOA 2022]).

[7] SCAQMD Rule 1113, Architectural Coatings, requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

## Operational Emissions

Operation of the proposed project would generate VOC, $NO_x$, CO, $SO_x$, $PM_{10}$, and $PM_{2.5}$ emissions from area sources, energy sources, and mobile sources, which are discussed below. The project buildout year would follow construction, which would commence in January 2025 and would last approximately 1 year.

### Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products. Consumer product VOC emissions estimated in CalEEMod are based on the floor area of nonresidential buildings and on the default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers using during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emission factor is based on the VOC content of the surface coatings, and SCAQMD's Rule 1113 (Architectural Coatings) governs the VOC content for interior and exterior coatings. CalEEMod default values were assumed, including the surface area to be painted, the VOC content of architectural coatings, and a reapplication rate of 10% of area per year.

Landscape maintenance includes fuel combustion emissions from equipment such as lawnmowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use were estimated based on CalEEMod default values.

### Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage (non-hearth). Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gases (GHGs) in CalEEMod, since criteria pollutant emissions occur at the power plant, which is typically off site.

CalEEMod default values for energy consumption for the land use was applied for the project analysis. The energy use from nonresidential land uses calculated in CalEEMod are based on the California Commercial End-Use Survey database. Energy use in buildings (both natural gas and electricity) is divided by the program into end-use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the heating, ventilation, and air-conditioning [HVAC] system, water heating system, and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous "plug-in" uses).

### Mobile Sources

Operation of the project would generate criteria air pollutant emissions from mobile sources (vehicular traffic) as a result of staff, student, and employee trips to and from the proposed project site. The maximum weekday trip rates were taken from Section 3.17, Transportation, and were assumed to be 1,150 one-way trips per day. The maximum weekday trip rate was used to represent trips for weekdays and Saturdays. CalEEMod was used to estimate emissions from proposed vehicular sources (refer to Appendix A). CalEEMod default data, including trip characteristics, emissions factors, and trip distances, were conservatively used for the model inputs. Emission factors representing the vehicle mix and emissions were used to estimate emissions associated with vehicular sources.

Table 3.3-3 represents the maximum daily emissions associated with the first year that the project would be operational. The values shown are the maximum summer and winter daily emissions results from CalEEMod. Complete details of the emissions calculations are provided in Appendix A.

## Table 3.3-3. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

| | VOCs | $NO_x$ | CO | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| **Source** | Pounds per Day | | | | | |
| **Summer Emissions** | | | | | | |
| Mobile | 4.69 | 4.29 | 39.70 | 0.10 | 8.67 | 2.25 |
| Area | 1.75 | 0.02 | 2.45 | 0.00 | 0.00 | 0.00 |
| Energy | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | 0.06 |
| **Total** | **6.49** | **5.16** | **42.87** | **0.10** | **8.74** | **2.32** |
| **Winter Emissions** | | | | | | |
| Mobile | 4.38 | 4.59 | 33.41 | 0.09 | 8.67 | 2.25 |
| Area | 1.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Energy | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | 0.06 |
| **Total** | **5.78** | **5.45** | **34.13** | **0.10** | **8.73** | **2.31** |
| **Maximum of Summer or Winter Emissions** | **6.49** | **5.45** | **42.87** | **0.10** | **8.74** | **2.32** |
| *SCAQMD Threshold* | *55* | *55* | *550* | *150* | *150* | *55* |
| **Threshold Exceeded?** | **No** | **No** | **No** | **No** | **No** | **No** |

**Source:** Appendix A.

**Notes:** VOC = volatile organic compound; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur oxides; $PM_{10}$ = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District.

The values shown are the maximum summer or winter daily emissions results from CalEEMod. The total values may not add up exactly due to rounding.

As shown in Table 3.3-3, maximum daily operational emissions of VOC, $NO_x$, CO, $SO_x$, $PM_{10}$, and $PM_{2.5}$ generated by the proposed project would not exceed SCAQMD's significance thresholds.

As previously discussed, the SCAB has been designated as a federal nonattainment area for $O_3$ and $PM_{2.5}$, and a state nonattainment area for $O_3$, $PM_{10}$, and $PM_{2.5}$. However, as indicated in Tables 3.3-2 and 3.3-3, project-generated construction and operational emissions would not exceed the SCAQMD emission-based significance thresholds for VOCs, $NO_x$, $PM_{10}$, or $PM_{2.5}$. Therefore, the proposed project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant during construction and operation.

*c) Would the project expose sensitive receptors to substantial pollutant concentrations?*

Less-Than-Significant Impact. The project would not expose sensitive receptors to substantial pollutant concentrations, as evaluated below.

### Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, older people, and people with cardiovascular and chronic respiratory diseases. According to SCAQMD, sensitive receptors include sites such as residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993).

Norco College is located in a developed urban area of the City and is surrounded by residential communities to the west and south, the Naval Surface Warfare Center to the north, and commercial development to the east. Residential uses exist as close as 455 feet west of the proposed project site. Additionally, sensitive receptors near the project site include residential uses located to the west, the Norco College STEM Center Annex, a middle school to the southeast, and the Norco College central core area to the east. These sensitive receptors represent the nearest land uses with the potential to be impacted by construction and operation of the proposed project.

### Localized Significance Thresholds

SCAQMD recommends a localized significance threshold (LST) analysis to evaluate localized air quality impacts to receptors in the immediate vicinity of the project as a result of proposed project activities. The impacts were analyzed using methods consistent with those in the SCAQMD's Final LST Methodology (SCAQMD 2008a). The project is located within Source-Receptor Area 22 (Norco/Corona). LST pollutant screening level concentration data is currently published for 1-, 2-, and 5-acre sites for varying distances. The maximum number of acres disturbed on the peak day was estimated using the Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (SCAQMD 2014). During grading activities, fugitive dust can be generated from the movement of dirt on the project site. CalEEMod estimates dust from dozers moving dirt around, from graders or scrapers leveling the land, and from loading or unloading dirt into haul trucks. Each of those activities is calculated differently in CalEEMod, based on the number of acres traversed by the grading equipment. Only some pieces of equipment generate fugitive dust as calculated in CalEEMod. The CalEEMod manual identifies various equipment and the acreage disturbed in an 8-hour day.

The LST lookup tables that can be used to determine the maximum allowable daily emissions are provided at increments of 1 acre, 2 acres and 5 acres. Per the SCAQMD's Finalized LST Methodology, locations where an individual could remain for 24 hours (i.e., a residence, hospital, convalescent facility, hotel, etc.) should be considered to determine the threshold for $PM_{10}$ and $PM_{2.5}$ (SCAQMD 2008). For $PM_{10}$ and $PM_{2.5}$, the nearest receptor are residences 138 meters (455 feet) west of the project site, and as such, an interpolated threshold, between 100 and 200 meters, is used. For $NO_x$ and CO, distances where an individual could remain for 1 hour are considered. Existing educational facilities (i.e., Applied Technology

Building) north of the site is approximately 17 meters from the project's northern boundary. The SCAQMD recommends using a minimum distance of 25 meters. Therefore, a distance of 25 meters (82 feet) is used for $NO_x$ and CO.

Project construction activities would result in temporary sources of on-site criteria air pollutant emissions associated with off-road equipment exhaust and fugitive dust generation. According to the Final LST Methodology, "off-site mobile emissions from the project should not be included in the emissions compared to the LSTs" (SCAQMD 2008a). Trucks and worker trips associated with the proposed project are not expected to cause substantial air quality impacts to receptors along off-site roadways because emissions would be relatively brief in nature and would cease once the vehicles pass through the main streets. Therefore, off-site emissions from trucks and worker vehicle trips are not included in the LST analysis. The maximum daily on-site emissions generated during construction of the proposed project in each construction year are presented in Table 3.3-4 and are compared to the SCAQMD LSTs for Source-Receptor Area 22 to determine whether project-generated on-site emissions would result in potential LST impacts.

## Table 3.3-4. Construction LSTs Analysis

| Year | $NO_x$ | CO | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|
| | Pounds per Day (On Site)[a] | | | |
| Summer Emissions (2025) | 8.15 | 9.51 | 0.30 | 0.27 |
| Winter Emissions (2025) | 14.07 | 15.09 | 3.43 | 1.93 |
| **Maximum of Summer or Winter Emissions** | **14.07** | **15.09** | **3.43** | **1.93** |
| *SCAQMD LST Criteria* | *118.00* | *674.00* | *47.58* | *13.94* |
| **Threshold Exceeded?** | **No** | **No** | **No** | **No** |

**Source:** SCAQMD 2008a.

**Notes:** $NO_x$ = nitrogen dioxide; CO = carbon monoxide; $PM_{10}$ = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold.

See Appendix A for detailed results.

[a] Localized significance thresholds are shown for a 1-acre disturbed area corresponding to a distance to a receptor of 25 meters for NOx and CO, and an interpolated 138 meters for $PM_{10}$ and $PM_{2.5}$ in Source-Receptor Area 22 (Norco/Corona).

As shown in Table 3.3-4, proposed construction activities would not generate emissions in excess of site-specific LSTs; therefore, localized impacts of the proposed project would be less than significant.

### CO Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed *CO hotspots*. The transport of CO is extremely limited, as it disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections operating at an unacceptable level of service (E or worse is unacceptable). Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots. As provided in Section 3.17, the project would generate a low number of daily traffic and peak hour trips; therefore, it would not cause a measurable impact to the roadway segment and intersections in the area of the project site. The project would not create any significant traffic impacts, and a comprehensive traffic impact analysis for the proposed project would not be warranted. In addition, as noted in Section 3.17, local-serving community colleges that are consistent with the assumptions noted in the RTP/SCS can be presumed to have a less-than-significant impact. Because the proposed project is part of a local-serving community college and does not include a land use or zoning designation change, it is consistent with the RTP/SCS and therefore can be presumed to have a less-than-significant impact.

In addition, at the time that the SCAQMD Handbook (1993) was published, the SCAB was designated nonattainment under the CAAQS and NAAQS for CO. In 2007, the SCAQMD was designated in attainment for CO under both the CAAQS and NAAQS as a result of the steady decline in CO concentrations in the SCAB due to turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities. The SCAQMD conducted CO modeling for the 2003 AQMP[8] (SCAQMD 2003b) for the four worst-case intersections in the SCAB: (1) Wilshire Boulevard and Veteran Avenue, (2) Sunset Boulevard and Highland Avenue, (3) La Cienega Boulevard and Century Boulevard, and (4) Long Beach Boulevard and Imperial Highway. At the time the 2003 AQMP was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day. The 2003 AQMP also projected 8-hour CO concentrations at these four intersections for 1997 and from 2002 through 2005. From years 2002 through 2005, the maximum 8-hour CO concentration was 3.8 parts per million (ppm) at the Sunset Boulevard and Highland Avenue intersection in 2002; the maximum 8-hour CO concentration was 3.4 ppm at the Wilshire Boulevard and Veteran Avenue in 2002.

Accordingly, CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would be at least over 100,000 vehicles per day. The project's anticipated 1,150 daily trips is not of a magnitude expected to raise the traffic volumes at intersections near the proposed project site to the 100,000 vehicles per day that could result in a CO hotspot. Additionally, ambient CO levels are monitored at the Metropolitan Riverside County 1 (Source Receptor Area 23) air quality monitoring station located in Riverside County, which is nearest monitoring station to the project site and represents ambient air quality in the project area. Ambient CO levels monitored at this representative monitoring station indicate that the highest recorded 1-hour concentration of CO is 3.3 ppm (the CAAQS is 20 ppm) and highest 8-hour concentration is 1.8 ppm (the CAAQS is 9 ppm) during the past 3 years of available data (2021–2023) (SCAQMD 2024). As discussed above, the highest CO concentrations typically occur during peak traffic hours, so CO impacts calculated under peak traffic conditions represent a worst-case analysis. Even if combined with the concentrations presented in the 2003 AQMP for the four worst-case intersections in the SCAB with average daily traffic of approximately 100,000 vehicles per day, the CO concentrations at the air quality monitoring station would not exceed the 1-hour or 8-hour standards or result in a CO hotspot.

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[12] SCAQMD's CO hotspot modeling guidance has not changed since 2003.

[9] For context, in 2018, California consumed about 681 million barrels of oil, which equates to approximately 78.36 million gallons of petroleum a day. Based on these assumptions, about 58.77 billion gallons of petroleum would be consumed in California throughout the project construction period. Locally, approximately 3.3 billion gallons of petroleum would be consumed in Riverside County throughout the project construction period (CARB 2017b).

Based on these considerations, the proposed project would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. This conclusion is supported by the analysis in Section 3.17, which demonstrates that traffic impacts would be less than significant. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing. Based on these considerations, the proposed project would result in a less-than-significant impact to air quality with regard to potential CO hotspots.

### Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As discussed under the LST analysis, nearby sensitive receptors include residential uses as close as 455 feet west of the proposed project site, as well as the Norco College STEM Center Annex and a middle school to the southeast and the Norco College central core area to the east.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. SCAQMD recommends an incremental cancer risk threshold of 10 in 1 million. *Incremental cancer risk* is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology (OEHHA 2015). In addition, some TACs have noncarcinogenic effects. SCAQMD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) noncarcinogenic effects. TACs that would potentially be emitted during construction activities associated with the proposed project would be diesel particulate matter (DPM).

The greatest potential for TAC emissions during construction would be DPM emissions from heavy equipment operations and heavy-duty trucks during construction of the project, and potential health impacts to sensitive receptors could be associated with these emissions. DPM has established cancer risk factors and relative exposure values for long-term chronic health hazard impacts; however, no short-term, acute relative exposure level has been established for DPM. Total project construction would last approximately 1 year (11.5 months), after which project-related TAC emissions would cease. According to the Office of Environmental Health Hazard Assessment, health risk assessments (which determine the exposure of sensitive receptors to toxic emissions) should be based on a 30-year exposure period for the maximally exposed individual receptor; however, such assessments should also be limited to the period/duration of activities associated with the project. An approximately 1-year construction schedule represents a short duration of exposure (3% of a 30-year exposure period), while cancer and chronic risk from DPM are typically associated with long-term exposure. Thus, the project would not result in a long-term source of TAC emissions.

Exhaust $PM_{10}$ is typically used as a surrogate for DPM, and as shown in Tables 3.3-2 and 3.3-4, which present total $PM_{10}$ from fugitive dust and exhaust, project-generated construction $PM_{10}$ emissions are anticipated to be minimal. Furthermore, the project would not require the extensive operation of heavy-duty diesel construction equipment, which is subject to a CARB Airborne Toxics Control Measure for in-use diesel construction equipment to reduce DPM emissions and would not involve extensive use of diesel trucks, which are also subject to a CARB Airborne Toxics Control Measure. Due to this relatively short period of exposure and minimal DPM emissions on site, TACs generated during construction would not be expected to result in concentrations causing significant health risks.

No residual TAC emissions and corresponding cancer health risk are anticipated after construction, and no long-term sources of TAC emissions are anticipated during operation of the project. CARB has published the Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005), which identifies certain types of facilities or sources that may emit substantial quantities of TACs and therefore could conflict with sensitive land uses, such as "schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities." The Air Quality and Land Use Handbook is a guide for siting of new sensitive land uses, and CARB recommends that sensitive receptors not be located downwind of or in proximity to such sources to avoid potential health hazards. The enumerated facilities or sources include the following: high-traffic freeways and roads, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and large gas dispensing facilities. The proposed project does not include any of the above-listed land uses associated with generation of TAC emissions. For the reasons previously described, the project would not result in substantial exposure of sensitive receptors in the vicinity of the proposed project to TACs, and impacts would be less than significant.

### Health Effects of Criteria Air Pollutants

Construction and operation of the proposed project would generate criteria air pollutant emissions; however, the project would not exceed the SCAQMD mass-emission thresholds.

The SCAB is designated as nonattainment for $O_3$ for the NAAQS and CAAQS. Thus, existing $O_3$ levels in the SCAB are at unhealthy levels during certain periods. Health effects associated with $O_3$ include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2023b). The contribution of VOCs and $NO_x$ to regional ambient $O_3$ concentrations is the result of complex photochemistry. The increases in $O_3$ concentrations in the SCAB due to $O_3$ precursor emissions tend to be found downwind of the source location because of the time required for the photochemical reactions to occur. Further, the potential for exacerbating excessive $O_3$ concentrations would also depend on the time of year that the VOC emissions would occur, because exceedances of the $O_3$ NAAQS and CAAQS tend to occur between April and October, when solar radiation is highest. Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of $O_3$ precursors is speculative. Because the proposed project would not involve activities that would result in $O_3$ precursor emissions (i.e., VOCs or $NO_x$) that would exceed the SCAQMD thresholds, as shown in Tables 3.3-2 through 3.3-4, the proposed project is not anticipated to substantially contribute to regional $O_3$ concentrations and its associated health impacts during construction or operation.

In addition to $O_3$, $NO_x$ emissions contribute to potential exceedances of the NAAQS and CAAQS for $NO_2$. Health effects associated with $NO_x$ include lung irritation and enhanced allergic responses (CARB 2023b). As shown in Tables 3.3-2 through 3.3-4, proposed project construction and operations would not exceed the SCAQMD $NO_x$ threshold, and existing ambient $NO_2$ concentrations would be below the NAAQS and CAAQS. Thus, the proposed project is not expected to result in exceedances of the $NO_2$ standards or contribute to associated health effects.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2023b). CO hotspots were discussed previously as a less-than-significant impact. Thus, the proposed project's CO emissions would not contribute to the health effects associated with this pollutant.

The SCAB is designated as nonattainment for PM10 under the CAAQS and nonattainment for PM2.5 under the NAAQS and CAAQS. Health effects associated with PM10 include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2023b). As with O3 and NOx, and as shown in Tables 3.3-2 through 3.3-4, the proposed project would not generate emissions of PM10 or PM2.5 that would exceed SCAQMD's thresholds. Accordingly, the proposed project's PM10 and PM2.5 emissions are not expected to cause an increase in related regional health effects for this pollutant.

In summary, the proposed project would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health effects associated with those pollutants. Therefore, impacts would be less than significant.

***d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?***

**Less-Than-Significant Impact.** The evaluation of other emissions is focused on the potential for the project to generate odors. The occurrence and severity of potential odor impacts depend on numerous factors: the nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding facilities (SCAQMD 1993). The project entails operation of an educational training center, which is not a land use that is associated with the creation of unwanted odors. Therefore, project operations would result in an odor impact that is less than significant.

# 3.4 Biological Resources

| | Potentially Significant Impact | Less Than Significant Impact 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 Wildlife or U.S. Fish and Wildlife Service? | ☐ | ☒ | ☐ | ☐ |
| 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 Wildlife or U.S. Fish and Wildlife Service? | ☐ | ☐ | ☐ | ☒ |
| c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☒ | ☐ | ☐ |

The following discussion is based on the Biological Constraints Analysis for Districtwide Solar Planning Initiative Project, Riverside County, California prepared by Dudek in August 2021 (Dudek 2021), as well as additional survey work conducted in 2022. This assessment included a pre-field review of the latest available relevant literature, published research, maps, soil data, data on biological baselines, special-status vegetation communities, and special-status species distributions to determine those resources that have the potential to occur within the project site and surrounding 100-foot buffers (the study area). Dudek used the following definitions of special-status biological resources for the CEQA analysis:

- **Plants** – species listed as threatened or endangered under the federal and state Endangered Species Acts; species listed as rare, special, or Species of Special Concern as defined by the California Department of Fish and Wildlife (CDFW); and species with a California Rare Plant Rank of 1 or 2 as defined by the California Native Plant Society
- **Wildlife** – species listed as threatened or endangered under the federal and state Endangered Species Acts; Birds of Conservation Concern as defined by the U.S. Fish and Wildlife Service; and species with state designations such as Migratory Nongame Birds of Management Concern, California Species of Special Concern, Special Animals List species, and Fully Protected species as defined by the CDFW
- **Vegetation communities** – natural communities designated as sensitive by CDFW (Global Rank 1–3, State Rank 1–3) and riparian habitat

As part of the report, Dudek biologists Anna Cassady and Dylan Ayers conducted a general biological survey of the study area on July 16, 2021, with a follow-up survey conducted on May 23, 2022. A focused habitat assessment for Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) was conducted on September 15, 2021, by permitted biologist Dale Powell. All native and naturalized plant species encountered within the study area were identified and recorded. The potential for special-status plant and wildlife species to occur within the study area was evaluated based on the vegetation communities, soils present, and documented occurrences within 5 miles of the study area. In addition, an investigation of presence and distribution of jurisdictional waters of the United States regulated by the U.S. Army Corps of Engineers, jurisdictional waters of the state regulated by the Regional Water Quality Control Board (RWQCB), and jurisdictional streambed and associated riparian habitat regulated by CDFW was conducted.

### Vegetation Communities and Land Covers

The following vegetation communities and land cover types were observed throughout the study area: non-native grassland, brittle bush scrub, disturbed habitat, and urban/developed land. These were identified and mapped within the study area based on general characteristics and/or species composition.

#### Non-Native Grassland

California non-native grassland or California annual grassland is dominated by annual grasses and herbs in the ground layer, including bromes (*Bromus* spp.), filaree (*Erodium* spp.), mustards (*Brassica* spp.), and oats (*Avena* spp.). Although annual brome grasses and wild oats are the dominant plant species in this community composition, native annual forbs also constitute significant cover.

Neither CDFW (2022) nor the California Native Plant Society (CNPS 2022) gives California annual grassland/annual brome grasslands a rarity ranking because it is a non-native plant community that is widespread.

#### Brittle Brush Scrub

The brittle bush scrub alliance community includes brittle bush (*Encelia farinosa*) as a dominant or co-dominant species in the shrub canopy, intermixed with shrubs and herbaceous plant species including white sage (*Saliva apiana*), California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), and chapparal yucca (*Hesperoyucca whipplei*). Some trees or tall shrubs may appear in small numbers, though average community height is less than 2 meters (CNPS 2022).

CDFW ranks brittle bush scrub as a G5S4 alliance. This ranking indicates that globally and within California the alliance is widespread, abundant, and secure (CDFW 2022).

#### Urban/Developed

Urban or developed land covers refer to areas that have been constructed on or otherwise physically altered to the point where vegetation is no longer present. Urban or developed areas are characterized by permanent or semi-permanent structures, hardscapes, and landscaped areas that require irrigation.

Developed land is not a listed vegetation community under the California Natural Community List (CDFW 2022), but it is used in this report because it best describes what was observed in the field. As such, this community is not globally or state-ranked, and is not considered a sensitive natural community.

#### Disturbed Habitat

Disturbed habitat refers to areas where soils have been recently or repeatedly disturbed by grading, compaction, or clearing of vegetation. Structures are typically not present within disturbed habitats, and these areas provide marginal value for most plant and wildlife species. When vegetated, disturbed habitat supports predominantly non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance.

Disturbed habitat is not a listed vegetation community under the California Natural Community List (CDFW 2022), but it is used in this report because it best describes what was observed in the field. As such, this community is not globally or state ranked, and is not considered a sensitive natural community.

### Special-Status Plants

No plant species listed or proposed for listing as rare, threatened, or endangered by either CDFW or the U.S. Fish and Wildlife Service were detected within the study area. The study area is not within Critical Habitat for any special-status plant species (USFWS 2022). There are no federally or state-listed as endangered plant species with a potential to occur in the study area. Due to the absence or marginal-quality of suitable habitat within the study area, all non-listed special-status species were determined to either have low potential or were not expected to occur within the study area.

### Special-Status Wildlife

No wildlife species listed or proposed for listing as rare, threatened, or endangered by either CDFW or the U.S. Fish and Wildlife Service were detected within the study area. The study area is not within critical habitat for any special-status wildlife species (USFWS 2022). Based on the results of the literature review and database searches, 54 special-status wildlife species have been documented within the region. For each species listed, a determination was made regarding potential use of the study area based on information gathered during the field reconnaissance, known habitat preferences, and knowledge of the species' relative distributions in the area.

One federally endangered species, the Delhi Sands flower-loving fly, has a low potential to occur in the study area. Burrowing owl (*Athene cunicularia*), a CDFW Species of Special Concern, has a moderate potential to occur. Due to the absence or marginal-quality of suitable habitat within the study area, all other non-listed special-status species were determined to either have low potential or were not expected to occur within the study area.

### Jurisdictional Waters

No features were observed at the Norco College study area. No blue line streams or waterways are mapped on U.S. Geological Survey topographic maps for the study area. No areas potentially supporting vernal pools, ephemeral ponds, or wetlands were observed during the survey. The study area does not contain topographic low points, clay soils, bedrock, or other poorly drained soils typically associated with vernal pools, and vernal pool plant species were not observed.

***a) Would the project 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?***

Less-Than-Significant Impact with Mitigation Incorporated. The project has the potential to impact candidate, sensitive, or special-status species, as discussed below. With the incorporation of mitigation, impacts are less than significant.

### Special-Status Plant Species

No special-status plant species were detected within the study area during the general biological survey. Furthermore, no federally or state-listed as endangered plant species have potential to occur in the study area, and all non-listed special-status species were determined to either have low potential or were not expected to occur within the study area. As such, impacts to special-status plants are not expected to occur.

### Special-Status Wildlife

No special-status wildlife species were detected within the study area during the general biological survey.

One federally endangered species, Delhi Sands flower-loving fly, has a low potential to occur in the study area. Burrowing owl, a CDFW Species of Special Concern, has a moderate potential to occur. Due to the absence or marginal-quality of suitable habitat within the study area, all other non-listed special-status species were determined to either have low potential or were not expected to occur within the study area.

#### Delhi Sands Flower-Loving Fly

Norco College contains mapped Delhi series soils, which can provide potential habitat for the federally listed endangered Delhi Sands flower-loving fly. According to the focused habitat assessment conducted by permitted biologist Dale Powell (Dudek 2021), the portion of the study area within Norco College contains minimal indicator plants for Delhi Sands flower-loving fly and has been degraded through disking, causing organic matter to mix with the Delhi series soil. As a result, the native soils do not remain and the study area within Norco College does not contain suitable habitat for Delhi Sands flower-loving fly. As such, no impacts are expected to occur.

### Nesting Birds

The study area contains trees, shrubs, and bare ground that would potentially be used by migratory birds for breeding. Direct impacts to migratory nesting birds must be avoided to comply with the Migratory Bird Treaty Act (16 USC 703–712) and California Fish and Game Code. Indirect impacts to nesting birds from short-term, construction-related noise could result in decreased reproductive success or abandonment of an area as nesting habitat if construction were conducted during the breeding/nesting season (i.e., January through August). Direct and indirect impacts to nesting birds are significant absent mitigation. Implementation of MM-BIO-1 would ensure nesting birds would not be impacted by project construction activities during nesting season. As such, impacts to nesting birds would be less than significant with mitigation incorporated.

### Burrowing Owl

Burrowing owl is a Species of Special Concern and has a moderate potential to occur in the study area. As such, project implementation could result in direct impacts on burrowing owl in the form of habitat destruction, and potential death, injury, or harassment of nesting birds, their eggs, and their young. Injury or mortality occurs most frequently during the vegetation clearing stage of construction and affects eggs, nestlings, and recently fledged young that cannot safely avoid equipment. Indirect impacts to burrowing owl include vibration, excess noise, chemical pollution, fugitive dust, and increased human presence. Direct and indirect impacts to burrowing owl are potentially significant, absent mitigation.

Direct and/or indirect impacts to burrowing owl would be avoided and minimized through implementation of mitigation measure (MM) BIO-2A. This mitigation measure requires pre-construction surveys, establishment of exclusion buffers around occupied burrows or burrow complexes (buffer width is dependent upon breeding versus non-breeding season), and burrowing owl-specific monitoring throughout construction to ensure full avoidance of owls.

Should it be determined that full avoidance of occupied burrowing owl burrows or burrow complexes is not possible, MM-BIO-2B requires preparation of a burrowing owl relocation and mitigation plan that would include methods for passive relocation, description of surrounding suitable habitat conditions, monitoring and management requirements for replacement burrow sites in coordination with CDFW, reporting requirements, and compensatory mitigation, if required by CDFW. In addition, implementation of MM-BIO-3, which requires clear marking of work limits, measures to ensure toxicants are kept within the development footprint, and measures to ensure that trash and debris are disposed of properly, would avoid and minimize indirect impacts to burrowing owl. With implementation of MM-BIO-2A, MM-BIO-2B, and MM-BIO-3, impacts to burrowing owl would be less than significant with mitigation incorporated.

**MM-BIO-1** **Nesting Birds.** In conformance with the requirements of the Migratory Bird Treaty Act and California Fish and Game Code, should vegetation clearing, cutting, or removal activities be required during the nesting season (i.e., January 1 through August 31), a qualified biologist shall conduct a nesting bird survey within 72 hours of such activities. The survey shall consist of full coverage of the project footprint and an appropriate buffer, as determined by the biologist. If no occupied nests are found, no additional steps shall be required. If nests are found that are being used for breeding or rearing young, the biologist shall recommend further avoidance measures, including establishing an appropriate buffer around the occupied nest. The buffer shall be determined by the biologist based on the species present, surrounding habitat, and existing environmental setting/level of disturbance. No construction or ground-disturbing activities shall be conducted within the buffer until the biologist has determined that the nest is no longer being used for breeding or rearing.

MM-BIO-2A **Burrowing Owl Avoidance and Mitigation Measures**. Prior to the initiation of construction activities, a qualified biologist shall conduct pre-construction surveys for burrowing owl to determine presence/absence of the species. The survey shall be conducted in accordance with the most current and applicable California Department of Fish and Wildlife (CDFW) protocol within 30 days of site disturbance. If burrowing owls are not detected during the clearance survey, no additional mitigation is required. Pre-construction surveys shall include suitable burrowing owl habitat within the project footprint and within 500 feet of the project footprint (or within an appropriate buffer as required in the most recent guidelines and where legal access to conduct the survey exists). If burrowing owls are not detected during the clearance survey, no additional mitigation is required.

If burrowing owl is located, occupied burrowing owl burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either the birds have not begun egg laying and incubation, or that juveniles from the occupied burrows are foraging independently and capable of independent survival. Disturbance buffers shall be implemented by a qualified biologist in accordance with the recommendations included in the Staff Report on Burrowing Owl Mitigation (CDFW 2012). A biologist shall be contracted to perform monitoring during all construction activities approximately every other day. The definitive frequency and duration of monitoring shall be dependent on whether it is the breeding versus non-breeding season and the efficacy of the exclusion buffers, as determined by a qualified biologist and in coordination with CDFW.

If burrowing owl is detected during the non-breeding season (September 1 through January 31) or confirmed to not be nesting, a non-disturbance buffer between the project activities and the occupied burrow shall be installed by a qualified biologist in accordance with the recommendations included in the Staff Report on Burrowing Owl Mitigation (CDFW 2012).

MM-BIO-2B **Burrowing Owl Relocation and Mitigation Plan**. If avoidance is not possible, either directly or indirectly, a burrowing owl relocation and mitigation plan shall be prepared and submitted for approval by CDFW. Once approved, the plan would be implemented to relocate non-breeding burrowing owls from the project site. The plan shall include the following:

- Confirmation with site surveillance that burrow/burrows are vacated prior to burrow scoping
- Information on scope type and timing of scoping events
- Metrics to determine vacancy and burrow excavation timing
- Details regarding how burrow/burrows will be excavated, including proposed tools

- Removal of other potential surrogate burrows and/or refugia within the disturbance footprint
- Photo documentation
- Metrics for determining relocation success
- Monitoring to evaluate success criteria and implement remedial measures, as necessary
- Details regarding how the project will continue to maintain an inhospitable environment for burrowing owl during construction activities and project operations

The project applicant shall submit at least one burrowing owl pre-construction survey report to the satisfaction of CDFW to document compliance with this mitigation measure. For the purposes of this mitigation measure, “qualified biologist” is a biologist who meets the requirements set forth in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012).

### MM-BIO-3 General Avoidance and Minimization Measures

The following avoidance and minimization measures shall be implemented during project construction activities.

- Construction limits shall be clearly flagged so that adjacent native vegetation is avoided.
- Construction work and operations and maintenance areas shall be kept clean of debris, such as trash and construction materials. Fully covered trash receptacles that are animal-proof shall be installed and used during construction to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash contained within the receptacles shall be removed from the work area at least once a week.
- Staging and storage areas for spoils, equipment, materials, fuels, lubricants, and solvents shall be located within the designated impact area or adjacent developed areas.
- Best management practices shall be implemented to ensure water quality in existing drainages would not be affected during Project activities.

***b) Would the project 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?***

No Impact. The study area does not contain riparian vegetation communities or any vegetation communities identified as sensitive according to CDFW (CDFW 2022). As a result, no direct or indirect impacts to sensitive vegetation communities are expected to occur.

***c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

No Impact. The study area does not contain wetland waters of the United States or state. The study area does not contain potential non-wetland waters of the United States and non-wetland waters of the state. Therefore, no impacts would occur.

***d) Would the project 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?***

No Impact. The project site is not located within an area that functions as a wildlife movement or migration corridor. As such, the project would not constrain natural wildlife movement in its vicinity, and impacts are not expected to occur.

***e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

No Impact. The project is located in the City of Norco. As proposed, the project would not conflict with any local policies or ordinances protecting biological resources in the City of Norco. Therefore, no impact would occur to any biological resources protected by a local ordinance.

***f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

Less-Than-Significant Impact with Mitigation Incorporated. The project is located within the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) area (RCA 2003). The District is not a permittee of the MSHCP; therefore, projects under its authority are not subject to the MSHCP, nor are said projects granted any take authorization unless the District chooses to apply for take under the Participating Special Entity Process. Nevertheless, the Regional Conservation Authority MSHCP Information Map (RCA 2022) was reviewed for requirements that could result in a potential conflict between the project and the MSHCP. The project footprint is not located within a Criteria Cell. The project footprint is within a burrowing owl habitat assessment area, but not in a survey area where habitat assessments for narrow endemic plants, criteria area plants, small mammals, and/or amphibians are required (RCA 2022). For plant and wildlife species that are covered under the MSHCP, impacts are fully mitigated for covered activities within Riverside County by payment of the Development Mitigation fee and through consistency with MSHCP Section 6 policies and requirements. Although the District is not a Permittee in the MSHCP or required to be consistent with the MSHCP, implementation of mitigation as part of the project is beneficial to the MSHCP. Specifically, MM-BIO-2A, MM-BIO-2B, and MM-BIO-3 as proposed are consistent with the MSHCP requirements for burrowing owl. In addition, MM-BIO-3 is consistent with the MSHCP requirements for Section 6.1.2 Riparian/Riverine and Vernal Pool Resources and Section 6.1.4 Urban/Wildlands Interface Guidelines.

Because there would be no conflicts with the Western Riverside MSHCP, and because MM-BIO-2A, MM-BIO-2B, and MM-BIO-3 would be implemented, impacts would be less than significant with mitigation incorporated.

# 3.5 Cultural Resources

| | Potentially Significant Impact | Less Than Significant Impact 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 pursuant to § 15064.5? | ☐ | ☐ | ☒ | ☐ |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | ☐ | ☒ | ☐ | ☐ |
| c) Disturb any human remains, including those interred outside of dedicated cemeteries? | ☐ | ☒ | ☐ | ☐ |

The following analysis is based on the Archaeological Resources Inventory Letter Report for the Norco College Center for Human Performance and Kinesiology Project, Riverside County, California, prepared by Dudek in March 2022, and included as Appendix B.

***a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?***

Less-Than-Significant Impact. As discussed in CEQA Guidelines Section 15064.5, a historic resource need not only include such resources already identified as being listed on the California Register of Historical Resources, but may include such resources deemed by the lead agency to be eligible for such a listing. It can be a structure, building, place, or area that may have been associated with an event or person, or it may represent distinctive characteristics of a type, period, region, or method of construction; or it may reveal additional information important to our understanding of history. Thus, there are any number of potential qualities that would identify an area as a potential historic resource.

A California Historical Resources Information System (CHRIS) records search was conducted at the Eastern Information Center (EIC) at the University of California, Riverside to assist in the identification of historical resources in proximity of the project site. The EIC search included the EIC collection of mapped prehistoric, historical and built-environment resources, technical reports, archival resources, ethnographic references, and Department of Parks and Recreation Site Records. Additional consulted sources included the National Register of Historic Places, California Inventory of Historical Resources/California Register of Historical Resources, listed Office of Historic Preservation Archaeological Determinations of Eligibility, California Points of Historical Interest, California Historical Landmarks, and Caltrans Bridge Survey information. Additionally, the Cultural Resources Study prepared for the project included a review of historic aerial photographs and an intensive pedestrian cultural survey of the project area (Appendix B).

The CHRIS records search identified 15 previously recorded cultural resources within 1 mile of the proposed project site. These resources consist of 5 prehistoric sites and 10 historic-age built environment resources. The CHRIS records search did not identify any previously recorded cultural resources within the project site (Appendix B).

During the field survey of project site, it was apparent that the area has been substantially disturbed by repeated cultivation of the property over time, and the field survey did not reveal any historic-era resources. Additionally, the records search for the project did not identify any previously recorded cultural resources within the project site. Therefore, impacts to historic-era resources would be less than significant.

***b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?***

Less-Than-Significant Impact with Mitigation Incorporated. As previously discussed in Section 3.5(a), the Archaeological Resources Inventory Report prepared for the project included a records search at the EIC, review of historic aerial photographs, and an intensive pedestrian cultural survey of the project area (Appendix B).

The Archaeological Resources Inventory Letter Report did not identify any archaeological resources on the project site. The analysis revealed that the potential for unrecorded cultural resources to exist within the project site is considered low based on the following factors: (1) though the topography and natural features that surround the project site are conducive to supporting prehistoric occupation, archival review and existing project site conditions determined that the proposed project site has been routinely disturbed since at least the mid-twentieth century and has remained undeveloped land for at least 75 years (with the exception of the extant Center for Applied and Competitive Technologies to the southeast of the project site); (2) although the data provided by the CHRIS records search indicates that the surrounding area is sensitive for the presence of prehistoric archaeological sites, the previously recorded resources primarily consist of bedrock milling stations with no associated midden or artifacts; (3) it is unlikely that such sites would be encountered within the project site as no topographical features such as water sources or bedrock outcrops are present that would suggest an area that may have been attractive to prehistoric inhabitants; (4) results of the study indicate that no built environment structures or associated facilities occupied the project site since at least the late twentieth century, suggesting that the possibility of buried historic-age archaeological deposits associated with once extant structures is considered low; and (6) no cultural material was identified within the project site as a result of the pedestrian survey as the site has been subject to repeated disking/tilling that has likely disturbed the upper 18 inches of soil. Given these factors, the project site is considered relatively low sensitivity for the presence of cultural resources (Appendix B).

Although the overall potential for archaeological resources to exist within the project site is considered low, it is still possible that unknown intact archaeological resources could be encountered subsurface during ground-disturbing activities within native soils. Mitigation measure MM-CUL-1 would be implemented to ensure proper treatment of any unknown cultural resources that may be encountered as a result of project construction. These measures would ensure the proper treatment of any archaeological resources and human remains encountered during ground-disturbing activities. With the proper implementation of the prescribed measures, the potential impact to archaeological resources is considered to be less then significant.

**MM-CUL-1** **Inadvertent Discovery Clause.** In the event that potential prehistoric or historic-era archaeological resources and/or Tribal Cultural Resources (sites, features, or artifacts) are exposed during construction activities for the project, all construction work occurring not less than 50 feet of the find shall immediately stop and a qualified archaeologist must be notified immediately to assess the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under the California Environmental Quality Act (CEQA), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work (e.g., preparation of an archaeological treatment plan, testing, or data recovery) may be warranted. If Native American resources are discovered or are suspected, each of the consulting tribes for the project will also be notified.

***c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?***

**Less-Than-Significant Impact with Mitigation Incorporated.** As discussed in Section 3.5(b), there are no previously recorded cultural resources on the project site. Since the site has been previously disturbed, ground-disturbing activities associated with demolition and construction of the proposed structures are unlikely to uncover previously unknown archaeological resources. However, if human skeletal remains are discovered during ground-disturbing activities, California Health and Safety Code Section 7050.5 states that the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she must notify the Native American Heritage Commission (NAHC) in Sacramento within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant must complete his or her inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition for the human remains.

Mitigation measure MM-CUL-2 would ensure the proper treatment of any human remains encountered during ground disturbing activities. With the proper implementation of MM-CUL-2, the potential impact to human remains is less then significant.

**MM-CUL-2** **Unanticipated Discovery of Human Remains.** In the event that human remains are inadvertently encountered during construction activities, the remains and associated resources shall be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and California Environmental Quality Act Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined, within 2 working days of notification of the discovery, if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the Native American Heritage Commission (NAHC) within 24 hours. The NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant must then provide recommendations within 48 hours of being granted access to the site. The most likely descendant would then determine, in consultation with the property owner, the disposition of the human remains.

# 3.6 Energy

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **VI. Energy** – Would the project: | | | | |
| a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | ☐ | ☐ | ☒ | ☐ |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | ☐ | ☐ | ☒ | ☐ |

***a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?***

Less-Than-Significant Impact. The electricity and natural gas used for construction of the proposed project would be temporary, would be substantially less than that required for project operation, and would have a negligible contribution to the project's overall energy consumption. Additionally, although natural gas and electricity usage would increase due to the implementation of the project, the project's energy efficiency would meet the current Building Energy Efficiency Standards (Title 24). Although the project would see an increase in petroleum use during construction and operation, vehicles would use less petroleum due to advances in fuel economy and potential reduction in vehicle miles traveled (VMT) over time.

## Construction

### Electricity

Temporary electric power for as-necessary lighting and electronic equipment, such as computers, inside temporary construction trailers would be provided by Southern California Edison. The electricity used for such activities would be temporary, would be substantially less than that required for project operation, and would have a negligible contribution to the project's overall energy consumption.

### Natural Gas

Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below in the Petroleum subsection. Any minor amounts of natural gas that may be consumed as a result of project construction would be substantially less than that required for project operation and would have a negligible contribution to the project's overall energy consumption.

### Petroleum

Heavy-duty construction equipment associated with demolition and construction activities for construction would rely on diesel fuel, as would vendor trucks involved in delivery of materials to the project site. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel to and from the site in gasoline-powered light-duty vehicles.

Heavy-duty construction equipment of various types would be used during each phase of project construction. Appendix A lists the assumed equipment usage for each phase of construction.

Fuel consumption from construction equipment was estimated by converting the total carbon dioxide ($CO_2$) emissions from each construction phase to gallons using the conversion factors for $CO_2$ to gallons of gasoline or diesel. Construction is estimated to occur in 2025 based on the construction phasing schedule. The conversion factor for gasoline is 8.78 kilograms per metric ton (kg/MT) $CO_2$ per gallon, and the conversion factor for diesel is 10.21 kg/MT $CO_2$ per gallon (The Climate Registry 2021). The estimated diesel fuel usage from construction equipment for the project is shown in Table 3.6-1.

**Table 3.6-1. Construction Equipment Diesel Demand**

| Phase | Pieces of Equipment | Equipment $CO_2$ (MT) | kg/$CO_2$/ Gallon | Gallons |
|---|---|---|---|---|
| Demolition | 5 | 22.62 | 10.21 | 2,215.54 |
| Site Preparation | 3 | 11.31 | 10.21 | 1,108.00 |
| Grading | 4 | 4.45 | 10.21 | 436.20 |
| Building Construction | 7 | 153.98 | 10.21 | 15,081.57 |
| Paving | 5 | 4.50 | 10.21 | 440.59 |
| Architectural Coating | 1 | 0.61 | 10.21 | 59.32 |
|  |  |  | **Total** | **19,341.21** |

**Sources:** Appendix A (pieces of equipment and equipment $CO_2$); The Climate Registry 2021 (kg/$CO_2$/gallon).
**Notes:** $CO_2$ = carbon dioxide; MT = metric ton; kg = kilogram.

Fuel consumption from worker-, vendor-, and haul-truck trips are estimated by converting the total $CO_2$ emissions from each construction phase to gallons using the conversion factors for $CO_2$ to gallons of gasoline or diesel. Worker vehicles are assumed to be gasoline, and vendor/hauling vehicles are assumed to be diesel. Calculations for total worker-, vendor-, and haul-truck fuel consumption are provided in Tables 3.6-2 through 3.6-4.

## Table 3.6-2. Construction Worker Gasoline Demand

| Phase | Trips | Vehicle MT $CO_2$ | kg/$CO_2$/ Gallon | Gallons |
|---|---|---|---|---|
| Demolition | 270 | 1.61 | 8.78 | 183.02 |
| Site Preparation | 15 | 0.09 | 8.78 | 10.17 |
| Grading | 40 | 0.24 | 8.78 | 27.11 |
| Building Construction | 4,728 | 28.14 | 8.78 | 3,204.87 |
| Paving | 135 | 0.80 | 8.78 | 91.51 |
| Architectural Coating | 57 | 0.34 | 8.78 | 38.83 |
|  |  |  | **Total** | **3,555.52** |

**Sources:** Appendix A (trips and vehicle $CO_2$); The Climate Registry 2021 (kg/$CO_2$/gallon).
**Notes:** MT = metric ton; $CO_2$ = carbon dioxide; kg = kilogram.

## Table 3.6-3. Construction Vendor Truck Diesel Demand

| Phase | Trips | Vehicle MT $CO_2$ | kg/$CO_2$/ Gallon | Gallons |
|---|---|---|---|---|
| Demolition | 4 | 1.11 | 10.21 | 108.77 |
| Site Preparation | 4 | 0.11 | 10.21 | 10.88 |
| Grading | 4 | 0.22 | 10.21 | 21.75 |
| Building Construction | 10 | 27.76 | 10.21 | 2,719.19 |
| Paving | 4 | 0.56 | 10.21 | 54.38 |
| Architectural Coating | 4 | 0.56 | 10.21 | 54.38 |
|  |  |  | **Total** | **2,969.36** |

**Sources:** Appendix A (trips and vehicle $CO_2$); The Climate Registry 2021 (kg/$CO_2$/gallon).
**Notes:** MT = metric ton; $CO_2$ = carbon dioxide; kg = kilogram.

## Table 3.6-4. Construction Haul Truck Diesel Demand

| Phase | Trips | Vehicle MT $CO_2$ | kg/$CO_2$/ Gallon | Gallons |
|---|---|---|---|---|
| Demolition | 8 | 5.00 | 10.21 | 489.96 |
| Site Preparation | 0 | 0.00 | 10.21 | 0 |
| Grading | 118.75 | 14.85 | 10.21 | 1,454.57 |
| Building Construction | 0 | 0 | 10.21 | 0 |
| Paving | 0 | 0 | 10.21 | 0 |
| Architectural Coating | 0 | 0 | 10.21 | 0 |
|  |  |  | **Total** | **1,944.53** |

**Sources:** Appendix A (trips and vehicle $CO_2$); The Climate Registry 2021 (kg/$CO_2$/gallon).
**Notes:** MT = metric ton; CO2 = carbon dioxide; kg = kilogram.

In summary, construction of the project is anticipated to consume approximately 3,556 gallons of gasoline and 24,255 gallons of diesel over the course of one year.[9] The proposed project would be required to comply with CARB's Airborne Toxics Control Measure that restricts heavy-duty diesel vehicle idling time to 5 minutes. Furthermore, the proposed project would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation, which requires the vehicle fleet to reduce emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emissions Control Strategies. Therefore, impacts associated with construction would be less than significant.

### Operation

#### Electricity

The project would require electricity for multiple purposes at buildout, including cooling, lighting, appliances, and various equipment in the training center. Additionally, the supply, conveyance, treatment, and distribution of water would indirectly result in electricity usage. Electricity consumption associated with project operation is based on the CalEEMod outputs presented in Appendix A.

CalEEMod default values for energy consumption for the college were applied for the project analysis. The energy use from nonresidential land uses is calculated in CalEEMod based on the California Commercial End-Use Survey database. Energy use in buildings (both natural gas and electricity) is divided by the program into end-use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the HVAC system, water heating system, and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous "plug-in" uses).

Title 24 of the California Code of Regulations serves to enhance and regulate California building standards. The most recent amendments to Title 24, Part 6, referred to as the 2022 standards, became effective on January 1, 2023. According to these estimations, the proposed project would consume approximately 688,719 kilowatt-hours (kWh) per year during operation.[10]

#### Natural Gas

The operation would require natural gas for various purposes, including water heating and natural gas appliances. Natural gas consumption associated with operation is based on the CalEEMod outputs presented in Appendix A.

CalEEMod default values for energy consumption for Norco College were applied for the project analysis. The energy use from nonresidential land uses is calculated in CalEEMod based on the California Commercial End-Use Survey database. Energy use in buildings (both natural gas and electricity) is divided by the program into end-use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the HVAC system, water heating system, and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous "plug-in" uses).

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[9] For context, in 2018, California consumed about 681 million barrels of oil, which equates to approximately 78.36 million gallons of petroleum a day. Based on these assumptions, about 58.77 billion gallons of petroleum would be consumed in California throughout the project construction period. Locally, approximately 3.3 billion gallons of petroleum would be consumed in Riverside County throughout the project construction period (CARB 2017b).

[10] For context, in 2020, California used approximately 280 billion kWh of electricity (EIA 2022). Locally, in 2020 nonresidential electricity demand in Riverside County was approximately 8 billion kWh (CEC 2022a).

Title 24 of the California Code of Regulations serves to enhance and regulate California's building standards. As stated previously, CalEEMod uses standards from Title 24, Part 6 (referred to as the 2022 standards), which became effective on January 1, 2023. According to these estimations, the proposed project would consume approximately 3,171,232 thousand British thermal units (kBtu) per year.[11]

### Petroleum

During operations, the majority of fuel consumption resulting from the project would involve the use of motor vehicles by students and employees traveling to and from the project site.

Petroleum fuel consumption associated with motor vehicles traveling to and from the project site is a function of the VMT as a result of project operation. As shown in Appendix A and as discussed in Section 3.3, Air Quality, and Section 3.8, Greenhouse Gas Emissions, the annual VMT attributable to the proposed project is expected to be approximately 3,795,096 VMT. Similar to the construction worker and vendor trips, fuel consumption by students and facility is estimated by converting the total $CO_2$ emissions from operation of the project to gallons using the conversion factors for $CO_2$ to gallons of gasoline or diesel. Based on the annual fleet mix provided in CalEEMod, 94.74% of the fleet ranges from light-duty to medium-duty vehicles and motorcycles, which are assumed to run on gasoline. The remaining 5.26% of vehicles represent medium-heavy duty to heavy-duty vehicles and buses and are assumed to run on diesel.

Calculations for annual mobile source fuel consumption are provided in Table 3.6-5 (gasoline) and Table 3.6-6 (diesel).

## Table 3.6-5. Annual Mobile Source Gasoline Demand

| | Vehicle MT $CO^2$ | kg/$CO^2$/Gallon | Gallons |
|---|---|---|---|
| Operation | 1,308.96 | 8.78 | 149,084.08 |

**Sources:** Appendix A (trips and vehicle $CO_2$); The Climate Registry 2021 (kg/$CO_2$/gallon).
**Notes:** MT = metric ton; $CO_2$ = carbon dioxide; kg = kilogram.

## Table 3.6-6. Annual Mobile Source Diesel Demand

| | Vehicle MT CO2 | kg/$CO^2$/Gallon | Gallons |
|---|---|---|---|
| Operation | 51.49 | 10.21 | 5,043.17 |

**Sources:** Appendix A (trips and vehicle $CO_2$); The Climate Registry 2021 (kg/$CO_2$/gallon).
**Notes:** MT = metric ton; $CO_2$ = carbon dioxide; kg = kilogram.

### Summary

Over the lifetime of the project, the fuel efficiency of the vehicles being used by the visitors, students, and employees of the project is expected to increase. As such, the amount of gasoline consumed as a result of vehicular trips to and from the project site during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. This approach also includes efforts to support and

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[11] For context, in 2020, California consumed approximately 1,233 billion kBtu of natural gas (EIA 2022). Locally, in 2020, nonresidential uses in Riverside County consumed about 13.5 billion kBtu of natural gas (CEC 2022b).

accelerate the numbers of plug-in hybrids and zero-emission vehicles in California (CARB 2017a). Additionally, in response to Senate Bill (SB) 375, CARB has adopted the goal of reducing per-capita GHG emissions from 2005 levels by 8% by the year 2020 and 13% by the year 2035 for light-duty passenger vehicles in the SCAG planning area. This reduction would occur by reducing VMT through the integration of land use planning and transportation. As such, operation of the project is expected to use decreasing amounts of petroleum over time, due to advances in fuel economy.

The proposed project would create additional electricity and natural gas demand by adding educational facilities. New facilities associated with the proposed project would be subject to the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations. The efficiency standards apply to new construction of nonresidential buildings and regulate energy consumed for HVAC, water heating, and lighting.

In summary, implementation of the project would increase the demand for electricity and natural gas at the project site and petroleum consumption in the region during construction and operation. However, because the project would be consistent with current regulations and policies, the project would not be wasteful or inefficient and would not result in unnecessary energy resource consumption. The project's energy consumption demands during construction and operation would conform to the state's Title 24 standards such that the project would not be expected to wastefully use gas and electricity. Because the proposed project would comply with Title 24 conservation standards, the project would not directly require the construction of new energy generation or supply facilities or result in wasteful, inefficient, or unnecessary consumption of energy. Moreover, vehicle usage associated with the project would use less petroleum due to advances in fuel economy and potential reduction in VMT over time. Therefore, impacts would be less than significant.

*b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less-Than-Significant Impact. The proposed project would be subject to and would comply with, at minimum, the 2022 California Building Code Title 24 (24 CCR, Part 6). Additionally, as discussed in Section 3.8, Greenhouse Gas Emissions, the proposed project would also not conflict with CARB's Climate Change Scoping Plan, which identifies several strategies to reduce GHG emissions through energy efficiency. As discussed in further detail in Section 3.8, the proposed project would not be subject to these strategies, as many are state actions requiring no involvement at the project level. As such, implementation of the proposed project would not conflict with applicable plans for energy efficiency, and the impacts during construction and operation would be less than significant.

The proposed project would not conflict with existing energy standards and regulations; therefore, impacts during construction and operation of the proposed project would be less than significant.

# 3.7 Geology and Soils

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **VII. GEOLOGY AND SOILS** – Would the project: | | | | |
| a) Directly or indirectly cause 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. | ☐ | ☐ | ☒ | ☐ |
| ii) Strong seismic ground shaking? | ☐ | ☐ | ☒ | ☐ |
| iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☒ | ☐ |
| iv) Landslides? | ☐ | ☐ | ☒ | ☐ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ☒ | ☐ |
| 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? | ☐ | ☐ | ☒ | ☐ |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | ☐ | ☐ | ☒ | ☐ |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | ☐ | ☐ | ☐ | ☒ |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☒ | ☐ |

***a) Would the project directly or indirectly cause 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.***

Less-Than-Significant Impact. The project site is located in the northern part of the Peninsular Ranges Geomorphic Province of Southern California. Cretaceous igneous rocks of the Southern California batholith underlie the Peninsular Ranges at depth in this area. Northwest-trending, right-lateral, strike-slip faults dominate the structure of the Peninsular Ranges. The active Chino–Central Avenue Fault is present approximately 5 miles west of the project site. This fault zone has experienced significant activity in the recent geologic past. The San Andreas Fault, the most active and extensive fault in California, is located approximately 25 miles northeast of the site. Locally, the project site is mapped as being underlain by Cretaceous micropegmatite granite of the Gavilan Ring Complex, with granitic bedrock also underlying the hilly terrain to the northeast.

According to the California Geological Survey's Earthquake Zones of Required Investigation web map, the project site is not located over any known faults and is not located near a pressure ridge or within a current state-designated earthquake fault zone; therefore, the potential for future surface rupture of active faults on site is considered to be very low (DOC 2022b). Further, according to the City's Safety Element, there are no active or potentially active faults present in the City (City of Norco 2013). Therefore, impacts associated with fault rupture would be less than significant.

***ii) Strong seismic ground shaking?***

Less-Than-Significant Impact. Similar to other areas located in the seismically active Southern California region, the City is susceptible to ground shaking caused by several local fault systems. The known regional active faults that could produce the most significant ground shaking at the project site include the Chino–Central Avenue, San Jose, San Andreas, Whittier, and Elsinore–Glen Ivy Faults. The closest fault is the Chino–Central Avenue Fault, located approximately 5 miles west of the project site. However, as previously addressed in Section 3.7(a)(i), the project site is not located within an active fault zone, and the project site would not be affected by ground shaking more than any other area in this seismic region. Additionally, the proposed project includes the construction of the proposed CHP+K Building, which would be designed in accordance with all applicable provisions established in the current California Building Code, which sets forth specific engineering requirements to ensure structural integrity during a seismic event. Compliance with these requirements would reduce the potential risk to both people and structures with respect to strong seismic ground shaking. Therefore, impacts associated with strong seismic ground shaking would be less than significant.

***iii) Seismic-related ground failure, including liquefaction?***

Less-Than-Significant Impact. Liquefaction occurs when partially saturated soil loses its effective stress and enters a liquid state, which can result in the soil's inability to support structures above. Liquefaction can be induced by ground-shaking events and is dependent on soil saturation conditions. According to the Safety Element of the City's General Plan, the areas where liquefaction is a potential issue are along the Santa Ana River channel, which is approximately 1.4 miles northeast of the project site. As such, the proposed project site is in an area identified as having low liquefaction susceptibility. Therefore, impacts associated with liquefaction would be less than significant.

***iv) Landslides?***

Less-Than-Significant Impact. The project site is located just south of Lake Norconian and the surrounding hiking trails. The hiking trails feature somewhat hilly terrain. However, there is no evidence of ancient landslides or slope instabilities at the project site, and there are no significant slopes located on or near the project site that may be considered susceptible to seismically induced landslides. Additionally, the project site is relatively flat, and during the grading phase, the project site would be further leveled. As a result, impacts resulting from landslides would be less than significant.

***b) Would the project result in substantial soil erosion or the loss of topsoil?***

### Short-Term Construction Impacts

Less-Than-Significant Impact. Construction activities such as grading may have the potential to cause soil erosion or the loss of topsoil. Because the proposed project would result in less than 1 acre of ground disturbance, the proposed project would be required to prepare a water pollution control program to minimize the potential for soil erosion and the loss of topsoil from the relatively small area that would be temporarily disturbed during construction. Post-construction stabilization of the project temporary work areas, as is required to close the project's water pollution control program, would return the project site to its pre-construction conditions and prevent erosion in the long term. Among the required items that must be included within a water pollution control program are project design features intended to protect against substantial soil erosion as a result of water and wind erosion, commonly known as best management practices (BMPs). BMPs would likely require the proposed project to maintain or create drainages to convey and direct surface runoff from bare areas. Through the incorporation of BMPs, impacts associated with soil erosion would be less than significant.

### Long-Term Operational Impacts

Less-Than-Significant Impact. Once developed, the project site would include a two-story structure and paved surfaces, all of which would stabilize and help retain on-site soils. The project site would also contain pervious landscape areas, which would also help retain on-site soils while preventing wind and water erosion from occurring. Therefore, long-term operational impacts associated with soil erosion would be less than significant.

***c) Would the project 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?***

Less-Than-Significant Impact. As previously discussed in Section 3.7(a)(iv), the project site is not susceptible to landslide or liquefaction. Additionally, the proposed project would be designed in accordance with all applicable provisions established in the current California Building Code, which sets forth specific engineering requirements to ensure structural integrity, regardless of the specific characteristics of the underlying soils. Compliance with these requirements would reduce the potential risk to both people and structures with respect to a variety of geotechnical constraints. Therefore, impacts associated with unstable geologic units/soils would be less than significant.

*d)* ***Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?***

Less-Than-Significant Impact. According to the U.S. Department of Agriculture Web Soil Survey, the soil beneath the project site consists of Cieneba rocky sandy loam, 8% to 15% slopes, eroded; Bonsall fine sandy loam, 2% to 8% percent slopes, eroded; and Delhi fine sand, 2% to 15% percent slopes, wind eroded. These types of soil have a medium to very low runoff class, and well-drained to somewhat excessive drainage class (USDA 2022). Based on the type of soils at the project site, expansive soils are not anticipated at the project site; therefore, impacts would be less than significant. Nonetheless, construction of the proposed project will include removal of undocumented artificial fill and ensuring proper fill placement and compaction to further reduce this already less-than-significant impact.

*e)* ***Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

No Impact. The proposed project would connect directly to the municipal sewer system and would not require septic tanks or any other alternative wastewater disposal system. Therefore, no impacts associated with the adequacy of soils and septic systems would occur.

*f)* ***Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

Less-Than-Significant Impact. The proposed project is located within the northernmost Peninsular Ranges geomorphic province (Norris and Webb 1990; CGS 2002). This geomorphic province is characterized by northwest-trending mountain ranges and valleys that extend over 900 miles from the tip of the Baja Peninsula to the Transverse Ranges (i.e., the San Bernardino and San Gabriel Mountains in Southern California). Regionally, the Peninsular Ranges are bounded to the east by the Colorado Desert and the west by the continental shelf and offshore islands (Santa Catalina, Santa Barbara, San Nicholas, and San Clemente) (Norris and Webb 1990; CGS 2002). Regional mountain ranges in the Peninsular Ranges geomorphic province include the Santa Ana, San Jacinto, and Santa Rosa Mountains. Geologically, these mountains are dominated by Mesozoic, plutonic igneous and metamorphic rocks that are part of the Peninsular Ranges batholith (Southern California batholith) (Jahns 1954).

More specifically, the proposed project is located within the Santa Ana Structural Block, along the Chino Fault Zone (Morton et al. 2002). The Chino Fault Zone is part of the greater San Andreas Fault System, which is characterized by numerous strike-slip faults. The Chino Fault Zone is a northern extension of the Elsinore Fault Zone. According to surficial geological mapping by Morton et al. (2002) at a scale of 1:24,000, the southern portion of the proposed project site is underlain by early Pleistocene (~2.58 million years ago [mya]–781,000 years ago) to possibly late Pliocene (~3.6 mya–2.58 mya) sedimentary rocks, and the northern portion of the proposed project site is underlain by Cretaceous (~145 mya–66 mya) Micropegmatitic granite of Gavilan Ring Complex, consisting of pink-tinted leucocratic granite (map unit Kmp).

Several classification schemes exist to determine the paleontological sensitivity of geological units. According to the Society of Vertebrate Paleontology's guidelines for assessment of paleontological resources (SVP 2010), plutonic igneous rocks have no paleontological potential to yield significant paleontological resources, while Pleistocene alluvium has high paleontological sensitivity. The surrounding area is sensitive for supporting paleontological resources where Pleistocene alluvium crops out on the surface. Thus, during construction, the proposed project would have the potential to destroy a unique paleontological resource or site. However, according to the County of Riverside General Plan, the proposed project site is underlain by geological units of low paleontological potential (County of Riverside 2015). As such, impacts of the proposed project would be considered less than significant.

## 3.8 Greenhouse Gas Emissions

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **VIII. GREENHOUSE GAS EMISSIONS** – Would the project: | | | | |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☐ | ☒ | ☐ |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☒ | ☐ |

***a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

Less-Than-Significant Impact. Climate change refers to any significant change in measures of climate (e.g., temperature, precipitation, or wind patterns) lasting for an extended period of time (i.e., decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. The greenhouse effect is the trapping and buildup of heat in the atmosphere near the Earth's surface (the troposphere). The greenhouse effect is a natural process that contributes to regulating the Earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g), for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include $CO_2$, methane

($CH_4$), nitrous oxide ($N_2O$), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride ($SF_6$), and nitrogen trifluoride ($NF_3$) (see also 14 CCR 15364.5).[12] The three GHGs evaluated herein are $CO_2$, $CH_4$, and $N_2O$, because these gases would be emitted during proposed project maintenance.

The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare each GHG's ability to trap heat in the atmosphere relative to another gas. The reference gas used is CO2; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO2 equivalent (CO2e). Consistent with CalEEMod Version 2022.1.1.28, this GHG emissions analysis assumed the GWP for CH4 is 25 (i.e., emissions of 1 MT CH4 are equivalent to emissions of 25 MT CO2), and the GWP for N2O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

As discussed in Section 3.3, Air Quality, the proposed project site is located within the jurisdictional boundaries of SCAQMD. In October 2008, SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects, as presented in its Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold (SCAQMD 2008b). This document, which builds on the California Air Pollution Control Officers Association's previous guidance, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, SCAQMD adopted an interim 10,000 MT CO2e per-year screening level threshold for stationary source/industrial projects for which SCAQMD is the lead agency (SCAQMD 2008b). The 10,000 MT CO2e per-year threshold, which was derived from GHG reduction targets established in Executive Order S-3-05, was based on the conclusion that the threshold was consistent with achieving an emissions capture rate of 90% of all new or modified stationary source projects.

SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. SCAQMD has continued to consider adoption of significance thresholds for residential and general land-use development projects. The most recent proposal by SCAQMD, which was issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

**Tier 1** Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

**Tier 2** Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

**Tier 3** Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT $CO_2e$ per-year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are

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[12] Climate-forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code Section 38505; impacts associated with other climate-forcing substances are not evaluated herein.

proposed for residential projects (3,500 MT $CO_2e$ per year), commercial projects (1,400 MT $CO_2e$ per year), and mixed-use projects (3,000 MT $CO_2e$ per year). Under option 2, a single numerical screening threshold of 3,000 MT $CO_2e$ per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

**Tier 4** Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of Assembly Bill (AB) 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT $CO_2e$ per-service population for project-level analyses and 6.6 MT $CO_2e$ per-service population for plan-level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

**Tier 5** Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

Section 15064.7(c) of the CEQA Guidelines specifies that “[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.” The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, establish specific thresholds of significance, or mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency’s discretion to determine the appropriate methodologies and thresholds of significance that are consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

To determine the proposed project’s potential to generate GHG emissions that would have a significant impact on the environment, its GHG emissions were compared to the SCAQMD-recommended quantitative threshold of 3,000 MT $CO_2e$ per year for all land uses.[13]

### Construction Greenhouse Gas Emissions

Construction of the project would result in GHG emissions, which are primarily associated with off-road construction equipment, on-road haul and vendor trucks, and worker vehicles. The SCAQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold (SCAQMD 2008c) recommends that “construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies.” Thus, the total construction GHG emissions were calculated, amortized over 30 years, and added to the total operational emissions for comparison with the GHG significance threshold of 3,000 MT $CO_2e$ per year. Therefore, the

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[13] The 3,000 MT $CO_2e$ per year threshold was proposed in 2010 and was never adopted. However, SCAQMD, an expert agency, developed and recommended the 3,000 MT $CO_2e$ per year threshold by based on substantial evidence as provided in the Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold (SCAQMD 2008) document and subsequent Working Group meetings (latest in 2010). This threshold uses the Executive Order S-3-05 goal as the basis, so it is not tied to only the 2020 target year and is thus not outdated. This threshold is also based on the 90% capture rate methodology, which means that 90% of total emissions from all new or modified projects would be subject to some type of CEQA analysis, which was the approach taken by SCAQMD to establish the stationary/industrial source threshold, as well as by the CARB (for interim threshold for stationary source projects) and one of the options suggested by the California Air Pollution Control Officers Association (quantitative threshold based on market capture). Further, this threshold has been used for hundreds, if not thousands, of GHG analyses performed for projects located within SCAQMD jurisdiction.

determination of significance is addressed in the operational emissions discussion following the estimated construction emissions.

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 3.3. Construction of the proposed project is anticipated to commence in January 2025, lasting approximately 1 year. On-site sources of GHG emissions include off-road equipment, and off-site sources include haul trucks, vendor trucks, and worker vehicles. Table 3.8-1 presents construction GHG emissions for the proposed project from on-site and off-site emission sources.

## Table 3.8-1. Estimated Annual Construction GHG Emissions

| Construction Year | $CO_2$ | $CH_4$ | $N_2O$ | R | $CO_2e$ |
|---|---|---|---|---|---|
| | Metric Tons per Year | | | | |
| | 272.90 | 0.01 | 0.01 | 2.18 | 272.90 |
| | | | | **Total Construction GHG Emissions** | **272.90** |
| | | | | *Amortized Emissions (30-year Project Life)* | *9.10* |

**Notes:** GHG = greenhouse gas; $CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; R = refrigerants; $CO_2e$ = carbon dioxide equivalent.
See Appendix A for complete results.

As shown in Table 3.8-1, the estimated total GHG emissions during construction would be approximately 273 MT $CO_2e$. Estimated project-generated construction emissions amortized over 30 years would be approximately 9 MT $CO_2e$ per year. As with project-generated construction air quality pollutant emissions, GHG emissions generated during construction of the project would be short term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. Because there is no separate GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis in the following text.

### Operational Emissions

CalEEMod Version 2022.1.1.28 was used to estimate potential project-generated operational GHG emissions from vehicular sources, area sources (natural gas combustion and landscape maintenance), electrical generation (including electrical generation associated with water supply and wastewater treatment), and solid waste. Emissions from each category—area sources, energy sources, mobile sources, solid waste, and water supply and wastewater treatment—are discussed in the following text with respect to the project. For additional details, see Section 3.3 for a discussion of operational emission calculation methodology and assumptions, specifically for area, energy (natural gas), and mobile sources.

### Area Sources

CalEEMod was used to estimate GHG emissions from the project's area sources, including gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. It was assumed that 100% of the landscaping equipment would be gasoline powered. Consumer product use and architectural coatings result in VOC emissions, which are analyzed in the air quality analysis only, and low-to-no GHG emissions.

### Energy Sources

The estimation of operational energy emissions was based on CalEEMod land use defaults and square footage of the project's land uses. For nonresidential buildings, CalEEMod energy intensity value (electricity or natural gas usage per square foot per year) assumptions were based on the California Commercial End-Use Survey database. Emissions are calculated by multiplying the energy use by the utility carbon intensity (pounds of GHGs per kilowatt-hour for electricity or kBTU for natural gas) for $CO_2$ and other GHGs. The CalEEMod default energy intensity factor ($CO_2$, $CH_4$, and $N_2O$ mass emissions per kilowatt-hour) for Southern California Edison were used for the analysis.

On August 11, 2021, the California Energy Commission adopted the 2022 Energy Code. In December 2021, it was approved by the California Building Standards Commission for inclusion into the California Building Standards Code, Title 24. The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code.

### Mobile Sources

All details for criteria air pollutants discussed in Section 3.3 are also applicable for the estimation of operational mobile source GHG emissions. Regulatory measures related to mobile sources include AB 1493 (Pavley) and related federal standards. AB 1493 required that CARB establish GHG emission standards for automobiles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. In addition, the National Highway Traffic Safety Administration and EPA have established corporate fuel economy standards and GHG emission standards, respectively, for automobiles and light-, medium-, and heavy-duty vehicles. Implementation of these standards and fleet turnover (replacement of older vehicles with newer ones) will gradually reduce emissions from the project's motor vehicles. The effectiveness of fuel economy improvements was evaluated to the extent it was captured in the EMFAC2017 emission factors.

### Solid Waste

The project would generate solid waste and therefore would result in $CO_2e$ emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste.

### Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the project would require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the proposed project would require the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both indoor and outdoor water use and associated electricity consumption from water use and wastewater generation were estimated using CalEEMod default values.

Estimated project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, and water usage and wastewater generation for project buildout are shown in Table 3.8-2.

### Table 3.8-2. Estimated Annual Operational GHG Emissions

| Emission Source | $CO_2$ | $CH_4$ | $N_2O$ | R | $CO_2e$ |
|---|---|---|---|---|---|
| | Metric Tons per Year | | | | |
| Mobile | 1,359.31 | 0.06 | 0.07 | 2.15 | 1,382.56 |
| Area | 1.14 | 0.00 | 0.00 | 0.00 | 1.15 |
| Energy | 273.41 | 0.02 | 0.00 | 0.00 | 274.49 |
| Water | 3.68 | 0.07 | 0.00 | 0.00 | 5.93 |
| Waste | 16.28 | 1.63 | 0.00 | 0.00 | 56.97 |
| Refrigerant | 0.00 | 0.00 | 0.00 | 0.04 | 0.04 |
| **Total Operational GHG Emissions** | | | | | **1,721.14** |
| *Amortized 30-year Construction Emissions* | | | | | *9.10* |
| *Project Operations + Amortized Construction Total* | | | | | *1,730.24* |
| *SCAQMD Threshold* | | | | | *3,000* |
| **Threshold Exceeded?** | | | | | **No** |

**Notes:** GHG = greenhouse gas; $CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; R = refrigerants; $CO_2e$ = carbon dioxide equivalent; SCAQMD = South Coast Air Quality Management District.
The total values may not add up exactly due to rounding.
See Appendix A for complete results.

As shown in Table 3.8-2, estimated annual project-generated GHG emissions would be approximately 1,721 MT $CO_2e$ due to project operation only. Estimated annual project-generated operational GHG emissions plus amortized construction emissions (approximately 9 MT $CO_2e$ per year) would be approximately 1,730 MT $CO_2e$ per year. Thus, the project would not exceed the SCAQMD threshold of 3,000 MT $CO_2e$ per year. Therefore, the project's GHG contribution would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and impacts would be less than significant.

***b) Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

Less-Than-Significant Impact. The proposed project would result in less-than-significant impacts related to conflicts with GHG emission reduction plans, for the reasons described in the following paragraphs.

#### Western Riverside County Council of Governments Climate Action Plan

The City of Norco is one of 12 cities that are part of the Western Riverside County Council of Governments (WRCOG) Climate Action Plan (CAP) (WRCOG 2014). The CAP is not qualified per CEQA Guidelines Section 15183.5 and therefore cannot be used for project streamlining. Nevertheless, for informational purposes only, the CAP identifies WRCOG's subregional emissions reduction targets as 15% below 2010 levels by 2020, and 49% below 2010 levels by 2035. This plan focuses on feasible actions that Western Riverside County communities can and should take as innovative approaches that will be needed to achieve the 2035 target. The CAP identifies objectives and actions to meet the GHG emission target in the following four categories:

- Energy
- Transportation and land use
- Solid waste
- Water

The City's General Plan Conservation Element Update (City of Norco 2014a) contains relevant goals and policies, including Section 2.9: Climate Action Plan/Sustainability Community Strategy Goal. As described by the City, the goal is to "develop and maintain Norco and its small-plot agriculture, animal keeping, and equestrian, lifestyle as a community that is economically, socially, and environmentally sustainable." These goals and policies reflect the City's active participation in the WRCOG CAP, and include policies on transportation, land use, energy efficiency, and solid waste.

The proposed project would include the construction of the proposed CHP+K Building to support Norco College's existing physical education program and is located within the boundaries of the existing Norco College campus; as such, it would not result in population growth or generate an increase in employment that would conflict with existing projections in the area. The proposed project is consistent with transportation and land use policies. The District proposes to use high-efficiency lighting and low-flow faucets and toilets and to be consistent with the City's energy efficiency and building resource conservation policy. The proposed project does not conflict with or preclude the City from implementation of any policies of Section 2.9: Climate Action Plan/Sustainability Community Strategy Goal. As such, the proposed project is consistent with the City's goal of environmental sustainability. The proposed project would not conflict with the City's General Plan policies or with implementation of the WRCOG CAP.

### Potential to Conflict with the CARB Scoping Plan

The Climate Change Scoping Plan, approved by CARB in 2008 and updated in 2014, 2017, and 2022, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, and it is not intended to be used for project-level evaluations.[14] Under the Scoping Plan, however, several state regulatory measures aim to identify and reduce GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area-source emissions (e.g., energy usage and high-GWP GHGs in consumer products) and changes to the vehicle fleet (e.g., hybrid, electric, and more fuel-efficient vehicles) and associated fuels, among others. Nonetheless, the project would comply with various GHG emission reduction regulations to the extent they apply to the project's emissions sources.

CARB's 2022 Scoping Plan reflects the 2030 target of a 40% reduction below 1990 levels codified by SB 32, and the 2045 target of carbon neutrality established by Executive Order B-55-18 (AB 1279). Per the 2022 Scoping Plan, empirical evidence shows that residential development projects that are consistent

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[14] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

with certain key project attributes to reduce GHG emissions will accommodate growth in a manner that aligns with the GHG and equity goals of SB 32. Absent a qualified GHG reduction plan, Appendix D of the CARB Scoping Plan provides recommendations for key attributes that residential and mixed-use projects should achieve that would align with the state's climate goals including electric vehicle charging infrastructure, infill location, no loss or conversion of natural and working lands, transit-supportive densities or proximity to transit stops, and no net loss of existing affordable units, among others. However, as this project is not a mixed-use residential project, CARB's Appendix D would not directly apply to the project (CARB 2023c).

Many of the measures and programs included in the Scoping Plan would result in the reduction of project-related GHG emissions with no action required at the project level, including GHG emission reductions through increased energy efficiency and renewable energy production (SB 350), reduction in carbon intensity of transportation fuels, and the accelerated efficiency and electrification of the statewide vehicle fleet (Mobile Source Strategy).

The project would include educational land uses located on an infill site (existing campus) that is surrounded by urban uses and is presently served by existing utilities and essential public services, including transit, streets, water, and sewer. The project site currently has an existing building and would not result in the loss or conversion of the state's natural and working lands. As the project would develop educational buildings on campus, which is proximate to residential uses nearby, the project would facilitate reduced VMT and associated mobile emissions by siting housing on campus. The project would support the use of the existing and proposed pedestrian, bicycle, and mass-transit infrastructure and connectivity. Less reliance on automobiles and support for multi-modal transportation would help reduce GHG emissions and improve air quality. The project would not result in a loss of affordable units. Overall, the project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent applicable and required by law. As demonstrated above, the proposed project would not conflict with CARB's 2022 Scoping Plan updates or with the state's ability to achieve the GHG reduction and carbon neutrality goals. Further, the project's consistency with the applicable measures and programs would assist in meeting the District's contribution to GHG emission reduction targets in California. Based on the considerations previously outlined, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and this impact would be less than significant.

### Potential to Conflict with the SCAG 2024–2050 RTP/SCS (Connect SoCal)

Typically, a project would not conflict with the RTP/SCS if the project does not exceed the underlying growth assumptions within the RTP/SCS. As discussed in Section 3.3, Air Quality, the project would be within the overall growth projections assumed in the SCAG 2020–-2045 RTP/SCS (Connect SoCal).[15]

As stated in the 2024–2050 RTP/SCS (Connect SoCal), there is no obligation by a jurisdiction to change its land use policies, General Plan, or regulations to be consistent with the RTP/SCS, and lead agencies have the sole discretion in determining a local project's potential to conflict with the RTP/SCS (SCAG 2024). Because the project would support SCAG's goals and strategies for growth in the region as described below, and because the project would not result in new development of housing, there would be no impact related

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[15] It should be noted that the 2024–2050 RTP/SCS (also known as Connect SoCal) was adopted in April 2024; however, the SCAQMD 2022 AQMP is based upon 2020–2045 RTP/SCS, and for the purposes of this analysis, the project references the 2020–2045 RTP/SCS.

to population growth assumed in Connect SoCal. The major goals of the Connect SoCal are outlined in Table 3.8-3, along with the project's potential to conflict with the goals.

## Table 3.8-3. Project Potential to Conflict with Connect SoCal (SCAG 2024-2050 RTP/SCS)

| RTP/SCS Goal | Potential to Conflict |
|---|---|
| **Mobility**: Build and maintain an integrated multimodal transportation network<br>▪ Support investments that are well-maintained and operated, coordinated, resilient and result in improved safety, improved air quality and minimized greenhouse gas emissions<br>▪ Ensure that reliable, accessible, affordable and appealing travel options are readily available, while striving to enhance equity in the offerings in high-need communities<br>▪ Support planning for people of all ages, abilities and backgrounds | **No Conflict.** The project would increase educational uses on-site and is not an integrated multimodal transportation network. However, it would not preclude SCAG from meeting this goal. The project would promote sustainability in land use design by developing an existing campus site in an area proximate to other educational uses, and by encouraging walking, bicycling, and transit ridership to reduce VMT, and improve pedestrian infrastructure through sidewalk continuity and street connectivity. Bicycle lanes proximate to the site would encourage bicycle travel, which would reduce GHG emissions. |
| **Communities**: Develop, connect and sustain livable and thriving communities<br>▪ Create human-centered communities in urban, suburban and rural settings to increase mobility options and reduce travel distances<br>▪ Produce and preserve diverse housing types in an effort to improve affordability, accessibility and opportunities for all households | **No Conflict.** The project would expand educational uses on site and would facilitate development of such uses within an existing campus. As the campus is located within a suburban community, it would provide educational opportunities potential future proximate students. This would reduce travel distances and support a human-centered community. |
| **Environment**: Create a healthy region for the people of today and tomorrow<br>▪ Develop communities that are resilient and can mitigate, adapt to and respond to chronic and acute stresses and disruptions, such as climate change<br>▪ Integrate the region's development pattern and transportation network to improve air quality, reduce greenhouse gas emissions and enable more sustainable use of energy and water<br>▪ Conserve the region's resources | **No Conflict.** The project would meet the applicable requirements of the Title 24 Building Energy Efficiency Standards and CALGreen Code or applicable version at the time of building permit issuance. The project would promote sustainability in land use design by developing in an infill location proximate to other educational uses and employment opportunities and by encouraging walking, bicycling, and transit ridership to reduce VMT, and by improving pedestrian infrastructure through sidewalk continuity and street connectivity. |
| **Economy**: Support a sustainable, efficient and productive regional economic environment that provides opportunities for all people in the region<br>▪ Improve access to jobs and educational resources<br>▪ Advance a resilient and efficient goods movement system that supports the economic vitality of the region, attainment of clean air and quality of life for our communities | **No Conflict.** The project would provide educational and employment opportunities nearby other housing establishments. Once constructed, the project would support the regional economic environment, as the project would facilitate a more balanced jobs-housing profile. |

**Source:** SCAG 2024.

As shown in Table 3.8-3, the project would not conflict with any of the goals within SCAG's Connect SoCal. Therefore, the project would not conflict with a plan adopted for the purpose of reducing the emissions of GHG.

### Summary

Based on the considerations previously outlined, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; therefore, impacts would be less than significant.

## 3.9 Hazards and Hazardous Materials

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **IX. 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? | ☐ | ☒ | ☐ | ☐ |
| 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? | ☐ | ☒ | ☐ | ☐ |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☒ | ☐ | ☐ |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☒ | ☐ | ☐ |
| 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 or excessive noise for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☒ | ☐ |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | ☐ | ☐ | ☒ | ☐ |

A subsurface investigation report (Appendix C) was prepared and summarizes the results of soil, groundwater, and soil vapor sampling that was conducted to obtain approval from the Department of Toxic Substances Control (DTSC) for construction of the project. The subsurface investigation was conducted in January 2022. Soil vapor probes (S1 through S7) were advanced to depths of 10 to 15 feet below ground surface (bgs), and groundwater samples (S8 and S9) were advanced to a depth of 45 feet bgs. Soil samples were collected continuously during advancement of both soil vapor and groundwater borings.

### Soil Sampling

A total of 45 soil samples were collected, ranging in depth from 5 feet bgs to 45 feet bgs. Samples were analyzed for contaminants of concern associated with the site, including total petroleum hydrocarbons (TPH) by EPA Method 8015M, VOCs and TPH in the gasoline range (TPHg) by EPA Method 8260B, metals by EPA Method 6010B/7471A, and perchlorate by EPA Method 314.1 (at sample location S4 only). Sample collection techniques and lithology are described in Appendix C.

Soil analytical results were compared to EPA Regional Screening Levels (RSLs) for both residential and industrial soil, and DTSC-Modified Screening Levels (SLs) for residential and commercial/industrial soils.

- TPH was not detected above method reporting limits (MRLs).
- VOCs were not detected above MRLs.
- Metals (antimony, arsenic, barium, cadmium, chromium, cobalt, copper, lead, nickel, silver, vanadium, and zinc) were detected above MRLs. Two metals were detected above applicable screening levels.
  - Lead was detected in one location (S1) at a depth of 5 feet at 180 milligrams per kilogram (mg/kg) above DTSC-SLs for residential use (80 mg/kg), but below the DTSC-SLs for commercial/industrial use (500 mg/kg). This sample is located north of the proposed project building. Samples collected in the same boring, both above (0.5 feet bgs) and below (10 feet bgs) the elevated sample did not have lead concentrations above the residential DTSC-SL (13 mg/kg and 19 mg/kg, respectively).
  - Arsenic was detected in all samples at a maximum concentration of 4.8 mg/kg, which is above the DTSC-SLs, but below the upper-bound background concentrations found in Southern California, as published by DTSC (12 mg/kg). As such, arsenic is not considered elevated.
- Perchlorate was not detected above MRLs.

### Soil Vapor Sampling

Soil vapor probes were installed in seven locations at 5 feet bgs and 10 or 15 feet bgs, depending upon depth of boring. Soil vapor probe construction and sampling techniques are described in Appendix C. Soil vapor samples were analyzed for TPHg and VOCs by EPA Method 8260B.

Soil vapor analytical results were compared to EPA RSLs and DTSC-SLs for commercial industrial indoor air. Methods for screening level calculations are discussed in Appendix C. For TPHg, the RWQCB Environmental Screening Levels (ESLs) were used, as there are no EPA RSLs or DTSC-SLs for petroleum hydrocarbons in soil vapor.

- TPHg was detected in four locations (S4 through S7) at 5 feet bgs above MRLs; none of the 10 or 15 feet bgs locations had detected concentrations of TPHg. Concentrations ranged from 30,600 to 418,000 micrograms per cubic meter (μg/$m^3$). All detected TPHg concentrations exceeded the residential ESL; some of the concentrations exceeded commercial ESLs.

- VOCs benzene, chloroform, ethylbenzene, 4-isopropyltoluene, tetrachloroethene, toluene, trichlorofluoromethane, 1,2,4-trimethylbenzene, and xylenes were all detected above MRLs in one or more soil vapor sample. Concentrations of benzene and chloroform exceeded some, but not all, applicable screening levels. Concentrations and applicable screening levels are detailed in Appendix C.

### Groundwater Sampling

Two boreholes were advanced to 45 feet bgs within the project footprint (S8 and S9). Temporary groundwater wells were constructed in each boring. Groundwater well installation and sampling procedures are described in Appendix C. Groundwater samples were analyzed for TPH by EPA Method 8015M, VOCs by EPA Method 8260B, metals by EPA Method 6010B/7471A, and perchlorate by EPA Method 314.1.

Groundwater analytical results were compared to California Maximum Contaminant Levels or Tier 1 ESLs.

- TPHg and TPH-oil range organics were not detected above MRLs. TPH-diesel range organics was detected in both groundwater samples at concentrations below the Tier 1 ESL of 100 milligrams per liter.
- VOCs were not detected above MRLs.
- Dissolved metals beryllium, cobalt, molybdenum, and nickel were detected above MRLs, but below California Maximum Contaminant Levels.
- Perchlorate was not detected above the MRL.

In response to detected concentrations of contaminants of concern identified on the project site, recommendations in the Subsurface Investigation Report included the following:

- A vapor barrier was proposed to limit vapor migration into the new building.

A draft of the Vapor Intrusion Mitigation System Operations, Monitoring, and Maintenance Plan (O&M Plan) has been prepared for the project and is in the process of approval.

***a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

Less-Than-Significant Impact with Mitigation Incorporated. A variety of hazardous substances and wastes would be transported to, stored, used, and generated on the project site during construction. These would include fuels for machinery and vehicles, new and used motor oils, cleaning solvents, paints, and storage containers and applicators containing such materials. Accidental spills, leaks, fires, explosions, or pressure releases involving hazardous materials represent a potential threat to human health and the environment if not properly treated. However, these materials would be transported, used, and disposed of in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. For example, hazardous materials would not be disposed of or released onto the ground or into the underlying groundwater or any surface water during construction or operation of the project, and completely enclosed containment would be required for all refuse generated on the project site. Additionally, all construction waste, including trash, litter, garbage, solid waste, petroleum products, and any other potentially hazardous materials, would be removed to a waste facility permitted to treat, store, or dispose of such materials. Use of these materials during construction for their intended purpose would not pose a significant risk to the public or the environment.

The transport and use of hazardous materials would be required to comply with the guidelines set forth by each product's manufacturer, as well as in accordance with all applicable federal, state, and local regulations. The U.S. Department of Transportation, the California Department of Health Services, Caltrans, and the California Highway Patrol all have interrelated programs designed to prevent disasters during the transportation of hazardous materials. Additionally, the EPA and Occupational Safety and Health Administration have interrelated programs designed to prevent the misuse of hazardous materials in the workplace.

As described in the Subsurface Investigation Report (Appendix C), soils did not contain concentrations of metals, VOCs, TPH, or perchlorate above commercial/industrial screening levels. As such, no additional soil management is required. Soils would be handled, graded, and transported on site in accordance with applicable federal, state, and local rules and regulations, including applicable air and stormwater management permits. Should soils be exported off site, soil disposal and/or soil reuse would require additional authorization from the receiving entity in accordance with local regulations and/or requirements of the receiving facility. For example, landfills require specific analysis and evaluation of soils before accepting them for daily cover. Soil reuse on another site must be reviewed and approved by the local Water Quality Control Board and should be reused in accordance with DTSC's Clean Fill Advisory. Based on this information, and available and applicable rules, regulations, and guidance, impacts associated with construction would not result in hazards due to routine transport of hazardous materials. Impacts would be less than significant.

Potentially hazardous materials associated with project operations would include those materials used during typical cleaning and maintenance activities. Although these potential hazardous materials would vary, they would generally include household cleaning products, paints, fertilizers, and herbicides and pesticides. Many of these materials are considered household hazardous wastes, common wastes, and/or universal wastes by the EPA, which considers these types of wastes to be common to businesses and households and to pose a lower risk to people and the environment than other hazardous wastes when properly handled, transported, used, and disposed of. Federal, state, and local regulations typically allow these types of wastes to be handled and disposed of with less stringent standards than other hazardous wastes, and many of these wastes do not have to be managed as hazardous waste. Additionally, any potentially hazardous material handled on the project site would be limited in both quantity and concentrations, consistent with other similar institutional uses located in the City, and any handling, transport, use, and disposal would comply with applicable federal, state, and local agencies and regulations. As mandated by the Occupational Safety and Health Administration, all hazardous materials stored on the project site would be accompanied by a Safety Data Sheet, which would inform employees and first responders as to the necessary remediation procedures in the case of accidental release.

As described above, a Subsurface Investigation Report (Appendix C) was prepared to obtain approval from DTSC for construction of the project. Based on the findings of the investigation, a soil vapor barrier was recommended, and an O&M Plan was prepared. This O&M Plan outlines requirements for a vapor barrier system to be installed on the proposed building, operation of the system, maintenance, and subsequent monitoring and reporting. In accordance with MM-HAZ-1, this system, and the associated O&M Plan, will be implemented as part of the project. With implementation of MM-HAZ-1, and adherence to applicable federal, state, and local regulations, operation of the project would not result in hazards due to routine transport of hazardous materials. Impacts would be less than significant with mitigation incorporated.

MM-HAZ-1 The project will implement the vapor barrier system as described in the Vapor Mitigation System Operations and Maintenance Plan (O&M Plan), prepared by Dudek in October 2023. The project will also incorporate any changes, comments, or modifications as required by DTSC during their review of the O&M Plan. Operation, maintenance, monitoring, and reporting as described in the O&M Plan and DTSC's subsequent comments will also be implemented as part of operation of the project.

***b) Would the project 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?***

Less-Than-Significant Impact with Mitigation Incorporated. As discussed previously in Section 3.8(a), construction activities on the project site would involve the transport of gasoline and other materials to the site during construction. Relatively small amounts of commonly used hazardous substances, such as gasoline, diesel fuel, lubricating oil, grease, and solvents, would be used on site for construction and maintenance. The materials alone and use of these materials for their intended purpose would not pose a significant risk to the public or environment; however, accidental spills of hazardous materials during construction could potentially result in soil contamination or water quality impacts. To minimize or eliminate fuel spillage, all construction vehicles would be adequately maintained and equipped. All equipment maintenance work, including refueling, will occur off site or within the designated construction staging area. All potentially hazardous construction waste, including trash, litter, garbage, other solid wastes, petroleum products, and other potentially hazardous materials, would be removed to a hazardous waste facility permitted to treat, store, or dispose of such materials.

A Subsurface Investigation Report (Appendix C) was prepared to obtain approval from DTSC for construction of the project. As described in Section 3.9(a), a vapor mitigation system and subsequent implementation of an O&M Plan are required under MM-HAZ-1 to reduce the potential for intrusion of harmful volatile compounds into proposed onsite buildings.

With implementation of federal, state, and local regulations, as well as MM-HAZ-1, impacts associated with foreseeable upset and accident conditions would be reduced to less than significant with mitigation incorporated.

***c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

Less-Than-Significant Impact with Mitigation Incorporated. John F. Kennedy Middle College High School, part of the Corona-Norco Unified School District and an "alternative school of choice" providing both high school and college level courses, is located approximately 1,700 feet east of the project site.

As discussed previously in Sections 3.9(a) and 3.9(b), limited amounts of hazardous materials would be used during construction and operation of the project, including the use of standard construction materials (e.g., lubricants, solvents and paints), cleaning and other maintenance products (used in the maintenance of buildings, pumps, pipes and equipment), and the limited application of pesticides associated with landscaping. These materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. None of these activities would result in the routine transport of, emission, or disposal of hazardous materials, and no acutely hazardous materials would be used on site during construction or operation of the proposed project. All construction activity would be performed in compliance with City and County of Riverside regulations, and compliance with these regulations would ensure that the general public would not be exposed to any unusual or excessive risks related to hazardous materials during construction activities on the project site.

A Subsurface Investigation Report (Appendix C) was prepared to obtain approval from DTSC for construction of the project. In response to elevated concentrations of contaminants of concern in soil vapor, a vapor mitigation system and O&M Plan have been prepared and are required as outlined in MM-HAZ-1. Potential vapor impacts are not likely to impact nearby schools, because they would be localized to the project site. However, MM-HAZ-1 would further reduce potential impacts associated with potential vapor intrusion. With implementation of MM-HAZ-1, and adherence to federal, state, and local rules and requirements, impacts would be less than significant with mitigation incorporated.

***d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

Less-Than-Significant Impact with Mitigation Incorporated. A Subsurface Investigation Report (Appendix C) was prepared to obtain approval from DTSC for construction of the project. MM-HAZ-1 requires implementation of soil vapor mitigation and maintenance of said mitigation systems, reducing potential impacts found during the subsurface investigation. With implementation of MM-HAZ-1, impacts associated with contaminated sites would be less than significant.

***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 or excessive noise for people residing or working in the project area?***

No Impact. According to the City's General Plan Safety Element, the City is not located within any Airport Land Use Compatibility Zones for any of the airports in the region including Ontario, Riverside, Chino, or Corona (City of Norco 2013). The project site is located approximately 2 miles from the Corona Municipal Airport, but it is not located within an Airport Compatibility Zone or an Airport Influence Area. No impacts would result, and the project would not create any undue risks or safety hazards to people either residing or working in the project area.

***f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

Less-Than-Significant Impact. In 2008, the District adopted the Riverside Community College District Emergency Operations Plan, which addresses the District's planned response to emergencies associated with natural disasters, technological incidents, human-made disasters, and national security emergencies (District 2008). The Plan is intended to address extraordinary emergency situations; day-to-day emergencies and emergency access routes are not established. Given that Third Street is the only roadway that provides ingress and egress for the Norco College campus, Third Street is a de facto emergency access route for Norco College.

Construction of the project is not expected to cause impacts to Third Street, as the project is set at the northern end of West End Drive. Further, the project would not interfere with the District's ability to implement its Emergency Operations Plan.

Once constructed, operation of the project would not result in any actions that would significantly impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts associated with adopted emergency response plans or emergency evacuation plans are less than significant.

***g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?***

Less-Than-Significant Impact. According to maps prepared by California Department of Forestry and Fire Protection (CAL FIRE), much of the project site is located within a Very High Severity Fire Hazard Zone (CAL FIRE 2022). The proposed project is located in an area where urban development currently exists and is not susceptible to the threat of fire from wildlands. While there is a substantial amount of open space around Lake Norconian to the north of the Norco College campus, this area does not represent a significant source of wildland fire risk, and the proposed project itself is not located within a fire hazard area. Impacts would be less than significant.

# 3.10 Hydrology and Water Quality

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **X. HYDROLOGY AND WATER QUALITY** – Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? | ☐ | ☐ | ☒ | ☐ |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | ☐ | ☐ | ☒ | ☐ |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: | | | | |
| i) result in substantial erosion or siltation on- or off-site; | ☐ | ☐ | ☒ | ☐ |
| ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | ☐ | ☐ | ☒ | ☐ |
| iv) impede or redirect flood flows? | ☐ | ☐ | ☐ | ☒ |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ☐ | ☒ | ☐ |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☒ | ☐ |

***a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?***

Less-Than-Significant Impact. Construction of the project would include earthwork activities that could potentially result in erosion and sedimentation, which could subsequently degrade downstream receiving waters and violate water quality standards. Stormwater runoff during the construction phase may contain silt and debris, resulting in a short-term increase in the sediment load of the municipal storm drain system. Substances such as oils, fuels, paints, and solvents may be inadvertently spilled on the project site and subsequently conveyed via stormwater to nearby drainages, watersheds, and groundwater.

Because the project would result in more than 1 acre of ground disturbance, the project would be subject to the National Pollutant Discharge Elimination System stormwater program, which includes obtaining coverage under the State Water Resources Control Board's Construction General Permit. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground such as stockpiling or excavation. The Construction General Permit requires development and implementation of a stormwater pollution prevention plan (SWPPP). Among the required items that must be included within a SWPPP are project design features, commonly known as BMPs, intended to protect against substantial soil erosion as a result of water and wind erosion. The implementation of a Construction General Permit, including preparation of a SWPPP and implementation of BMPs, would reduce stormwater runoff during project construction impacts to acceptable levels. It follows that because project construction would not violate any water quality standards or waste discharge requirements, the project would not otherwise substantially degrade surface or groundwater quality. Therefore, short-term construction impacts associated with water quality would be less than significant.

The project would be subject to the Municipal Separate Storm Sewer System (MS4) Permit, issued by the Santa Ana RWQCB. The MS4 Permit requires implementation of Low Impact Development BMPs to prevent pollutants from being discharged off site by mimicking pre-development site hydrology and feasible source control. The Low Impact Development Ordinance is designed to reduce runoff from impervious surfaces, including new development, through landscape design that promotes water retention, permeable surface design, natural drainage systems, and on-site retention where feasible (RWQCB 2010). These project-specific designs would reduce impacts to water quality associated with redevelopment.

Additionally, a project-specific water quality management plan (WQMP) would be prepared for operation of the proposed project. The WQMP would ensure appropriate BMPs are implemented for post-construction and operation of the project. The combination of Low Impact Development BMPs, source control BMPs, and other treatment control BMPs addressed within the WQMP would address identified pollutants and hydrologic concerns from new development that could result in impacts to water quality standards (RWQCB 2010).

Further, the project would be required to comply with sections of the City Municipal Code that set forth regulations to protect and enhance the quality of watercourses, water bodies, and wetlands within the City in a manner consistent with the federal Clean Water Act, the California Porter-Cologne Water Quality Control Act, and the municipal National Pollutant Discharge Elimination System permit. Therefore, long-term impacts associated with water quality, including surface water quality and groundwater quality, would be less than significant.

***b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?***

Less-Than-Significant Impact. The project site is undeveloped and consists of pervious surfaces. Thus, under the existing conditions, the project site could be considered a location for groundwater recharge.

Although the project would add impervious surfaces to the project site, once operational, the project site would contain landscaped areas and other pervious surfaces that would allow water to percolate into the subsurface soils. Additionally, the project would incorporate structural and treatment control BMPs to ensure that the project would not adversely affect water quality.

During construction, the proposed project would use only limited amounts of water resources for construction activities and landscaping activities. Minimal water use will be required for any of the additional office space or classroom facilities. As such, impacts associated with groundwater recharge would be less than significant.

The project would not involve permanent pumping of groundwater; therefore, the project would not substantially deplete groundwater supplies. Due to the incorporation of structural and treatment control BMPs, the proposed project would not substantially interfere with groundwater recharge. Impacts would be less than significant.

***c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:***

***i) Result in substantial erosion or siltation on- or off-site?***

Less-Than-Significant Impact. Refer to the previous response under Section 3.10(a). Under existing conditions, the majority of the project site is undeveloped. Thus, implementation of the project would increase the amount of impervious areas on site and alter the existing drainage patterns. The project would be required to conform to all applicable federal, state, and local requirements, including the current MS4 Permit adopted by the Santa Ana RWQCB. Compliance with these requirements would ensure the new drainage system is designed with adequate capacity to capture stormwater flow to prevent erosion or on-site or off-site siltation impacts.

As such, altering the on-site drainage pattern would be conducted in a manner consistent with all applicable standards related to the collection and treatment of stormwater; therefore, impacts associated with altering the existing drainage pattern of the project site would be less than significant.

*ii)* ***Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?***

**Less-Than-Significant Impact.** Refer to the previous response under Section 3.10(a). Under existing conditions, the project site is undeveloped. Thus, implementation of the project would increase the amount of impervious areas on site and alter the existing drainage patterns. The project would be required to conform to all applicable federal, state, and local requirements, including the current MS4 Permit adopted by the Santa Ana RWQCB. Compliance with these requirements would ensure the new drainage system is designed with adequate capacity to capture stormwater flow to prevent erosion or on-site or off-site siltation impacts.

As such, altering the on-site drainage pattern would be conducted in a manner consistent with all applicable standards related to the collection and treatment of stormwater; therefore, impacts associated with altering the existing drainage pattern of the project site would be less than significant.

*iii)* ***Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?***

**Less-Than-Significant Impact.** Under the existing condition, the project site is undeveloped. The project site does not currently have infiltration basins or capture systems in place to control stormwater runoff. Although the project would increase the amount of impervious surfaces on the project site, the proposed drainage system would be designed to conform to all applicable federal, state, and local requirements, including the current MS4 Permit adopted by the Santa Ana RWQCB. Compliance with these requirements would ensure the new drainage system is designed to have adequate capacity to capture stormwater flow to prevent the conveyance of sediment, debris, and other constituents potentially contained in on-site stormwater from leaving the project site and impacting off-site and downstream receiving waters; therefore, impacts associated with water quality standards and runoff waters would be less than significant.

*iv)* ***Impede or redirect flood flows?***

**No Impact.** According to the Federal Emergency Management Agency flood maps, the project site is not located within a special flood hazard area that could be inundated by a 100-year flood (FEMA 2024). While Lake Norconian is located north of the project site, it is not within an inundation area. Therefore, no impacts associated with flooding would occur. Further, the construction and operation of the project would have no effect on flood flows, and no impacts would occur in this regard.

***d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?***

Less-Than-Significant Impact. According to the Federal Emergency Management Agency flood maps, the project site is not located within a special flood hazard area that could be inundated by a 100-year flood (FEMA 2024). While Lake Norconian is located north of the project site, it is not within an inundation area. The project site is located inland and not located sufficiently near Lake Norconian or the ocean to be impacted by a seiche or tsunami. The topography of the site and project area is relatively flat and would not be subject to significant impacts from mudflow. Impacts would be less than significant.

***e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

Less-Than-Significant Impact. The proposed project would comply with regional and local regulations requiring preparation of a SWPPP and would not obstruct existing water quality control plans or groundwater sustainable management plans. Although the project would add impervious surfaces to the project site, once operational, the project site would contain landscaped areas and other pervious surfaces that would allow water to percolate into the subsurface soils. Additionally, the project would incorporate structural and treatment control BMPs to ensure that the project would not adversely affect water quality. Therefore, impacts associated with conflict with a water quality control plan or sustainable groundwater management plan would be less than significant.

# 3.11 Land Use and Planning

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XI. LAND USE AND PLANNING** – Would the project: | | | | |
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ☒ |
| b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☐ | ☒ |

***a) Would the project physically divide an established community?***

No Impact. The proposed project would include the construction of the proposed CHP+K Building to support Norco College's existing physical education program and the project site is located within the boundaries of the existing Norco College campus. The proposed project is compatible with adjacent land uses and facilities for college uses. As such, implementation of the proposed project would not divide an established community and is not expected to result in additional physical barriers between nearby land uses. No impact would occur.

***b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?***

No Impact. The project site has a General Plan land use designation and zoning designation of PAD (City of Norco 2012a, 2012b). The proposed project would not conflict with any of the proposed goals within the City's General Plan, including the loss of protected species, open space, community design cohesion, or the development and preservation of Norco's unique history and animal-keeping lifestyle. As such, the proposed project is consistent with the City's General Plan.

Overall, the proposed project does not violate any policies within the City's General Plan, Municipal Code, or any applicable specific plans in the area. Therefore, the proposed project would not conflict with any applicable land use plan, policy, or regulation and would not represent a significant impact to the physical environment. No impact would occur.

## 3.12 Mineral Resources

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XII. MINERAL RESOURCES** – Would the project: | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ☒ |
| 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? | ☐ | ☐ | ☐ | ☒ |

***a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?***

No Impact. The State Mining and Reclamation Act (SMARA) of 1975 (California Public Resources Code Section 2710 et seq.) requires that the California State Geologist implement a mineral land classification system to identify and protect mineral resources of regional or statewide significance in areas where urban expansion or other irreversible land uses may occur, thereby potentially restricting or preventing future mineral extraction on such lands.

As mandated by SMARA, aggregate mineral resources within the state are classified by the State Mining and Geology Board through application of the Mineral Resource Zone (MRZ) system. The MRZ system is used to map all mineral commodities within identified jurisdictional boundaries, with priority given to areas where future mineral resource extraction may be prevented or restricted by land use compatibility issues, or where mineral resources may be mined during the 50-year period following their classification. The MRZ system classifies lands that contain mineral deposits and identifies the presence or absence of substantial sand and gravel deposits and crushed rock source areas (i.e., commodities used as, or in the production of, construction materials). The State Geologist classifies MRZs within a region based on the following factors (DOC 2000):

- **MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- **MRZ-2a:** Areas underlain by mineral deposits where geologic data show that significant measured or indicated resources are present.
- **MRZ-2b:** Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present.
- **MRZ-3:** Areas containing mineral deposits for which the significance cannot be determined from available data.
- **MRZ-3a:** Areas containing known mineral deposits that may qualify as a mineral resource.
- **MRZ-3b:** Areas containing inferred mineral deposits that may qualify as mineral resources.
- **MRZ-4:** Areas where available information is inadequate for assignment of any other MRZ category.

The City's General Plan does not identify any mineral recovery sites within the vicinity of the College. General Plan Section 3.3.3 identifies only two MRZ designations within the City limits: MRZ-3a (areas containing known mineral deposits that may qualify as mineral resources) and MRZ-2b (areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present) (City of Norco 2014a). The MRZ-2b area is located along the edge of the Temescal Wash near the City of Corona and would not be impacted by the proposed project. Further, the General Plan states that the only known resource that may be valuable locally would be crushed rock for construction-related material and is primarily associated with the Norco Hills and the hills and slopes around Lake Norconian, north and east of the College. However, the General Plan further states that the hillsides are designated for residential purposes, and those hills are more valuable to the City as an open space resource than as a potential mineral resource. Section 3.3.3 concludes that no goals or policies are included in the General Plan to either encourage or preserve opportunities related to mineral extraction.

The proposed project site is not currently being used for mineral resource extraction, has no history of such use, is currently part of the existing College, and is not identified in either the City's General Plan or Zoning Ordinance for such uses. No mining operations would be impacted by the project. Given these factors, the proposed project would not result in the loss of availability of a known mineral resource that would be of future value to the City of Norco, the County of Riverside, or the residents of the state. No impact would occur.

***b) Would the project 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?***

No Impact. Please refer to Section 3.12(a). The proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan. No impact would occur.

## 3.13 Noise

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XIII. NOISE** – Would the project result in: | | | | |
| a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☒ | ☐ | ☐ |
| b) Generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☒ | ☐ |
| c) For a project located within the vicinity of a private airstrip or 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? | ☐ | ☐ | ☐ | ☒ |

Noise is defined as unwanted sound. Sound may be described in terms of level or amplitude (measured in decibels [dB]), frequency or pitch (measured in hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the amplitude of sound is the decibel. Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against low and very high frequencies in a manner approximating the sensitivity of the human ear. Several descriptors of noise (noise metrics) exist to help predict average community reactions to the adverse effects of environmental noise, including traffic-generated noise, on a community. These descriptors include the equivalent noise level over a given period ($L_{eq}$), the statistical sound level ($L_n$), the day–night average noise level ($L_{dn}$), and the community noise equivalent level (CNEL). Each of these descriptors uses units of dBA. Table 3.13-1 provides examples of A-weighted noise levels from common sounds. In general, human sound perception is such that a change in sound level of 3 dB is barely noticeable; a change of 5 dB is clearly noticeable; and a change of 10 dB is perceived as doubling or halving of the sound level.

### Table 3.13-1. Typical Sound Levels in the Environment and Industry

| Common Outdoor Activities | Noise Level (dBA) | Common Indoor Activities |
|---|---|---|
| — | 110 | Rock band |
| Jet flyover at 300 meters (1,000 feet) | 100 | — |
| Gas lawn mower at 1 meter (3 feet) | 90 | — |
| Diesel truck at 15 meters (50 feet), at 80 kilometers per hour (50 mph) | 80 | Food blender at 1 meter (3 feet)<br>Garbage disposal at 1 meter (3 feet) |

## Table 3.13-1. Typical Sound Levels in the Environment and Industry

| Common Outdoor Activities | Noise Level (dBA) | Common Indoor Activities |
|---|---|---|
| Noisy urban area, daytime<br>gas lawn mower at 30 meters (100 feet) | 70 | Vacuum cleaner at 3 meters (10 feet) |
| Commercial area<br>Heavy traffic at 90 meters (300 feet) | 60 | Normal speech at 1 meter (3 feet) |
| Quiet urban daytime | 50 | Large business office<br>Dishwasher, next room |
| Quiet urban nighttime | 40 | Theater, large conference room (background) |
| Quiet suburban nighttime | 30 | Library |
| Quiet rural nighttime | 20 | Bedroom at night, concert hall (background) |
| — | 10 | Broadcast/recording studio |
| Lowest threshold of human hearing | 0 | Lowest threshold of human hearing |

**Source:** Caltrans 2013.

$L_{eq}$ is a sound energy level averaged over a specified period (typically no less than 15 minutes for environmental studies). $L_{eq}$ is a single numerical value that represents the amount of variable sound energy received by a receptor during a time interval. For example, a 1-hour $L_{eq}$ measurement would represent the average amount of energy contained in all the noise that occurred in that hour. $L_{eq}$ is an effective noise descriptor because of its ability to assess the total time-varying effects of noise on sensitive receptors. $L_{max}$ is the greatest sound level measured during a designated time interval or event.

Unlike the $L_{eq}$ metrics, $L_{dn}$ and CNEL metrics always represent 24-hour periods, usually on an annualized basis. $L_{dn}$ and CNEL also differ from $L_{eq}$ because they apply a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when speech and sleep disturbance is of more concern). “Time weighted” refers to the fact that $L_{dn}$ and CNEL penalize noise that occurs during certain sensitive periods. In the case of CNEL, noise occurring during the daytime (7:00 a.m.–7:00 p.m.) receives no penalty. Noise during the evening (7:00 p.m.–10:00 p.m.) is penalized by adding 5 dB, while nighttime (10:00 p.m.–7:00 a.m.) noise is penalized by adding 10 dB. $L_{dn}$ differs from CNEL in that the daytime period is defined as 7:00 a.m.–10:00 p.m., thus eliminating the evening period. $L_{dn}$ and CNEL are the predominant criteria used to measure roadway noise affecting residential receptors. These two metrics generally differ from one another by no more than 0.5 dB to 1 dB; as such, they are often treated as equivalent.

### Vibration

Vibration is an oscillatory motion through a solid medium in which the motion’s amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as blasting, pile driving, and heavy earthmoving equipment.

Several different methods are used to quantify vibration. Peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second (in/sec). The root mean square amplitude is most frequently used to describe the effect of vibration on the human body and is defined as the average of the squared amplitude of the signal. Decibel notation is commonly used to measure root mean square. The decibel notation acts to compress the range of numbers required to describe vibration.

High levels of vibration may cause physical personal injury or damage to buildings. However, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. In addition, high levels of vibration can damage fragile buildings or interfere with equipment that is highly sensitive to vibration (e.g., electron microscopes). Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

## Sensitive Receptors

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodgings, libraries, and some passive recreation areas would be considered noise and vibration sensitive and may warrant unique measures for protection from intruding noise. Sensitive receptors near the project site include residential uses located to the west, the Norco College STEM Center Annex and a middle school to the southeast, and the Norco College central core area to the east. These sensitive receptors represent the nearest land uses with the potential to be impacted by construction and operation of the proposed project.

## Existing Noise Conditions

Noise measurements were conducted near the project site on October 12, 2021, to characterize the existing noise levels (Figure 3, Noise Measurement Locations). Table 3.13-2 provides the location, date, and time the noise measurements were taken. The noise measurements were taken using a Soft dB Piccolo II sound level meter equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute (ANSI) standard for a Type 2 (General Use) sound level meter. The accuracy of the sound level meter was verified using a field calibrator before and after the measurements, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

### Table 3.13-2. Measured Noise Levels

| Receptors | Location | Date | Time | $L_{eq}$ (dBA) | $L_{max}$ (dBA) |
|---|---|---|---|---|---|
| ST1 | Adjacent to residential neighborhood west of project site | 10/12/21 | 10:12 a.m.–10:27 a.m. | 48.4 | 67.8 |
| ST2 | Adjacent to Norco College Applied Technology Building, east of project site on campus quad | 10/12/21 | 10:48 a.m.–11:03 a.m. | 49.1 | 67.1 |
| ST3 | Adjacent to John F. Kennedy Middle College High School, southeast of project site | 10/12/21 | 11:18 am. – 11:33 a.m. | 53.2 | 66.8 |

## Table 3.13-2. Measured Noise Levels

| Receptors | Location | Date | Time | $L_{eq}$ (dBA) | $L_{max}$ (dBA) |
|---|---|---|---|---|---|
| ST4 | Adjacent to residential neighborhood south of project site | 10/12/21 | 11:50 a.m. to 12:05 a.m. | 45.7 | 56.7 |

**Source:** Appendix D.
**Notes:** $L_{eq}$ = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibels; $L_{max}$ = maximum sound level during the measurement interval.

Four short-term noise measurements were conducted at locations (ST1–ST4) adjacent to nearby noise-sensitive land uses. The measured energy-averaged ($L_{eq}$) and maximum ($L_{max}$) noise levels are provided in Table 3.13-2. The field noise measurement data sheets are provided in Appendix D. The primary noise source consisted of traffic on the local roadways (Third Street and campus access roads) and distant aircraft overflights; secondary noise sources included birds, distant barking dogs, and distant conversations. As shown in Table 3.13-2, the measured sound levels ranged from approximately 46 dBA $L_{eq}$ to 53 dBA $L_{eq}$.

## Regulatory Setting

### City of Norco

The project site is located within the City of Norco, as are the existing residences and other noise-sensitive land uses in the surrounding area. The City outlines the noise regulations and standards that pertain to this project in its General Plan (City of Norco 2003) and Municipal Code (City of Norco 2014b). As a state-funded agency, the District is not regulated by City noise standards; although the District will make every effort to adhere to the Municipal Code regulations, it is not bound by them. The information provided below is presented for informational purposes only.

### City of Norco General Plan

The City of Norco has adopted the compatibility guidelines documented by the State Department of Health Services, which specify average noise limits for long-term, stationary noise sources, but does not document specific thresholds for temporary activities, such as construction noise. The following policies within the General Plan Noise Element (City of Norco 2003) pertain to construction noise:

> Policy 2.2.2b. All construction equipment should be equipped with noise attenuation features including mufflers and engine shrouds that are at least as effective as original manufacturer equipment.

> Policy 2.2.2c. The City should regulate wherever feasible the hours of operation for construction areas including haul routes that may include residential streets and/or sensitive land uses.

### City of Norco Municipal Code

Pursuant to Municipal Code Section 9.07.040, general sound level standards, no person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied residential property to exceed a maximum noise level of 55 dBA between 7:00 a.m. and 10:00 p.m., and 45 dBA between 10:00 p.m. and 7:00 a.m. However, construction-related events subject to a permit issued by the City are exempt from the general sound level (City of Norco 2014b). In addition, Sections 15.01.110 and 15.30.020 of the

City of Norco Municipal Code limit construction activity to between 6:30 a.m. and 7:00 p.m. from Monday through Friday (City of Norco 2014c).

The operational noise levels contained in Municipal Code Section 9.07.040 are not applicable to the following (City of Norco 2014b, Section 9.07.020: Exemptions):

A. Facilities owned or operated by or for a governmental agency;

B. Capital improvement projects of a governmental agency;

C. The maintenance or repair of public properties;

D. Public safety personnel in the course of executing their official duties, including, but not limited to, sworn peace officers, emergency personnel and public utility personnel. This exemption includes, without limitation, sound emanating from all equipment used by such personnel, whether stationary or mobile;

E. Public or private schools and school-sponsored activities;

G. City Sanctioned Events. The provisions of this title shall not apply to those reasonable sounds emanating from occasional public and private outdoor or indoor gatherings that require a City permit, public dances, shows, bands, sporting and entertainment events conducted and in compliance with such permit;

I. Private construction projects involving no more than one unit located within one-quarter of a mile from an inhabited dwelling; provided that:

   1. Construction does not occur between the hours of 7:00 p.m. and 7:00 a.m., Monday through Friday and 7:00 p.m. and 8:00 a.m., on Saturday and Sunday, unless specified by permit;

J. Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of 8:00 a.m. and 7:00 p.m.;

K. Motor vehicles, other than off-highway vehicles. This exemption does not include sound emanating from motor vehicle sound systems;

L. Heating, exhaust, and air conditioning equipment;

P. Construction-related single events or continuous events subject to a permit issued by the City of Norco.

***a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

### Construction

Less-Than-Significant Impact with Mitigation Incorporated. Construction noise and vibration levels are temporary phenomena, which can vary from hour to hour and day to day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor.

Equipment that would be in operation during proposed construction would include, in part, excavators, concrete saws, compressors, welders, and paving equipment. Table 3.13-3 presents typical maximum noise levels for various pieces of construction equipment at a distance of 50 feet (note that these are maximum noise levels). Typically, construction equipment operates in alternating cycles of full power and low power, producing average noise levels less than the maximum noise level presented in Table 3.13-3. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time. Construction noise in a well-defined area typically attenuates at approximately 6 dB per doubling of distance.

### Table 3.13-3. Typical Construction Equipment Noise Emission Levels

| Equipment | Typical Sound Level (dBA) 50 Feet from Source |
|---|---|
| Air Compressor | 81 |
| Backhoe | 80 |
| Compactor | 82 |
| Concrete Mixer | 85 |
| Concrete Pump | 82 |
| Concrete Vibrator | 76 |
| Crane, mobile | 83 |
| Dozer | 85 |
| Generator | 81 |
| Grader | 85 |
| Impact Wrench | 85 |
| Jackhammer | 88 |
| Loader | 85 |
| Paver | 89 |
| Pneumatic Tool | 85 |
| Pump | 76 |
| Roller | 74 |
| Saw | 76 |
| Truck | 88 |

**Source:** FTA 2018.
**Note:** dBA = A-weighted decibels.

Project construction would take place within approximately 90 feet of the nearest noise-sensitive land uses (the Norco College campus quad area to the east). The nearest off-campus noise-sensitive land use would be residences located approximately 455 feet to the west of the project site. Other residences are located approximately 800 feet to the south, and the John F. Kennedy Middle College High School is located approximately 1,500 feet to the southeast.

The Federal Highway Administration's Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels. Although the RCNM was funded and promulgated by the Federal Highway Administration, it is often used for non-roadway projects because the same types of construction equipment used for roadway projects are often used for other types of construction. Input variables for the RCNM consist of the receiver/land use types, the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of hours the equipment typically works per day), and the distance from the noise-sensitive receiver. No topographical or structural shielding was assumed in the modeling. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this noise analysis.

Construction scenario assumptions, including phasing and equipment mix, were based on information from the District and the CalEEMod default values developed for the air quality and GHG emissions impacts analysis. Table 3.13-4 summarizes these estimated construction noise levels by construction phase. The RCNM inputs and outputs are provided in Appendix D.

## Table 3.13-4. Construction Noise Model Results Summary

| Construction Phase | Construction Noise at Nearest Receiver Distances (dBA $L_{eq}$ ) | | | |
|---|---|---|---|---|
| | Residences to the West[a] (Approx. 455 feet) | Residences to the South (Approx. 800 feet) | John F. Kennedy Middle College High School (Approx. 1,500 feet) | Norco College Campus Quad (Approx. 90 feet) |
| Demolition | 62 | 62 | 56 | 80 |
| Site Preparation | 60 | 60 | 54 | 78 |
| Grading | 59 | 60 | 54 | 77 |
| Trenching | 56 | 57 | 51 | 75 |
| Building Construction | 57 | 57 | 52 | 75 |
| Paving | 62 | 59 | 54 | 76 |
| Architectural Coating | 50 | 50 | 44 | 67 |

**Source:** Appendix D.

**Notes:** dBA = A-weighted decibels; $L_{eq}$ = equivalent sound energy level.

[a] Accounts for a conservative 5 dB noise reduction from the solid, approximately 6-foot-high masonry property line wall. This noise reduction of 5 dB is the minimum that would be realized from a barrier that breaks the line of sight between the source and receiver.

As shown in Table 3.13-4, the construction noise levels during the nearest construction work, at the adjacent Norco College campus quad, are predicted to range from approximately 67 dBA $L_{eq}$ (during the architectural coating phase) to approximately 80 dBA $L_{eq}$ (during demolition). At the nearest off-site noise-sensitive land uses (residences to the west), the construction noise levels are predicted to range from approximately 50 dBA $L_{eq}$ to approximately 62 dBA $L_{eq}$. Compared to the ambient noise levels measured in the project vicinity, noise levels from construction would (during the louder phases) result in substantial temporary noise level increases at the adjacent noise-sensitive land uses. With implementation of MM-NOI-1 (provided at the end of Section 3.13[a]), noise levels from construction activities would be reduced to a less-than-significant level.

### Operation

Less-Than-Significant Impact. Long-term (i.e., operational) noise associated with the proposed project would include traffic noise from additional vehicle trips, as well as noise from on-site mechanical equipment such as HVAC equipment.

### Traffic Noise

The proposed project would generate additional traffic trips along existing roads in the area, particularly Third Street, from which the staff, students, and visitors of the proposed project would access the project site. Based on traffic counts and analyses conducted for a nearby recent project (Urban Crossroads 2020), Third Street currently has typical weekday average daily traffic volumes in the project vicinity of approximately 9,800 vehicles, with projected Year 2023 average daily traffic volumes of approximately 12,000. Based on calculations conducted as part of the transportation analysis, the proposed project would generate approximately 1,150 additional daily trips. Because it generally requires a doubling of traffic volumes to increase the ambient noise level by 3 dB, which constitutes the change in sound level that the average listener would describe as barely noticeable (Harris 1991), the incremental increase in vehicle trips (approximately 11% compared to Year 2020 volumes, and approximately 10% compared to Year 2023 volumes) from the project would be far less than the doubling of traffic required to produce a noticeable change in traffic noise levels. Thus, the potential noise impact associated with project traffic would be less than significant.

### On-Site Mechanical Equipment and Event Noise

HVAC and related equipment would have the potential to create noise impacts. Based on information provided by the District, a variety of exterior mechanical equipment would be located either on the building roof or adjacent to the building. Using the provided information (included in Appendix D), and conservatively assuming that all such equipment would be rooftop mounted,[16] a Microsoft Excel-based outdoor sound propagation prediction model was used to calculate the combined noise level from all HVAC units and associated equipment at nearby community receptors using several assumptions:

- Treatment of exposed roof-mounted HVAC condenser units and other equipment as point-type sound emission sources
- Point-source sound propagation (i.e., 6 dB per doubling of distance) that conservatively ignores acoustical absorption from atmospheric and ground surface effects
- Assumed simultaneous operation of all equipment

In addition, because the condenser units are expected to be roof-mounted, the prediction model separately evaluates potential noise path occlusion due to the proposed project's intervening building structure.

Using the aforementioned noise prediction model, and without consideration of noise reduction due to acoustical shielding from structures other than the proposed project, the noise levels from the combination of all operating equipment at the nearby receivers was estimated, as summarized in Table 3.13-5. The maximum hourly noise level for all the mechanical equipment at nearby residences would range from approximately 34 to 39 dBA $L_{eq}$, which is below the City's noise standard for residential land uses of 55 dBA $L_{eq}$ during daytime hours (7:00 a.m. to 10:00 p.m.) and 45 dBA $L_{eq}$ during nighttime hours (10:00 p.m. to 7:00 a.m.). At the John F. Kennedy Middle College High School, noise from mechanical equipment would be approximately 33 dBA $L_{eq}$, while at the nearby on-campus quad area south of the project site, the estimated worst-case noise level from mechanical equipment is approximately 52 dBA $L_{eq}$. No applicable stationary-source noise standards exist for the noise levels at either the John F. Kennedy Middle College High School or Norco College; however, the estimated mechanical noise levels would be less than the measured ambient noise levels at these and at the residential locations and would not result in a substantial noise increase. Therefore, impacts associated with on-site mechanical noise would be less than significant.

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[16] The assumption that all exterior noise-generating equipment would be located on the rooftop is more conservative than assuming that equipment would be ground mounted, because the additional elevation would result in somewhat increased noise propagation. Additionally, it was conservatively assumed that no rooftop parapets or other acoustical shielding would be provided.

## Table 3.13-5. Estimated Mechanical Equipment Noise Levels at Sensitive Receptors

| Equipment | Noise Level at Nearby Noise-Sensitive Receiver | | | |
|---|---|---|---|---|
| | Receiver Location | Average Noise Level (dBA $L_{eq}$) | Applicable Noise Standard – Daytime/Nighttime (dBA $L_{eq}$)[a] | Noise Standard Exceeded? |
| HVAC and associated mechanical equipment | Residences to the west | 38.7 | 55/45 | No |
| | Residences to the south | 34.4 | 55/45 | No |
| | John F. Kennedy Middle College High School, southeast of project site | 32.9 | N/A | N/A |
| | Norco College Applied Technology Building, east of project site on campus quad | 51.5 | N/A | N/A |

**Source:** Appendix D.

**Notes:** dBA = A-weighted decibels; $L_{eq}$ = equivalent continuous sound level (time-averaged sound level); N/A = not applicable (these land uses are exempt from noise standards from mechanical noise).

[a] Per Norco Municipal Code Section 9.07.040; daytime = 7:00 a.m. to 10:00 p.m.; nighttime = 10:00 p.m. to 7:00 a.m.

The proposed project would not include or result in any outdoor events. All events would be held in the proposed building. Therefore, noise from on-site events would not exceed City noise standards and would not result in a substantial noise level increase compared to existing measured ambient noise levels. Therefore, noise from proposed events would be less than significant. No mitigation is required.

### Mitigation Measure

To reduce potentially significant impacts related to construction of the proposed project, the following mitigation is provided:

**MM-NOI-1** Prior to grading permit issuance, the Riverside Community College District shall ensure the following:

- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers.
- Construction noise-reduction methods, such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from or shielded from sensitive noise receivers.
- During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise-sensitive receptors.
- Construction activities shall be limited to the hours of 7:00 a.m. to 5:00 p.m., Monday through Saturday.

### *b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Less-Than-Significant Impact. Construction activities have the potential to expose persons to excessive groundborne vibration or groundborne noise. Caltrans has collected groundborne vibration information related to construction activities indicating that continuous vibrations with a PPV of approximately 0.1 in/sec begin to annoy people (Caltrans 2020). The heavier pieces of construction equipment, such as excavators, would have PPVs of approximately 0.089 in/sec or less at a distance of 25 feet (FTA 2018). Groundborne vibration is typically attenuated over short distances. At the distance from the Norco College campus quad to the nearest construction work (approximately 90 feet), and with the anticipated construction equipment, the PPV vibration level would be approximately 0.013 in/sec. This vibration level would be well below the vibration threshold of potential annoyance of 0.1 in/sec.

At the distance from the nearest residences to the nearest construction work (approximately 455 feet), and with the anticipated construction equipment, the PPV vibration level would be approximately 0.001 in/sec. This vibration level would also be well below the vibration threshold of potential annoyance of 0.1 in/sec. During the rest of the construction work, the distances to the nearest off-site noise- and vibration-sensitive land uses would be greater, and the vibration levels would be correspondingly lower.

The major concern with regard to construction vibration is related to building damage. Construction vibration as a result of the proposed project would not result in structural building damage, which typically occurs at vibration levels of 0.5 in/sec or greater for buildings of reinforced-concrete, steel, or timber construction. The heavier pieces of construction equipment used would include typical construction equipment for this type of project, such as backhoes, front-end loaders, and flatbed trucks. Pile driving, blasting, and other special construction techniques would not be used for construction of the proposed project; therefore, excessive groundborne vibration and groundborne noise would not be generated. Vibration levels from project construction would be less than the thresholds of annoyance and potential for structural damage. Operation of the proposed project would not result in any sources of vibration. Therefore, impacts would be less than significant.

### *c) For a project located within the vicinity of a private airstrip or 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?*

No Impact. The closest airport to the project site is Corona Municipal Airport, which is located approximately 2.1 miles southwest of the project site. According to Riverside County Airport Land Use Compatibility Plan (Riverside County ALUC 2004), the project site is located outside the Corona Municipal Airport's influence area boundary. Thus, air traffic noise associated with the airport would not expose construction workers, operational staff, students, or visitors to excessive noise levels. Therefore, no impacts associated with public airport and associated air traffic noise would occur.

# 3.14 Population and Housing

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XIV. POPULATION AND HOUSING** – Would the project: | | | | |
| a) Induce substantial unplanned 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)? | ☐ | ☐ | ☒ | ☐ |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☒ | ☐ |

***a) Would the project induce substantial unplanned 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)?***

Less-Than-Significant Impact. The proposed project would not directly induce substantial population growth in the area, because no residential units are proposed as part of the project. However, the proposed project would require a temporary construction workforce, which would potentially induce population growth in the project area. The temporary workforce would be needed to construct the proposed CHP+K Building and associated on-site improvements. The number of construction workers needed during any given period would largely depend on the specific stage of construction but would likely average a few dozen workers at any given time throughout the workday. These short-term positions are anticipated to be filled primarily by workers who reside in the project site vicinity; therefore, construction of the proposed project would not generate a permanent increase in population in the project area.

Upon completion, the proposed project would consist of a new building to support Norco College's physical education program. The District, as the lead agency, has acknowledged the need for a permanent facility to encourage the growth of the College's existing physical education program and provide students with valuable education opportunities. These opportunities include lab activities and courses, which would create career technical education programs and promote student success and student transfers to 4-year institutions. Additionally, the operation of the proposed project may require an increase in staff. However, the increase would be minimal and would not induce population growth.

Further, the proposed project would generally connect to existing utilities and infrastructure located adjacent to the project site. The proposed project would not construct new or extend existing utilities or infrastructure into areas not currently served by such improvements. Thus, the proposed project would not indirectly induce population growth, and impacts associated with population growth inducement would be less than significant.

***b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

No Impact. The proposed project consists of the construction of the proposed CHP+K Building to support the College's existing physical education program on an existing lot within the College's boundaries. The proposed project would not displace existing housing or people and would not necessitate the construction of replacement housing elsewhere. Therefore, no impact would occur.

# 3.15 Public Services

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XV. 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: | | | | |
| Fire protection? | ☐ | ☐ | ☒ | ☐ |
| Police protection? | ☐ | ☐ | ☒ | ☐ |
| Schools? | ☐ | ☐ | ☐ | ☒ |
| Parks? | ☐ | ☐ | ☐ | ☒ |
| Other public facilities? | ☐ | ☐ | ☐ | ☒ |

***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:***

***Fire protection?***

Less-Than-Significant Impact. The City has two fire stations within its boundaries: Fire Station No. 21 (the Corydon Avenue Fire Station, 3367 Corydon Avenue, Norco, California) and Fire Station No. 22 (Sixth Avenue Fire Station, 3902 Hillside Avenue, Norco, California). The Corydon Avenue Fire Station is within 3 miles of the proposed project site and would likely service Norco College as needed. The Corydon Avenue Fire Station houses a 1,500-gallon-per-minute first-line fire engine, a reserve engine, and paramedics, and is staffed 24 hours a day, 7 days a week. The City also has mutual aid responses from Corona City Fire Department and CAL FIRE for large vegetation or structure fires.

Although the proposed project may require fire protection and/or paramedic services in the event of an emergency, the proposed project is not expected to result in the need for new or physically altered fire facilities or result in the stations' inability to maintain acceptable service ratios, response times, or other performance objectives. The increase in demand for fire protection services due to the proposed project would result in a less-than-significant impact.

***Police protection?***

Less-Than-Significant Impact. While the City is served by the City's Police Department in order to address any issues in and around Norco College, the District has its own safety and police department, with sworn officers, reserve officers, community service aides, and clerical staff members (District 2022). The bulk of the District safety and police department staff are located at the main college in Riverside; however, a number of full-time officers are assigned to Norco College, as well as a number of community service officers and part-time officers for shift overlap and special services. The proposed project is not anticipated to place a new demand on the existing police functions and would only involve the relocation of a use that already occurs within the College grounds. Therefore, the proposed project would result in a less-than-significant impact to police protection services.

***Schools?***

No Impact. As discussed previously in Section 3.14(a) (Population and Housing), implementation of the proposed project would not increase the population within the area. The proposed project would include the construction of the proposed CHP+K Building to support Norco College's existing physical education program. Operation of the proposed project is not expected to result in a substantial increase in students. Therefore, the project would not generate the need for additional school capacity. No impact would occur.

***Parks?***

No Impact. As discussed previously in Section 3.14(a), implementation of the proposed project would not increase the population within the area. The proposed project would include the construction of the proposed CHP+K Building to support Norco College's existing physical education program. The proposed project site is located approximately 0.22 miles from Lake Norconian and the surrounding hiking trails. However, the proposed project would be located within the College's boundaries and would not affect the hiking trails. Therefore, no impacts would occur.

***Other public facilities?***

No Impact. As discussed previously in Section 3.14(a), implementation of the proposed project would not increase the population within the area. The proposed project would include the construction of the proposed CHP+K Building to support Norco College's existing physical education program. The proposed project would not result in adverse impacts related to the provision of other public facilities, including emergency medical services or libraries. No impacts to other public facilities are anticipated.

# 3.16 Recreation

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVI. 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? | ☐ | ☐ | ☐ | ☒ |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☒ | ☐ |

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?***

No Impact. The proposed project does not include any residential uses that may increase the utilization of existing neighborhood parks in the vicinity such that substantial physical deterioration of the facility or an increase in park facilities would occur or be accelerated. The proposed project consists of the construction of a proposed CHP+K Building to support the College's existing physical education program. No impacts related to an increase in use of existing parks will occur.

b) ***Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?***

Less-Than-Significant Impact. Under existing conditions, the Norco College campus includes recreational facilities. The proposed project consists of the construction of an CHP+K Building to support the College's existing physical education program, which would include the construction of recreational facilities. The proposed project would include athletic spaces to be used for recreational purposes, such as a multi-use gymnasium, weight room, training room, cardio and wellness studio, and exercise studios. As discussed throughout this MND, the proposed project would be located within the College's boundaries and would serve existing and future Norco College students. Therefore, impacts relating to the proposed recreational facilities would be less than significant.

# 3.17 Transportation

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVII. TRANSPORTATION** – Would the project: | | | | |
| a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | ☐ | ☐ | ☒ | ☐ |
| b) Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)? | ☐ | ☐ | ☒ | ☐ |
| c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☒ | ☐ |
| d) Result in inadequate emergency access? | ☐ | ☐ | ☒ | ☐ |

This section analyzes the potential impacts of the proposed project based on CEQA Guidelines Section 15064.3(b), which focuses on newly adopted criteria (vehicle miles traveled [VMT]) for determining the significance of transportation impacts. Pursuant to SB 743, the focus of transportation analysis changed from level of service or vehicle delay to VMT. The related updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. This new methodology was required to be used statewide beginning July 1, 2020. The proposed project site is located in the City of Norco, which is a member agency of the WRCOG. Therefore, for the purposes of this section, the VMT screening, analysis methodology, and thresholds identified within the WRCOG Traffic Impact Analysis Guidelines (WRCOG 2020) have been used.

The project's trip generation shown below is for informational purposes and is not used for the purpose of determining effects based on traffic delay or congestion. However, it has been used in evaluating mobile emissions and noise impacts. The proposed project would result in the addition of approximately 1,000 new students and 6 new employees. Using the Junior/Community College trip rate per student per the Institute of Transportation Engineers' Trip Generation Manual, 11th Edition (ITE 2021), the proposed project is estimated to generate a total of 1,150 daily trips, with 110 AM peak hour trips and 110 PM peak hour trips, as shown in Table 3.17-1.

### Table 3.17-1. Project Trip Generation

| Land Use | Size/Units | Daily | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|
| | | | In | Out | Total | In | Out | Total |
| **Trip Generation Rates**[a] | | | | | | | | |
| Junior/Community College | Student | 1.15 | 0.09 | 0.02 | 0.11 | 0.06 | 0.05 | 0.11 |
| **Trip Generation** | | | | | | | | |
| Norco College CHP+K Building | 1,000 students | 1,150 | 89 | 21 | 110 | 62 | 48 | 110 |

**Notes:** CHP+K = Center for Human Performance and Kinesiology.

[a] Daily trip rates from ITE 2021.

The following analysis describes the project's potential impacts to programs, plans and policies, VMT, hazards related to geometric design, and emergency access.

*a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Less-Than-Significant Impact. The Circulation Element of the City's General Plan (City of Norco 2000) is the guiding document for a safe, convenient, and efficient system for the City's transportation needs of both existing and future development. The following goals are included in the City's General Plan Circulation Element:

Goal 1. A circulation network of equestrian trails and streets, integrated with the planned land uses, that provide for a safe, efficient, and economic movement of people and goods.

Goal 2. Encourage the use of alternate transportation modes.

Goal 3. Separate vehicular traffic associated with the regional commuter and commercial users from residential areas.

Goal 4. Ensure the provision of adequate off-street parking for all land uses including Sixth Street where a provision has been made to reduce on-site parking requirements in exchange for pedestrian connections between adjoining buildings, properties, and public parking facilities.

The project would not conflict with or preclude implementation of any of the above-mentioned goals or policies included in the City's General Plan Circulation Element (City of Norco 2000).

### Roadway Facilities

The roadway segment of Third Street from Hamner Avenue to its terminus in a cul-de-sac near the western boundary of Norco College is classified as a Collector in the City's General Plan Circulation Element (City of Norco 2000). The posted speed limit along Third Street near the project site is 35 mph. Third Street is part of Norco's Equestrian Circulation System. The Norco Horse Trail runs parallel to Third Street and is adjacent to the northern border of the project site.

Third Street is fully dedicated and improved with ultimate street improvements and it has a raised median throughout most of its length. It is generally built with four lanes of travel (two lanes in each direction); however, adjacent to the John F. Kennedy Middle College High School and Norco College site up to Mustang Court, it is built with three lanes in each direction and an additional eastbound left-turn lane at the intersections providing access to Norco College and John F. Kennedy Middle College High School. It should be noted that Norco College generally implements traffic management measures (traffic cones and barricades at the Windy Way/Third Street and John F. Kennedy Middle College High School Driveway/STEM Center Driveway intersections) along this roadway segment that prohibit left turns in and out of the driveways along Third Street. Third Street culminates in a cul-de-sac with access to West End Drive, which would provide direct access to the proposed project.

### Transit, Bicycle, and Pedestrian Facilities

Per the City's Circulation Element, with the exception of the Primary Access Trail along Third Street, which is intended to integrate pedestrian, equestrian, and bicycle circulation, all bicycle traffic in Norco is intended to stay within the street pavement. Therefore, Third Street does not have a separate bicycle path or lane, and recent traffic study and counts conducted in the vicinity of the proposed project indicate that very few bicyclists travel through the area.

There is a paved sidewalk along both sides of Third Street that connects to the existing buildings on the College campus and parking areas. Paved sidewalks are constructed along all driveways that provide access to the College campus, including West End Drive. Pedestrian access across Third Street, near the Norco College STEM Center Annex, is facilitated by a High-Intensity Activated Crosswalk (HAWK) signal and crosswalk.

The Riverside Transit Agency provides fixed-route service to the project site. Route 3 operates along Third Street and connects Norco College to the Corona Transit Center and Eastvale and provides service on weekdays and weekends. Route 3 operates from 6:19 a.m. to 9:30 p.m. on weekdays, with service approximately every 70 to 75 minutes, and from 6:35 a.m. to 6:44 p.m. on weekends, with service every 2 hours. The nearest transit stop is located close to Norco College's western entrance along West End Drive.

As discussed above, the proposed project would be served by existing roadway, transit, bicycle, and pedestrian facilities and would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant.

***b) Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?***

Less-Than-Significant Impact. CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. It is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The updated CEQA Guidelines state that "generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts," and define VMT as "the amount and distance of automobile travel attributable to a project." *Automobile* refers to on-road passenger vehicles, specifically cars and light trucks. The Governor's Office of Planning and Research has clarified in its Technical Advisory (OPR 2018) that heavy-duty truck VMT is not required to be included in the estimation of a project's VMT. Other relevant considerations may include the effects of a project on transit and non-motorized traveled.

The proposed project would be categorized under CEQA Guidelines Section 15064.3(b)(1) as a land use project, for the purpose of VMT analysis. A project's VMT analysis should follow the guidelines in the WRCOG Traffic Impact Analysis Guidelines, dated February 13, 2020, and provide the screening criteria and methodology for VMT analysis. Projects that pass at least one screening criteria are generally expected to cause a less-than-significant impact without conducting a detailed VMT analysis. This is consistent with the Governor's Office of Planning and Research's Technical Advisory, which states that projects that meet the screening thresholds based on their location and project type may be presumed to result in a less-than-significant transportation impact (OPR 2018).

### Project Type Screening for VMT Analysis

Local-serving projects may be presumed to have a less-than-significant impact absent substantial evidence to the contrary because they serve the local area's needs and have the effect of reducing vehicle travel. The proposed project does not include any retail components; however, according to the WRCOG Traffic Impact Analysis Guidelines, local-serving projects that by definition would decrease the number of trips or the distance those trips travel to access the development (and are VMT-reducing projects) include the following:

- Local-serving K–12 schools
- Local parks
- Daycare centers
- Local-serving gas stations
- Local-serving banks
- Local-serving hotels (e.g., non-destination hotels)
- Student housing projects
- Local-serving community colleges that are consistent with the assumptions noted in the RTP/SCS

As shown above, local-serving community colleges that are consistent with the assumptions noted in the 202–2045 RTP/SCS can be presumed to have a less-than-significant impact. Because the proposed project is part of a local-serving community college and does not include a land use or zoning designation change, it is consistent with the RTP/SCS and therefore can be presumed to have a less-than-significant VMT impact.

Therefore, the proposed project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b), and impacts would be less than significant.

***c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?***

Less-Than-Significant Impact. Vehicular access to the proposed project would be primarily via the existing West End Drive driveway connecting to Third Street. This access leads to the existing Norco College Center for Student Success and connects to the parking lots on the project site. The proposed project would add a new building to the existing campus and use the existing internal roadways for access and circulation. The proposed project would not construct any new roadways or intersections on the existing campus. During construction, no lane closures, sidewalk closures, or changes in campus vehicular and pedestrian circulation would occur. Therefore, the proposed project would not increase hazards due to a geometric design feature or incompatible use and impacts would be less than significant.

***d) Would the project result in inadequate emergency access?***

Less-Than-Significant Impact. All project-related traffic would access the existing parking lot via four access driveways or locations along Third Street. The driveways lead directly to passenger vehicle parking lots serving the entire Norco College site. All parking lots provide adequate internal circulation that accommodates two-way traffic and parking lot drive aisles large enough to adequately accommodate all vehicles. The project would comply with all federal, state, regional, and local guidelines related to emergency access. Emergency vehicles would be able to access all buildings and driveways within the project site. The project site would be accessible to emergency responders during construction and operation of the project.

The project would not adjust or alter Third Street or access to the parking area and therefore would not create significant impediments for emergency access. Norco College has implemented traffic management measures (traffic cones and barricades at John F. Kennedy Middle College High School/STEM Center driveway/Third Street and Windy Way/Third Street intersections) that prohibit left turns in and out of Third Street. However, adequate emergency access would be provided during both short-term construction and long-term operation of the proposed project. Construction of the proposed project would not involve any street or driveway closures that could impede emergency access. Therefore, the project would not result in inadequate emergency access and impacts would be less than significant.

## 3.18 Tribal Cultural Resources

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XVIII. TRIBAL CULTURAL RESOURCES** | | | | |
| a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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: | | | | |
| i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | ☐ | ☒ | ☐ | ☐ |
| ii) 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 Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ☒ | ☐ | ☐ |

The evaluation of potential impacts to Tribal Cultural Resources (TCRs) is based on the findings resulting from tribal consultation conducted by the District, as the lead agency. Findings were also based on the Archaeological Resources Inventory Letter Report for the Norco College Center for Human Performance and Kinesiology Project, Riverside County, California, prepared by Dudek in March 2022, and included as Appendix B.

The project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to TCRs as part of the CEQA process, and that the lead agency notify California Native American Tribal representatives (that have requested notification) who are traditionally or culturally affiliated with the geographic area of the project. All NAHC-listed California Native American Tribal representatives that have requested project notification pursuant to AB 52 were sent letters by the District on October 14, 2021, via U.S. Postal Service certified mailing and email. The notification letters contained a project description, outline of AB 52 timing, an invitation to consult, a project site plan, and contact information for the appropriate lead agency representative. To date, the District has received two responses as a result of the notification letters. Table 3.18-1 summarizes the results of the AB 52 process for the project. The confidential AB 52 consultation results are on file with the District.

## Table 3.18-1. AB 52 NAHC-Listed Native American Contacts

| Native American Tribal Representatives | Response Received |
|---|---|
| Gabrieleño Band of Mission Indians-Kizh Nation | 1. On October 21, 2021, the Gabrieleño Band of Mission Indians responded to the District email and requested AB 52 consultation.<br>2. On December 14, 2021, a call with the tribe occurred to initiate AB 52 Consultation.<br>3. On December 14, 2021, the District emailed the geological report and project drawings to the tribe.<br>4. On December 22, 2021, the tribe sent an email with some documentation regarding TCRs and new proposed mitigation measure language.<br>5. On April 15, 2022, the District sent an email to the tribe explaining that the suggested mitigation measure language would not be adopted, and stated that consultation would be closed.<br>6. On April 28, 2022, the tribe replied and stated that the AB 52 consultation cannot be closed until both parties agree on the mitigation. They asked the District to implement the mitigation measures they provided on December 22, 2021.<br>7. On May 3, 2022, Brandy Salas followed up regarding the District response referring to the tribe's email on April 28, 2022.<br>8. The District responded on May 5, 2022, that the District would review their request and would provide feedback shortly.<br>9. The District reviewed the tribe's request to adopt the suggested mitigation measures and responded on June 9, 2022. The email stated that the District would not adopt the suggested mitigation measure language and that consultation was closed.<br>10. On June 9, 2022, and June 28, 2022, the tribe responded by providing documentation of TCRs. The District asked for the location of the resources on June 22, 2022. The tribe did not provide the location.<br>11. On August 5, 2022, the District emailed the tribe, stating that the District would not adopt the suggested mitigation measure language and would proceed with the mitigation measure language from April 15, 2022. The District closed consultation again.<br>12. On August 5, 2022, Brandy Salas responded to the District email and requested a follow up on the mitigation measures with their members of tribal counsel and legal counsel.<br>13. The District's Facilities and Development team had a call with the tribe on June 20, 2023, and received documentation from the tribe on the same day. |

## Table 3.18-1. AB 52 NAHC-Listed Native American Contacts

| Native American Tribal Representatives | Response Received |
|---|---|
| | 14. After June 20, 2023, the District reviewed the documents and mitigation measure recommendations submitted by the tribe. In good faith, the District agreed to some recommended revisions of the mitigation measures by the tribe. A detailed email with the modified mitigation measures was sent to the tribe on June 10, 2024, officially closing the AB 52 consultation.<br>15. On June 11, 2024, the District received an email from Brandy Salas stating that Chairman Salas would like to speak with the District.<br>16. On June 17, 2024, the District received an email from Brandy Salas stating that Chairman Salas has been trying to reach the District by phone to discuss the mitigation measures, copying their legal counsel as well. Because the District closed the AB 52 consultation in good faith, they did not return the call. |
| Pechanga Band of Luiseño Indians | 1. On November 5, 2021, the Pechanga Band of Luiseño Indians responded to the District letter dated October 14, 2021, and requested AB 52 Consultation.<br>2. A call occurred on December 16, 2021, to initiate consultation.<br>3. Revised mitigation measures based on the Pechanga Band's concern were sent to the tribe on April 15, 2021. No further follow up was received. Consultation closed on April 22, 2022. |

a) ***Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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:***

i) ***Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***

Less-Than-Significant Impact with Mitigation Incorporated. Dudek requested a search of the NAHC Sacred Lands File (SLF) on October 29, 2021, to determine the presence of any Native American cultural resources within the project site. The NAHC maintains and reviews the SLF. The NAHC SLF records search results were negative for known Native American heritage resources within the project site. The NAHC identified 20 Native American individuals who would potentially have specific knowledge as to whether or not other cultural resources are identified within the project site that could be at-risk. In compliance with AB 52, the District contacted all NAHC-listed traditionally geographically affiliated tribal representatives that requested project notification as discussed above.

As discussed in Section 3.5, no previously recorded archaeological resources of Native American origin or TCRs listed in the California Register of Historical Resources or a local register were identified within the project site as a result of the CHRIS records search. However, per a discussion with the tribes, Norco College is within a culturally sensitive area. With the implementation of MM-CUL-1, MM-CUL-2, and MM-TCR-1, impacts would be less than significant with mitigation incorporated.

### MM-TCR-1 Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

A. The project applicant/lead agency shall retain a Native American Monitor. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/ definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the tribe. Monitor logs will identify and describe any discovered Tribal Cultural Resources (TCRs), including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, Tribal Cultural Resources, or "TCRs"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the tribe.

***ii) 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 Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

Less-Than-Significant Impact with Mitigation Incorporated. The project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to TCRs as part of the CEQA process and requires lead agencies to provide notification of proposed projects to California Native American Tribal representatives that have requested such notifications. As previously discussed, the District received two responses as a result of the notification letters. Of the responses received, two tribes, Pechanga Band of Luiseño Indians and Gabrieleño Band of Mission Indians-Kizh Nation, responded with their input on the project's impacts to TCRs. It was determined that with the implementation of MM-CUL-1, MM-CUL-2, and MM-TCR-1, potentially significant impacts to TCRs would be reduced to less than significant with mitigation incorporated.

# 3.19 Utilities and Service Systems

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XIX. UTILITIES AND SERVICE SYSTEMS** – Would the project: | | | | |
| a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | ☐ | ☐ | ☒ | ☐ |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | ☐ | ☐ | ☒ | ☐ |
| c) Result in a determination by the wastewater treatment provider which 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? | ☐ | ☐ | ☒ | ☐ |
| d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | ☐ | ☐ | ☒ | ☐ |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | ☐ | ☐ | ☒ | ☐ |

***a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

### Wastewater Treatment Facilities

Less-Than-Significant Impact. The Western Municipal Water District (WMWD) manages the wastewater for the proposed project service area. According to the WMWD's updated 2020 Urban Water Management Plan (UWMP), the wastewater collection system for the College is serviced by WMWD (WMWD 2021). WMWD currently treats wastewater via the Western Water Recycling Facility and the West Riverside County Regional Wastewater Treatment Plant. These two plants process the bulk of WMWD's service area, aside from a small portion treated by the City of Riverside. The City of Norco is primarily serviced by the West Riverside County Regional Wastewater Treatment Plant, which has a design capacity of 14 million gallons per day, providing more than sufficient wastewater capacity for the proposed project and growth within the WMWD service area. Both facilities produce tertiary effluent as part of their processes, which is suitable for subsequent uses such as irrigation but is typically cleaned and discharged into the Santa Ana River.

Existing sewer infrastructure is located within roadways surrounding the Norco College campus and the proposed project site, and it is anticipated to have adequate capacity to serve the proposed project. The proposed project would only minimally increase Norco College's wastewater generation and would not require any necessary improvements to existing infrastructure serving the project site. The proposed project would not result in the need for additional wastewater treatment capacity or infrastructure beyond what is already planned as part of the WMWD and City of Norco planning efforts. The District would construct all necessary infrastructure extensions of existing lines to the site to meet the sewer demands of the proposed project. In addition, the District would pay all applicable connection fees and monthly usage charges that may be necessary as part of the final project. Any potential impacts related to wastewater would be less than significant.

### Water Treatment Facilities

Less-Than-Significant Impact. The proposed project's water demands would be served by existing water supplies, and the project would not require the construction of new water treatment facilities. Existing water conveyance infrastructure is located within roadways surrounding the Norco College and the proposed project site, and it is anticipated to have adequate capacity to serve the proposed project. The proposed project would only minimally increase Norco College's water demand and would not require any necessary improvements to existing infrastructure serving the project site. The proposed project would not result in the need for additional water conveyance infrastructure beyond what is already planned as part of the WMWD and City planning efforts. The District would construct all necessary infrastructure extensions of existing lines to the site to meet the water demands of the project. In addition, the District would pay all applicable connection fees and monthly charges that may be necessary as part of the final project. Any potential impacts related to water would be less than significant. Therefore, impacts associated with the construction of new or expanded water treatment facilities would be less than significant.

### Stormwater Facilities

Less-Than-Significant Impact. The proposed project would include the construction of the proposed CHP+K Building to support Norco College's existing physical education program. Thus, implementation of the proposed project would increase the amount of impervious area on site and alter the existing drainage patterns. The proposed project would be required to conform to all applicable federal, state, and local requirements, including the current MS4 Permit adopted by the Santa Ana RWQCB. Compliance with these requirements would ensure that the new drainage system is designed with adequate capacity to capture stormwater flow. Therefore, impacts associated with the construction of new or expanded stormwater facilities would be less than significant.

### Other Facilities

Less-Than-Significant Impact. As part of the proposed project, utility service lines, including those for electric power, natural gas, and telecommunications services, would be extended from their current locations within the College campus to the project site for operation of the proposed project. Given that the activity of connecting utilities from their current locations on campus to the proposed project would require ground disturbance and the use of heavy machinery associated with trenching, the connection of these utility services to the proposed project would potentially result in environmental effects. However, the extension of these utility lines is part of the proposed project analyzed herein. As such, any potential environmental impacts related to these components of the proposed project are already accounted for in this MND as part of the impact assessment conducted for the entirety of the proposed project. No adverse physical effects beyond those already disclosed in this MND would occur as a result of implementation of the proposed project's utility system connections. Additionally, the proposed project would constitute a nominal increase in utility usage, which has already been accounted for in growth projections for the College, the City, and by each utility provider. No modifications to utility infrastructure would be necessary outside the project site. As such, impacts associated with the construction or expansion of utility line connections would be less than significant.

***b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?***

Less-Than-Significant Impact. The California Urban Water Management Planning Act (California Water Code Sections 10610–10656) requires water utilities providing water for municipal uses to more than 3,000 customers or supplying more than 3,000 acre-feet per year to prepare a UWMP every 5 years. The proposed project would be served by WMWD, which last updated its UWMP in 2020. The vast majority of the water for WMWD's service area is part of the State Water Project, along with wholesale supplies purchased from the Southern California Metropolitan Water District. Additionally, the Arlington Desalter provides high-quality water sources to the City of Norco. According to the 2020 UWMP, WMWD has determined that water resources are sufficient to handle all projected growth within their service area, including during multiple dry years (WMWD 2021).

A Water Supply Assessment for the proposed project is not required pursuant to California Water Code Section 10910, because the project as proposed does not meet the criteria under California Water Code Section 10912, nor does it meet the definition of a "water demand project" pursuant to CEQA Guidelines Section 15155(a). Based on the site engineering and design plans, the District would construct all necessary infrastructure extensions of existing lines to the site to meet the water and sewer demands of the proposed project. The District would also install all necessary fire service with backflow device lines and fire hydrants to ensure that a reliable and appropriate water source exists on site for firefighting purposes. In addition, the District would pay all applicable connection fees and monthly usage charges to the City for the provision of water to the project site.

Due to the limited water requirements for the proposed project, sufficient capacity for both domestic water and sewer is reasonably expected. Moreover, based on WMWD's 2020 UWMP, the City's projected water supplies are expected to be sufficient to meet the additional water demand resulting from the proposed project, in addition to existing and planned future uses. Impacts would be less than significant.

*c)* ***Would the project result in a determination by the wastewater treatment provider which 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?***

Less-Than-Significant Impact. As discussed previously in Section 3.19(a), the proposed project would only minimally increase Norco College's volume of wastewater treated by the wastewater treatment provider (WMWD). The proposed project would not result in the determination by WMWD that it does not have sufficient capacity to serve the proposed project's anticipated wastewater demand. As previously discussed, WMWD maintains sufficient wastewater infrastructure and service capacity, and the proposed project will produce minimal wastewater. Impacts would be less than significant.

*d)* ***Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

Less-Than-Significant Impact. The Riverside County Waste Management Department manages Riverside County's solid waste system through the provision of facilities and programs that meet or exceed all applicable federal, state, and local land use regulations. The Riverside County Waste Management Department manages five Riverside County Sanitary Landfills: Badlands, Blythe, Desert Center, Lamb Canyon, and Oasis (RCDWR 2022). Each of these landfills has sufficient capacity to accommodate the project's minimal solid waste disposal needs and is permitted to receive non-hazardous municipal solid waste (CalRecycle 2022).

Any number of local landfills typically utilized by the City of Norco has sufficient capacity to accommodate this volume of non-hazardous waste. Only minimal waste is anticipated during operation of the proposed project, and the College can easily handle it as part of its day-to-day waste stream. Any impacts related to solid waste would be less than significant.

*e)* ***Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

Less-Than-Significant Impact. The proposed uses for the project site are consistent with surrounding educational uses of the site. The proposed project would not violate any adopted federal, state, or local policies and regulations related to solid waste. Compliance with these regulations would result in a less-than-significant impact.

## 3.20 Wildfire

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XX. WILDFIRE** – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | | | | |
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☒ | ☐ |

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | ☐ | ☐ | ☒ | ☐ |
| c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | ☐ | ☐ | ☒ | ☐ |
| d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | ☐ | ☐ | ☒ | ☐ |

***a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?***

Less-Than-Significant Impact. Third Street is the only roadway that provides ingress and egress for the Norco College campus; therefore, Third Street is a de facto emergency access route for Norco College. However, construction staging would occur either within Parking Lot D or on the project site. Construction would not require full or partial closure of Third Street. Construction of the proposed project could temporarily obstruct emergency access to the western portion of the College campus. Additionally, the proposed project would not interfere with the District's ability to implement its Emergency Operations Plan.

Once constructed, operation of the proposed project would not result in any actions that would significantly impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts associated with adopted emergency response plans or emergency evacuation plans would be less than significant.

***b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***

Less-Than-Significant Impact. According to maps prepared by CAL FIRE, the project site is located within a Very High Severity Fire Hazard Zone (CAL FIRE 2022). The proposed project site is located in an area where urban development currently exists, and it is not susceptible to the threat of fire from wildlands. While there is a substantial amount of open space around Lake Norconian, to the north of the Norco College campus, this area does not represent a significant source of wildland fire risk, and the proposed project itself is not located within a fire hazard area.

As such, in the unlikely event of a wildfire in the areas proximate to the project site, all occupants at the project site and College campus would evacuate the area, as directed by local fire officials. Additionally, the proposed project would be located within the College's boundaries, on a flat project site, adjacent to existing development. As such, the proposed project would not exacerbate wildfire risks due to slope, prevailing winds, and other factors. Therefore, impacts would be less than significant.

***c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?***

Less-Than-Significant Impact. The proposed project would include the construction of the proposed CHP+K Building to support Norco College's existing physical education program. The proposed project would not involve installation or maintenance of infrastructure that would exacerbate fire risk. Although the proposed project would involve installation of utilities within the project site, these utilities would be located underground and would not exacerbate fire risk. Therefore, impacts associated with installation or maintenance of associated infrastructure resulting in exacerbated fire risk would be less than significant.

***d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?***

Less-Than-Significant Impact. The project site is relatively flat. There is no evidence of slope instabilities at the project site, and there are no significant slopes located on or near the project site that may be considered susceptible to seismically induced landslides. During the grading phase of the proposed project, the project site would be leveled. As such, upon completion of construction, the project site would not be considered susceptible to landslides, post-fire instability, or drainage changes. As such, impacts would be less than significant.

## 3.21 Mandatory Findings of Significance

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| **XXI. MANDATORY FINDINGS OF SIGNIFICANCE** | | | | |
| a) Does the project have the potential to substantially 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, substantially 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? | ☐ | ☒ | ☐ | ☐ |

| | Potentially Significant Impact | Less Than Significant Impact With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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.) | ☐ | ☒ | ☐ | ☐ |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☒ | ☐ | ☐ |

*a)* ***Does the project have the potential to substantially 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, substantially 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?***

Less-Than-Significant Impact with Mitigation Incorporated. As discussed in Section 3.4, through compliance with MM-BIO-1 through MM-BIO-3, project impacts to biological resources would be less than significant. As discussed in Section 3.5, through compliance with MM-CUL-1, MM-CUL-2, and MM-TCR-1, project impacts to cultural resources and tribal cultural resources would be less than significant. As discussed in Section 3.9, through compliance with MM-HAZ-1, project impacts to hazards and hazardous materials would be less than significant. Therefore, with mitigation incorporated, the project would not 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.

*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.)***

Less-Than-Significant Impact with Mitigation Incorporated. When evaluating cumulative impacts, it is important to remain consistent with Section 15064(h) of the CEQA Guidelines, which states that an EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Alternatively, a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable through mitigation measures set forth in an MND or if the project will comply with the requirements in a previously approved plan or mitigation program (including, but not limited to, water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, plans or regulations for the reduction of greenhouse gas emissions) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.

The project would potentially result in impacts to biological resources, cultural resources, hazards and hazardous materials, and TCRs that could be potentially significant without the incorporation of mitigation. Thus, when coupled with biological resources, cultural resources, hazards and hazardous materials, and TCRs, impacts related to the implementation of other related projects throughout the broader project area, the project would potentially result in cumulative-level impacts if these significant impacts are left unmitigated.

However, with the incorporation of mitigation identified herein, the project's impacts would be reduced to less-than-significant levels and would not considerably contribute to cumulative impacts in the greater project region. In addition, other related projects would presumably be bound by their applicable lead agency to (1) comply with the all applicable federal, state, and local regulatory requirements; and (2) incorporate all feasible mitigation measures, consistent with CEQA, to further ensure that their potentially cumulative impacts would be reduced to less-than-significant levels.

Although cumulative impacts are always possible, the project, by incorporating all mitigation measures outlined herein, would reduce its contribution to any such cumulative impacts to less than cumulatively considerable; therefore, the project would result in individually limited, but not cumulatively considerable, impacts.

*c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Less-Than-Significant Impact with Mitigation Incorporated. As evaluated throughout this document, with incorporation of mitigation, environmental impacts associated with the project would be less than significant. Thus, the project would not directly or indirectly cause substantial adverse effects on human beings. Impacts would be less than significant with incorporation of mitigation.

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# 4.2 List of Preparers

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Sarah Halterman, Air Quality Specialist
Sabita Tewani, Transportation Planner
Michael Greene, Environmental Specialist/Acoustician
Susie Smith, Geologist
Audrey Herschberger, PE, Environmental Engineer

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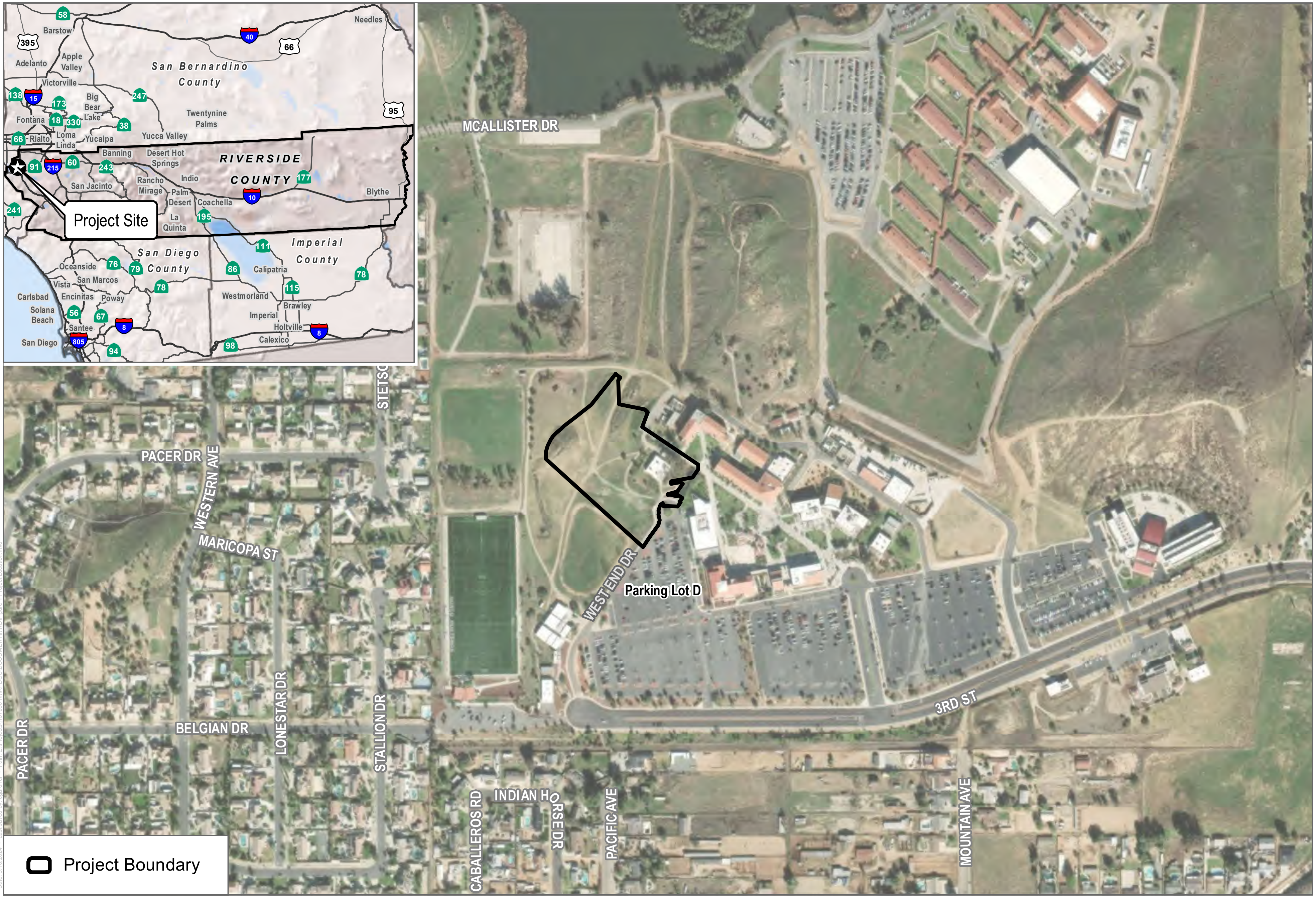

Date: 9/10/2024 - Last saved by: cgardner - Path: Z:\Projects\j1370501\MAPDOC\DOCUMENT\MND\Figure 1 Project Location.mxd

SOURCE: ESRI World Imagery Basemap 2019

DUDEK

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0 255 510 Feet

**FIGURE 1**

Project Location

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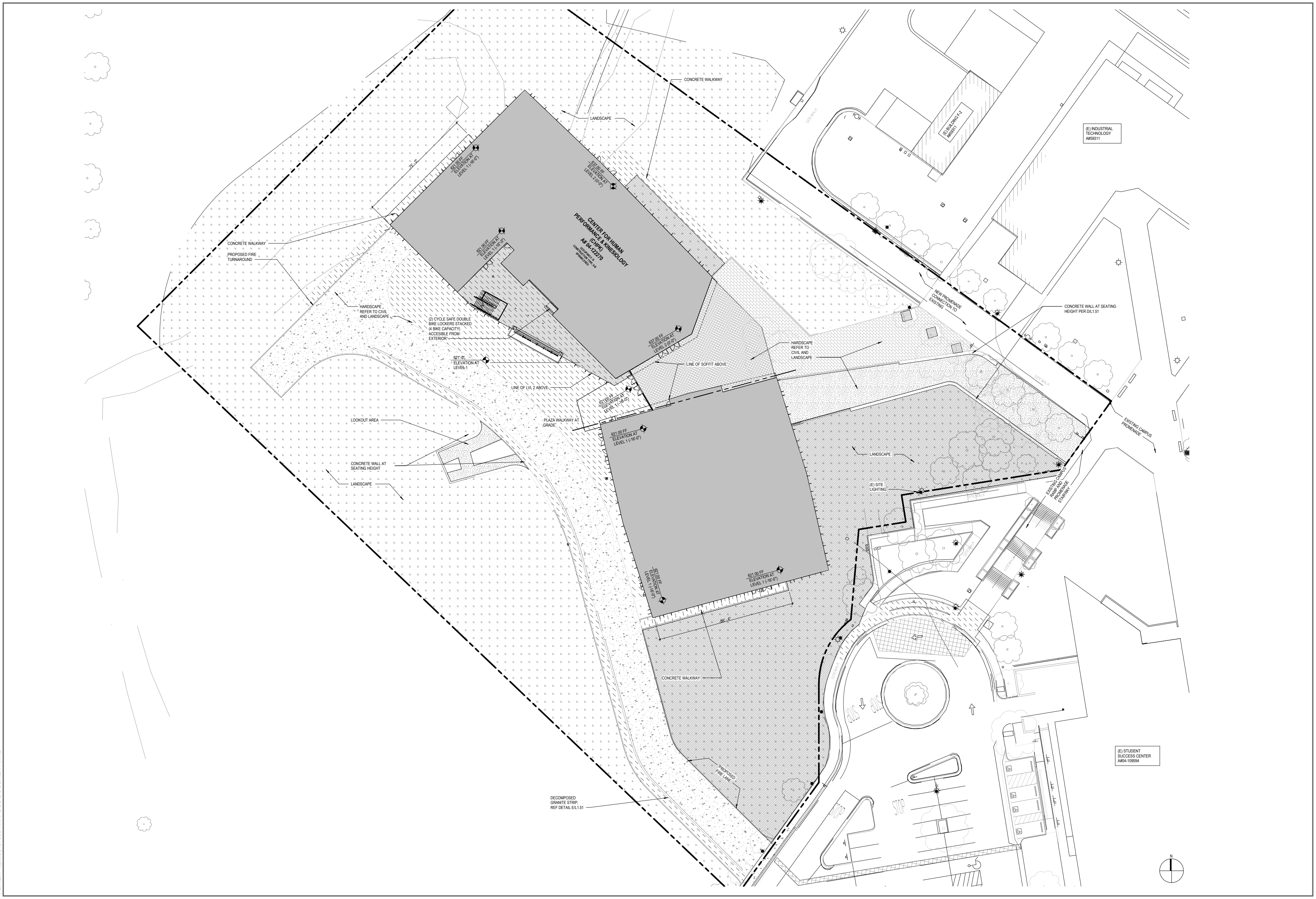

SOURCE: DLR Group, 2024

DUDEK

**FIGURE 2**

Project Site Plan

Norco College Center for Human Performance and Kinesiology Building MND

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Date: 9/10/2024 - Last saved by: cgardner - Path: Z:\Projects\j1370501\MAPDOC\DOCUMENT\MND\Figure 4 Noise Measurement Locations.mxd

SOURCE: ESRI World Imagery Basemap 2019

DUDEK

**FIGURE 3**

Noise Measurement Locations

Norco College Center for Human Performance and Kinesiology Building MND

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# Appendix A

## Air Quality and Greenhouse Gas Emissions
## CalEEMod Output Files

# Table of Contents

# Norco College Detailed Report

## Table of Contents

5. Activity Data

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Norco College |
| Construction Start Date | 1/2/2025 |
| Operational Year | 2026 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.60 |
| Precipitation (days) | 19.2 |
| Location | 33.91806119466557, -117.57100876147516 |
| County | Riverside-South Coast |
| City | Norco |
| Air District | South Coast AQMD |
| Air Basin | South Coast |
| TAZ | 5443 |
| EDFZ | 11 |
| Electric Utility | Southern California Edison |
| Gas Utility | Southern California Gas |
| App Version | 2022.1.1.28 |

## 1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---|---|---|---|---|---|---|---|---|
| University/College (4yr) | 1,000 | Student | 0.55 | 56,284 | 24,340 | 24,340 | — | — |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Other Non-Asphalt Surfaces | 35.0 | 1000sqft | 0.80 | 0.00 | 0.00 | — | — | — |
| Other Asphalt Surfaces | 1.20 | 1000sqft | 0.03 | 0.00 | — | — | — | — |

## 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

# 2. Emissions Summary

## 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.08 | 8.59 | 11.4 | 0.02 | 0.30 | 0.39 | 0.69 | 0.28 | 0.10 | 0.37 | 2,337 | 0.09 | 0.07 | 2.09 | 2,362 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 53.4 | 23.7 | 17.4 | 0.08 | 0.80 | 5.10 | 5.90 | 0.75 | 1.98 | 2.73 | 10,895 | 0.26 | 1.33 | 0.47 | 11,298 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 2.17 | 6.03 | 7.45 | 0.01 | 0.21 | 0.33 | 0.55 | 0.20 | 0.09 | 0.29 | 1,627 | 0.06 | 0.06 | 0.66 | 1,648 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.40 | 1.10 | 1.36 | < 0.005 | 0.04 | 0.06 | 0.10 | 0.04 | 0.02 | 0.05 | 269 | 0.01 | 0.01 | 0.11 | 273 |

## 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 1.08 | 8.59 | 11.4 | 0.02 | 0.30 | 0.39 | 0.69 | 0.28 | 0.10 | 0.37 | 2,337 | 0.09 | 0.07 | 2.09 | 2,362 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 53.4 | 23.7 | 17.4 | 0.08 | 0.80 | 5.10 | 5.90 | 0.75 | 1.98 | 2.73 | 10,895 | 0.26 | 1.33 | 0.47 | 11,298 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 2.17 | 6.03 | 7.45 | 0.01 | 0.21 | 0.33 | 0.55 | 0.20 | 0.09 | 0.29 | 1,627 | 0.06 | 0.06 | 0.66 | 1,648 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.40 | 1.10 | 1.36 | < 0.005 | 0.04 | 0.06 | 0.10 | 0.04 | 0.02 | 0.05 | 269 | 0.01 | 0.01 | 0.11 | 273 |

## 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.49 | 5.16 | 42.9 | 0.10 | 0.14 | 8.59 | 8.74 | 0.14 | 2.18 | 2.32 | 11,884 | 10.8 | 0.46 | 35.3 | 12,328 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 5.78 | 5.45 | 34.1 | 0.10 | 0.14 | 8.59 | 8.73 | 0.13 | 2.18 | 2.31 | 11,262 | 10.8 | 0.48 | 1.13 | 11,677 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 5.40 | 4.88 | 32.1 | 0.09 | 0.13 | 7.28 | 7.41 | 0.13 | 1.85 | 1.97 | 9,989 | 10.8 | 0.42 | 13.2 | 10,396 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.99 | 0.89 | 5.85 | 0.02 | 0.02 | 1.33 | 1.35 | 0.02 | 0.34 | 0.36 | 1,654 | 1.78 | 0.07 | 2.18 | 1,721 |

## 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Sector | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.69 | 4.29 | 39.7 | 0.10 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 10,102 | 0.40 | 0.45 | 35.1 | 10,280 |
| Area | 1.75 | 0.02 | 2.45 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 10.1 | < 0.005 | < 0.005 | — | 10.1 |
| Energy | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,651 | 0.15 | 0.01 | — | 1,658 |
| Water | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Waste | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Total | 6.49 | 5.16 | 42.9 | 0.10 | 0.14 | 8.59 | 8.74 | 0.14 | 2.18 | 2.32 | 11,884 | 10.8 | 0.46 | 35.3 | 12,328 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.38 | 4.59 | 33.4 | 0.09 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 9,490 | 0.41 | 0.46 | 0.91 | 9,638 |
| Area | 1.35 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Energy | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,651 | 0.15 | 0.01 | — | 1,658 |
| Water | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Waste | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Total | 5.78 | 5.45 | 34.1 | 0.10 | 0.14 | 8.59 | 8.73 | 0.13 | 2.18 | 2.31 | 11,262 | 10.8 | 0.48 | 1.13 | 11,677 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 3.72 | 4.01 | 29.7 | 0.08 | 0.06 | 7.28 | 7.34 | 0.06 | 1.85 | 1.91 | 8,210 | 0.36 | 0.40 | 13.0 | 8,351 |
| Area | 1.63 | 0.01 | 1.68 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 6.89 | < 0.005 | < 0.005 | — | 6.92 |
| Energy | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,651 | 0.15 | 0.01 | — | 1,658 |
| Water | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Waste | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Total | 5.40 | 4.88 | 32.1 | 0.09 | 0.13 | 7.28 | 7.41 | 0.13 | 1.85 | 1.97 | 9,989 | 10.8 | 0.42 | 13.2 | 10,396 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.68 | 0.73 | 5.42 | 0.01 | 0.01 | 1.33 | 1.34 | 0.01 | 0.34 | 0.35 | 1,359 | 0.06 | 0.07 | 2.15 | 1,383 |
| Area | 0.30 | < 0.005 | 0.31 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 1.14 | < 0.005 | < 0.005 | — | 1.15 |
| Energy | 0.01 | 0.16 | 0.13 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 273 | 0.02 | < 0.005 | — | 274 |
| Water | — | — | — | — | — | — | — | — | — | — | 3.68 | 0.07 | < 0.005 | — | 5.93 |
| Waste | — | — | — | — | — | — | — | — | — | — | 16.3 | 1.63 | 0.00 | — | 57.0 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.04 | 0.04 |
| Total | 0.99 | 0.89 | 5.85 | 0.02 | 0.02 | 1.33 | 1.35 | 0.02 | 0.34 | 0.36 | 1,654 | 1.78 | 0.07 | 2.18 | 1,721 |

# 3. Construction Emissions Details

## 3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.47 | 13.9 | 15.1 | 0.02 | 0.57 | — | 0.57 | 0.52 | — | 0.52 | 2,494 | 0.10 | 0.02 | — | 2,502 |
| Demolition | — | — | — | — | — | 0.39 | 0.39 | — | 0.06 | 0.06 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.08 | 0.76 | 0.83 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | 137 | 0.01 | < 0.005 | — | 137 |
| Demolition | — | — | — | — | — | 0.02 | 0.02 | — | < 0.005 | < 0.005 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.14 | 0.15 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 22.6 | < 0.005 | < 0.005 | — | 22.7 |
| Demolition | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.07 | 0.79 | 0.00 | 0.00 | 0.18 | 0.18 | 0.00 | 0.04 | 0.04 | 175 | 0.01 | 0.01 | 0.02 | 177 |
| Vendor | < 0.005 | 0.14 | 0.04 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | 122 | < 0.005 | 0.02 | 0.01 | 128 |
| Hauling | 0.01 | 0.64 | 0.15 | < 0.005 | 0.01 | 0.14 | 0.16 | 0.01 | 0.04 | 0.05 | 552 | 0.01 | 0.09 | 0.03 | 578 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | 0.05 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | < 0.005 | < 0.005 | 9.71 | < 0.005 | < 0.005 | 0.02 | 9.84 |
| Vendor | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 6.71 | < 0.005 | < 0.005 | 0.01 | 7.02 |
| Hauling | < 0.005 | 0.04 | 0.01 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | 30.2 | < 0.005 | < 0.005 | 0.03 | 31.7 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | 1.61 | < 0.005 | < 0.005 | < 0.005 | 1.63 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 1.11 | < 0.005 | < 0.005 | < 0.005 | 1.16 |
| Hauling | < 0.005 | 0.01 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 5.00 | < 0.005 | < 0.005 | < 0.005 | 5.24 |

## 3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.31 | 12.1 | 12.1 | 0.02 | 0.56 | — | 0.56 | 0.52 | — | 0.52 | 2,065 | 0.08 | 0.02 | — | 2,072 |
| Dust From Material Movement | — | — | — | — | — | 2.44 | 2.44 | — | 1.17 | 1.17 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.07 | 0.07 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 11.3 | < 0.005 | < 0.005 | — | 11.4 |
| Dust From Material Movement | — | — | — | — | — | 0.01 | 0.01 | — | 0.01 | 0.01 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 1.87 | < 0.005 | < 0.005 | — | 1.88 |
| Dust From Material Movement | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.04 | 0.44 | 0.00 | 0.00 | 0.10 | 0.10 | 0.00 | 0.02 | 0.02 | 97.2 | < 0.005 | < 0.005 | 0.01 | 98.4 |
| Vendor | < 0.005 | 0.14 | 0.04 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | 122 | < 0.005 | 0.02 | 0.01 | 128 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | 0.54 | < 0.005 | < 0.005 | < 0.005 | 0.55 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.67 | < 0.005 | < 0.005 | < 0.005 | 0.70 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | 0.09 | < 0.005 | < 0.005 | < 0.005 | 0.09 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.11 | < 0.005 | < 0.005 | < 0.005 | 0.12 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.5. Grading (2025) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.51 | 14.1 | 14.5 | 0.02 | 0.64 | — | 0.64 | 0.59 | — | 0.59 | 2,455 | 0.10 | 0.02 | — | 2,463 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | 2.78 | 2.78 | — | 1.34 | 1.34 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.15 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 26.9 | < 0.005 | < 0.005 | — | 27.0 |
| Dust From Material Movement | — | — | — | — | — | 0.03 | 0.03 | — | 0.01 | 0.01 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | 0.03 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 4.45 | < 0.005 | < 0.005 | — | 4.47 |
| Dust From Material Movement | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.04 | 0.05 | 0.58 | 0.00 | 0.00 | 0.13 | 0.13 | 0.00 | 0.03 | 0.03 | 130 | 0.01 | < 0.005 | 0.01 | 131 |
| Vendor | < 0.005 | 0.14 | 0.04 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | 122 | < 0.005 | 0.02 | 0.01 | 128 |
| Hauling | 0.12 | 9.48 | 2.25 | 0.05 | 0.16 | 2.15 | 2.31 | 0.16 | 0.60 | 0.76 | 8,188 | 0.15 | 1.29 | 0.45 | 8,576 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | 1.44 | < 0.005 | < 0.005 | < 0.005 | 1.46 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 1.34 | < 0.005 | < 0.005 | < 0.005 | 1.40 |
| Hauling | < 0.005 | 0.11 | 0.02 | < 0.005 | < 0.005 | 0.02 | 0.03 | < 0.005 | 0.01 | 0.01 | 89.7 | < 0.005 | 0.01 | 0.08 | 94.0 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | 0.24 | < 0.005 | < 0.005 | < 0.005 | 0.24 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.22 | < 0.005 | < 0.005 | < 0.005 | 0.23 |
| Hauling | < 0.005 | 0.02 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 14.9 | < 0.005 | < 0.005 | 0.01 | 15.6 |

## 3.7. Building Construction (2025) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.97 | 8.15 | 9.51 | 0.02 | 0.30 | — | 0.30 | 0.27 | — | 0.27 | 1,697 | 0.07 | 0.01 | — | 1,703 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.97 | 8.15 | 9.51 | 0.02 | 0.30 | — | 0.30 | 0.27 | — | 0.27 | 1,697 | 0.07 | 0.01 | — | 1,703 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.53 | 4.47 | 5.21 | 0.01 | 0.16 | — | 0.16 | 0.15 | — | 0.15 | 930 | 0.04 | 0.01 | — | 933 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.10 | 0.82 | 0.95 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | 154 | 0.01 | < 0.005 | — | 155 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.10 | 1.83 | 0.00 | 0.00 | 0.31 | 0.31 | 0.00 | 0.07 | 0.07 | 333 | 0.01 | 0.01 | 1.22 | 338 |
| Vendor | 0.01 | 0.34 | 0.10 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.02 | 0.03 | 306 | 0.01 | 0.05 | 0.87 | 321 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.10 | 0.11 | 1.38 | 0.00 | 0.00 | 0.31 | 0.31 | 0.00 | 0.07 | 0.07 | 306 | 0.01 | 0.01 | 0.03 | 310 |
| Vendor | 0.01 | 0.35 | 0.11 | < 0.005 | < 0.005 | 0.09 | 0.09 | < 0.005 | 0.02 | 0.03 | 306 | 0.01 | 0.05 | 0.02 | 320 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.07 | 0.80 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.04 | 0.04 | 170 | 0.01 | 0.01 | 0.29 | 172 |
| Vendor | < 0.005 | 0.19 | 0.06 | < 0.005 | < 0.005 | 0.05 | 0.05 | < 0.005 | 0.01 | 0.02 | 168 | < 0.005 | 0.03 | 0.21 | 176 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.15 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.01 | 0.01 | 28.1 | < 0.005 | < 0.005 | 0.05 | 28.5 |
| Vendor | < 0.005 | 0.04 | 0.01 | < 0.005 | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | < 0.005 | 27.8 | < 0.005 | < 0.005 | 0.03 | 29.1 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.9. Paving (2025) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.49 | 4.63 | 6.50 | 0.01 | 0.20 | — | 0.20 | 0.19 | — | 0.19 | 992 | 0.04 | 0.01 | — | 995 |
| Paving | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.13 | 0.18 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 27.2 | < 0.005 | < 0.005 | — | 27.3 |
| Paving | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | 0.02 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 4.50 | < 0.005 | < 0.005 | — | 4.51 |
| Paving | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.06 | 0.07 | 0.79 | 0.00 | 0.00 | 0.18 | 0.18 | 0.00 | 0.04 | 0.04 | 175 | 0.01 | 0.01 | 0.02 | 177 |
| Vendor | < 0.005 | 0.14 | 0.04 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | 122 | < 0.005 | 0.02 | 0.01 | 128 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | 0.02 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | 4.85 | < 0.005 | < 0.005 | 0.01 | 4.92 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 3.35 | < 0.005 | < 0.005 | < 0.005 | 3.51 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | 0.80 | < 0.005 | < 0.005 | < 0.005 | 0.81 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.56 | < 0.005 | < 0.005 | < 0.005 | 0.58 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.11. Architectural Coating (2025) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.88 | 1.14 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | 53.2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | 0.02 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 3.66 | < 0.005 | < 0.005 | — | 3.67 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural | 1.46 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.61 | < 0.005 | < 0.005 | — | 0.61 |
| Architectural Coatings | 0.27 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.02 | 0.03 | 0.33 | 0.00 | 0.00 | 0.07 | 0.07 | 0.00 | 0.02 | 0.02 | 74.2 | < 0.005 | < 0.005 | 0.01 | 75.2 |
| Vendor | < 0.005 | 0.14 | 0.04 | < 0.005 | < 0.005 | 0.03 | 0.04 | < 0.005 | 0.01 | 0.01 | 122 | < 0.005 | 0.02 | 0.01 | 128 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | 0.01 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | 2.06 | < 0.005 | < 0.005 | < 0.005 | 2.09 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 3.35 | < 0.005 | < 0.005 | < 0.005 | 3.51 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | < 0.005 | < 0.005 | < 0.005 | 0.00 | 0.00 | < 0.005 | < 0.005 | 0.00 | < 0.005 | < 0.005 | 0.34 | < 0.005 | < 0.005 | < 0.005 | 0.35 |
| Vendor | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | 0.56 | < 0.005 | < 0.005 | < 0.005 | 0.58 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# 4. Operations Emissions Details

## 4.1. Mobile Emissions by Land Use

### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | 4.69 | 4.29 | 39.7 | 0.10 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 10,102 | 0.40 | 0.45 | 35.1 | 10,280 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 4.69 | 4.29 | 39.7 | 0.10 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 10,102 | 0.40 | 0.45 | 35.1 | 10,280 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | 4.38 | 4.59 | 33.4 | 0.09 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 9,490 | 0.41 | 0.46 | 0.91 | 9,638 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 4.38 | 4.59 | 33.4 | 0.09 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 9,490 | 0.41 | 0.46 | 0.91 | 9,638 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| University/ (4yr) | 0.68 | 0.73 | 5.42 | 0.01 | 0.01 | 1.33 | 1.34 | 0.01 | 0.34 | 0.35 | 1,359 | 0.06 | 0.07 | 2.15 | 1,383 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 0.68 | 0.73 | 5.42 | 0.01 | 0.01 | 1.33 | 1.34 | 0.01 | 0.34 | 0.35 | 1,359 | 0.06 | 0.07 | 2.15 | 1,383 |

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 635 | 0.06 | 0.01 | — | 639 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 635 | 0.06 | 0.01 | — | 639 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 635 | 0.06 | 0.01 | — | 639 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 635 | 0.06 | 0.01 | — | 639 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 105 | 0.01 | < 0.005 | — | 106 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 105 | 0.01 | < 0.005 | — | 106 |

## 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,016 | 0.09 | < 0.005 | — | 1,019 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,016 | 0.09 | < 0.005 | — | 1,019 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,016 | 0.09 | < 0.005 | — | 1,019 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,016 | 0.09 | < 0.005 | — | 1,019 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | 0.01 | 0.16 | 0.13 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 168 | 0.01 | < 0.005 | — | 169 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.01 | 0.16 | 0.13 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 168 | 0.01 | < 0.005 | — | 169 |

## 4.3. Area Emissions by Source

### 4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Source | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 1.21 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectu Coatings | 0.15 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.40 | 0.02 | 2.45 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 10.1 | < 0.005 | < 0.005 | — | 10.1 |
| Total | 1.75 | 0.02 | 2.45 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 10.1 | < 0.005 | < 0.005 | — | 10.1 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 1.21 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.15 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 1.35 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 0.22 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.03 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.05 | < 0.005 | 0.31 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 1.14 | < 0.005 | < 0.005 | — | 1.15 |
| Total | 0.30 | < 0.005 | 0.31 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 1.14 | < 0.005 | < 0.005 | — | 1.15 |

## 4.4. Water Emissions by Land Use

### 4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 3.68 | 0.07 | < 0.005 | — | 5.93 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 3.68 | 0.07 | < 0.005 | — | 5.93 |

## 4.5. Waste Emissions by Land Use

### 4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 16.3 | 1.63 | 0.00 | — | 57.0 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 16.3 | 1.63 | 0.00 | — | 57.0 |

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.04 | 0.04 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.04 | 0.04 |

## 4.7. Offroad Emissions By Equipment Type

### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.8. Stationary Emissions By Equipment Type

### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.9. User Defined Emissions By Equipment Type

### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10. Soil Carbon Accumulation By Vegetation Type

### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetation | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5. Activity Data

## 5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| Demolition | Demolition | 1/2/2025 | 1/30/2025 | 5.00 | 20.0 | — |
| Site Preparation | Site Preparation | 1/31/2025 | 2/2/2025 | 5.00 | 2.00 | — |
| Grading | Grading | 2/3/2025 | 2/8/2025 | 5.00 | 4.00 | — |
| Building Construction | Building Construction | 2/9/2025 | 11/16/2025 | 5.00 | 200 | — |
| Paving | Paving | 11/17/2025 | 12/1/2025 | 5.00 | 10.0 | — |
| Architectural Coating | Architectural Coating | 12/2/2025 | 12/16/2025 | 5.00 | 10.0 | — |

## 5.2. Off-Road Equipment

### 5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Demolition | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 8.00 | 84.0 | 0.37 |
| Demolition | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Demolition | Concrete/Industrial Saws | Diesel | Average | 1.00 | 8.00 | 33.0 | 0.73 |
| Site Preparation | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Site Preparation | Rubber Tired Dozers | Diesel | Average | 1.00 | 7.00 | 367 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 7.00 | 84.0 | 0.37 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 6.00 | 367 | 0.29 |
| Building Construction | Forklifts | Diesel | Average | 1.00 | 6.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Electric | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Average | 1.00 | 6.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Average | 3.00 | 8.00 | 46.0 | 0.45 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Paving | Tractors/Loaders/Back | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Paving | Pavers | Diesel | Average | 1.00 | 6.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Average | 1.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Average | 1.00 | 7.00 | 36.0 | 0.38 |
| Paving | Cement and Mortar Mixers | Diesel | Average | 1.00 | 6.00 | 10.0 | 0.56 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.00 | 6.00 | 37.0 | 0.48 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Demolition | — | — | — | — |
| Demolition | Worker | 13.5 | 18.5 | LDA,LDT1,LDT2 |
| Demolition | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Demolition | Hauling | 8.00 | 20.0 | HHDT |
| Demolition | Onsite truck | — | — | HHDT |
| Site Preparation | — | — | — | — |
| Site Preparation | Worker | 7.50 | 18.5 | LDA,LDT1,LDT2 |
| Site Preparation | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 20.0 | HHDT |
| Site Preparation | Onsite truck | — | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 10.0 | 18.5 | LDA,LDT1,LDT2 |
| Grading | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Grading | Hauling | 119 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 23.6 | 18.5 | LDA,LDT1,LDT2 |

| | | | | |
|---|---|---|---|---|
| Building Construction | Vendor | 10.0 | 10.2 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 13.5 | 18.5 | LDA,LDT1,LDT2 |
| Paving | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 5.73 | 18.5 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | 4.00 | 10.2 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|---|
| Architectural Coating | 0.00 | 0.00 | 84,426 | 28,142 | 2,172 |

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (Ton of Debris) | Acres Paved (acres) |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Demolition | 0.00 | 0.00 | 0.00 | 558 | — |
| Site Preparation | — | — | 1.88 | 0.00 | — |
| Grading | 3,765 | — | 4.00 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.83 |

### 5.6.2. Construction Earthmoving Control Strategies

| Control Strategies Applied | Frequency (per day) | PM10 Reduction | PM2.5 Reduction |
|---|---|---|---|
| Water Exposed Area | 2 | 61% | 61% |
| Water Demolished Area | 2 | 36% | 36% |

## 5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| University/College (4yr) | 0.00 | 0% |
| Other Non-Asphalt Surfaces | 0.80 | 0% |
| Other Asphalt Surfaces | 0.03 | 100% |

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2025 | 61.8 | 349 | 0.03 | < 0.005 |

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| University/College (4yr) | 1,150 | 1,150 | 0.00 | 359,786 | 12,130 | 12,130 | 0.00 | 3,795,095 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 5.10. Operational Area Sources

### 5.10.1. Hearths

### 5.10.1.1. Unmitigated

### 5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|
| 0 | 0.00 | 84,426 | 28,142 | 2,172 |

### 5.10.3. Landscape Equipment

| Season | Unit | Value |
|---|---|---|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 250 |

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---|---|---|---|---|---|
| University/College (4yr) | 669,594 | 346 | 0.0330 | 0.0040 | 3,171,232 |
| Other Non-Asphalt Surfaces | 0.00 | 346 | 0.0330 | 0.0040 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 346 | 0.0330 | 0.0040 | 0.00 |

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| University/College (4yr) | 2,141,100 | 857,618 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| University/College (4yr) | 183 | — |
| Other Non-Asphalt Surfaces | 0.00 | — |
| Other Asphalt Surfaces | 0.00 | — |

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---|---|---|---|---|---|---|---|
| University/College (4yr) | Household refrigerators and/or freezers | R-134a | 1,430 | 0.02 | 0.60 | 0.00 | 1.00 |
| University/College (4yr) | Other commercial A/C and heat pumps | R-410A | 2,088 | < 0.005 | 4.00 | 4.00 | 18.0 |
| University/College (4yr) | Stand-alone retail refrigerators and freezers | R-134a | 1,430 | < 0.005 | 1.00 | 0.00 | 1.00 |
| University/College (4yr) | Walk-in refrigerators and freezers | R-404A | 3,922 | < 0.005 | 7.50 | 7.50 | 20.0 |

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

| Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|

## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

| Equipment Type | Fuel Type | Number per Day | Hours per Day | Hours per Year | Horsepower | Load Factor |
|---|---|---|---|---|---|---|

### 5.16.2. Process Boilers

| Equipment Type | Fuel Type | Number | Boiler Rating (MMBtu/hr) | Daily Heat Input (MMBtu/day) | Annual Heat Input (MMBtu/yr) |
|---|---|---|---|---|---|

## 5.17. User Defined

| Equipment Type | Fuel Type |
|---|---|

## 5.18. Vegetation

### 5.18.1. Land Use Change

### 5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

### 5.18.1. Biomass Cover Type

### 5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

# 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 16.3 | annual days of extreme heat |
| Extreme Precipitation | 3.50 | annual days with precipitation above 20 mm |
| Sea Level Rise | — | meters of inundation depth |
| Wildfire | 17.3 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | 2 | 0 | 0 | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |

| | | | | |
|---|---|---|---|---|
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | 0 | 0 | 0 | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | 2 | 1 | 1 | 3 |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | 1 | 1 | 1 | 2 |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 80.0 |
| AQ-PM | 91.8 |
| AQ-DPM | 25.3 |
| Drinking Water | 98.1 |
| Lead Risk Housing | 3.40 |
| Pesticides | 0.00 |
| Toxic Releases | 66.2 |
| Traffic | 24.1 |
| Effect Indicators | — |
| CleanUp Sites | 83.9 |
| Groundwater | 65.5 |
| Haz Waste Facilities/Generators | 26.7 |
| Impaired Water Bodies | 43.8 |
| Solid Waste | 0.00 |
| Sensitive Population | — |
| Asthma | 23.2 |
| Cardio-vascular | 75.2 |
| Low Birth Weights | — |
| Socioeconomic Factor Indicators | — |
| Education | 83.8 |
| Housing | — |
| Linguistic | 67.2 |
| Poverty | 26.7 |
| Unemployment | 3.58 |

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Economic | — |
| Above Poverty | — |
| Employed | — |
| Median HI | — |
| Education | — |
| Bachelor's or higher | — |
| High school enrollment | — |
| Preschool enrollment | — |
| Transportation | — |
| Auto Access | — |
| Active commuting | — |
| Social | — |
| 2-parent households | — |
| Voting | — |
| Neighborhood | — |
| Alcohol availability | — |
| Park access | — |
| Retail density | — |
| Supermarket access | — |
| Tree canopy | — |
| Housing | — |
| Homeownership | — |
| Housing habitability | — |
| Low-inc homeowner severe housing cost burden | — |
| Low-inc renter severe housing cost burden | — |

| | |
|---|---|
| Uncrowded housing | — |
| Health Outcomes | — |
| Insured adults | — |
| Arthritis | 0.0 |
| Asthma ER Admissions | 64.1 |
| High Blood Pressure | 0.0 |
| Cancer (excluding skin) | 0.0 |
| Asthma | 0.0 |
| Coronary Heart Disease | 0.0 |
| Chronic Obstructive Pulmonary Disease | 0.0 |
| Diagnosed Diabetes | 0.0 |
| Life Expectancy at Birth | 0.0 |
| Cognitively Disabled | 5.8 |
| Physically Disabled | 16.6 |
| Heart Attack ER Admissions | 14.7 |
| Mental Health Not Good | 0.0 |
| Chronic Kidney Disease | 0.0 |
| Obesity | 0.0 |
| Pedestrian Injuries | 0.0 |
| Physical Health Not Good | 0.0 |
| Stroke | 0.0 |
| Health Risk Behaviors | — |
| Binge Drinking | 0.0 |
| Current Smoker | 0.0 |
| No Leisure Time for Physical Activity | 0.0 |
| Climate Change Exposures | — |
| Wildfire Risk | 0.0 |
| SLR Inundation Area | 0.0 |

| | |
|---|---|
| Children | 97.9 |
| Elderly | 97.6 |
| English Speaking | 0.0 |
| Foreign-born | 0.0 |
| Outdoor Workers | 54.8 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 86.9 |
| Traffic Density | 0.0 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 0.0 |
| Other Decision Support | — |
| 2016 Voting | 0.0 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 55.0 |
| Healthy Places Index Score for Project Location (b) | — |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8. User Changes to Default Data

| Screen | Justification |
|---|---|
| Land Use | Provided by applicant and estimated based on site plans |
| Construction: Off-Road Equipment | assumed electric generator because site has electricity connections. otherwise, all default assumptions. |
| Construction: Trips and VMT | defaults, with odd numbers rounded up. water trucks added as vendor trips. |
| Operations: Vehicle Data | Project Trip generation provided |

# Norco College_LST Detailed Report

## Table of Contents

# 1. Basic Project Information

## 1.1. Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Norco College_LST |
| Construction Start Date | 1/2/2025 |
| Operational Year | 2026 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.60 |
| Precipitation (days) | 19.2 |
| Location | 33.91806119466557, -117.57100876147516 |
| County | Riverside-South Coast |
| City | Norco |
| Air District | South Coast AQMD |
| Air Basin | South Coast |
| TAZ | 5443 |
| EDFZ | 11 |
| Electric Utility | Southern California Edison |
| Gas Utility | Southern California Gas |
| App Version | 2022.1.1.28 |

## 1.2. Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---|---|---|---|---|---|---|---|---|
| University/College (4yr) | 1,000 | Student | 0.55 | 56,284 | 24,340 | 24,340 | — | — |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Other Non-Asphalt Surfaces | 35.0 | 1000sqft | 0.80 | 0.00 | 0.00 | — | — | — |
| Other Asphalt Surfaces | 1.20 | 1000sqft | 0.03 | 0.00 | — | — | — | — |

## 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

# 2. Emissions Summary

## 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.97 | 8.15 | 9.51 | 0.02 | 0.30 | 0.00 | 0.30 | 0.27 | 0.00 | 0.27 | 1,697 | 0.07 | 0.01 | 0.00 | 1,703 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 53.3 | 14.1 | 15.1 | 0.02 | 0.64 | 2.78 | 3.43 | 0.59 | 1.34 | 1.93 | 2,494 | 0.10 | 0.02 | 0.00 | 2,502 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 2.11 | 5.60 | 6.47 | 0.01 | 0.21 | 0.07 | 0.27 | 0.19 | 0.02 | 0.22 | 1,136 | 0.05 | 0.01 | 0.00 | 1,140 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.38 | 1.02 | 1.18 | < 0.005 | 0.04 | 0.01 | 0.05 | 0.04 | < 0.005 | 0.04 | 188 | 0.01 | < 0.005 | 0.00 | 189 |

## 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.97 | 8.15 | 9.51 | 0.02 | 0.30 | 0.00 | 0.30 | 0.27 | 0.00 | 0.27 | 1,697 | 0.07 | 0.01 | 0.00 | 1,703 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 53.3 | 14.1 | 15.1 | 0.02 | 0.64 | 2.78 | 3.43 | 0.59 | 1.34 | 1.93 | 2,494 | 0.10 | 0.02 | 0.00 | 2,502 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 2.11 | 5.60 | 6.47 | 0.01 | 0.21 | 0.07 | 0.27 | 0.19 | 0.02 | 0.22 | 1,136 | 0.05 | 0.01 | 0.00 | 1,140 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2025 | 0.38 | 1.02 | 1.18 | < 0.005 | 0.04 | 0.01 | 0.05 | 0.04 | < 0.005 | 0.04 | 188 | 0.01 | < 0.005 | 0.00 | 189 |

## 2.4. Operations Emissions Compared Against Thresholds

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 6.49 | 5.16 | 42.9 | 0.10 | 0.14 | 8.59 | 8.74 | 0.14 | 2.18 | 2.32 | 11,884 | 10.8 | 0.46 | 35.3 | 12,328 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 5.78 | 5.45 | 34.1 | 0.10 | 0.14 | 8.59 | 8.73 | 0.13 | 2.18 | 2.31 | 11,262 | 10.8 | 0.48 | 1.13 | 11,677 |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 5.40 | 4.88 | 32.1 | 0.09 | 0.13 | 7.28 | 7.41 | 0.13 | 1.85 | 1.97 | 9,989 | 10.8 | 0.42 | 13.2 | 10,396 |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.99 | 0.89 | 5.85 | 0.02 | 0.02 | 1.33 | 1.35 | 0.02 | 0.34 | 0.36 | 1,654 | 1.78 | 0.07 | 2.18 | 1,721 |

## 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Sector | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.69 | 4.29 | 39.7 | 0.10 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 10,102 | 0.40 | 0.45 | 35.1 | 10,280 |
| Area | 1.75 | 0.02 | 2.45 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 10.1 | < 0.005 | < 0.005 | — | 10.1 |
| Energy | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,651 | 0.15 | 0.01 | — | 1,658 |
| Water | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Waste | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Total | 6.49 | 5.16 | 42.9 | 0.10 | 0.14 | 8.59 | 8.74 | 0.14 | 2.18 | 2.32 | 11,884 | 10.8 | 0.46 | 35.3 | 12,328 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 4.38 | 4.59 | 33.4 | 0.09 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 9,490 | 0.41 | 0.46 | 0.91 | 9,638 |
| Area | 1.35 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Energy | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,651 | 0.15 | 0.01 | — | 1,658 |
| Water | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Waste | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Total | 5.78 | 5.45 | 34.1 | 0.10 | 0.14 | 8.59 | 8.73 | 0.13 | 2.18 | 2.31 | 11,262 | 10.8 | 0.48 | 1.13 | 11,677 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 3.72 | 4.01 | 29.7 | 0.08 | 0.06 | 7.28 | 7.34 | 0.06 | 1.85 | 1.91 | 8,210 | 0.36 | 0.40 | 13.0 | 8,351 |
| Area | 1.63 | 0.01 | 1.68 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 6.89 | < 0.005 | < 0.005 | — | 6.92 |
| Energy | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,651 | 0.15 | 0.01 | — | 1,658 |
| Water | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Waste | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Total | 5.40 | 4.88 | 32.1 | 0.09 | 0.13 | 7.28 | 7.41 | 0.13 | 1.85 | 1.97 | 9,989 | 10.8 | 0.42 | 13.2 | 10,396 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Mobile | 0.68 | 0.73 | 5.42 | 0.01 | 0.01 | 1.33 | 1.34 | 0.01 | 0.34 | 0.35 | 1,359 | 0.06 | 0.07 | 2.15 | 1,383 |
| Area | 0.30 | < 0.005 | 0.31 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 1.14 | < 0.005 | < 0.005 | — | 1.15 |
| Energy | 0.01 | 0.16 | 0.13 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 273 | 0.02 | < 0.005 | — | 274 |
| Water | — | — | — | — | — | — | — | — | — | — | 3.68 | 0.07 | < 0.005 | — | 5.93 |
| Waste | — | — | — | — | — | — | — | — | — | — | 16.3 | 1.63 | 0.00 | — | 57.0 |
| Refrig. | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.04 | 0.04 |
| Total | 0.99 | 0.89 | 5.85 | 0.02 | 0.02 | 1.33 | 1.35 | 0.02 | 0.34 | 0.36 | 1,654 | 1.78 | 0.07 | 2.18 | 1,721 |

# 3. Construction Emissions Details

## 3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.47 | 13.9 | 15.1 | 0.02 | 0.57 | — | 0.57 | 0.52 | — | 0.52 | 2,494 | 0.10 | 0.02 | — | 2,502 |
| Demolition | — | — | — | — | — | 0.39 | 0.39 | — | 0.06 | 0.06 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.08 | 0.76 | 0.83 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | 137 | 0.01 | < 0.005 | — | 137 |
| Demolition | — | — | — | — | — | 0.02 | 0.02 | — | < 0.005 | < 0.005 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.14 | 0.15 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 22.6 | < 0.005 | < 0.005 | — | 22.7 |
| Demolition | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.31 | 12.1 | 12.1 | 0.02 | 0.56 | — | 0.56 | 0.52 | — | 0.52 | 2,065 | 0.08 | 0.02 | — | 2,072 |
| Dust From Material Movement | — | — | — | — | — | 2.44 | 2.44 | — | 1.17 | 1.17 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.07 | 0.07 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 11.3 | < 0.005 | < 0.005 | — | 11.4 |
| Dust From Material Movement | — | — | — | — | — | 0.01 | 0.01 | — | 0.01 | 0.01 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | 0.01 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 1.87 | < 0.005 | < 0.005 | — | 1.88 |
| Dust From Material Movement | — | — | — | — | — | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.5. Grading (2025) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.51 | 14.1 | 14.5 | 0.02 | 0.64 | — | 0.64 | 0.59 | — | 0.59 | 2,455 | 0.10 | 0.02 | — | 2,463 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dust From Material Movement | — | — | — | — | — | 2.78 | 2.78 | — | 1.34 | 1.34 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.15 | 0.16 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 26.9 | < 0.005 | < 0.005 | — | 27.0 |
| Dust From Material Movement | — | — | — | — | — | 0.03 | 0.03 | — | 0.01 | 0.01 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | 0.03 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 4.45 | < 0.005 | < 0.005 | — | 4.47 |
| Dust From Material Movement | — | — | — | — | — | 0.01 | 0.01 | — | < 0.005 | < 0.005 | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.7. Building Construction (2025) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.97 | 8.15 | 9.51 | 0.02 | 0.30 | — | 0.30 | 0.27 | — | 0.27 | 1,697 | 0.07 | 0.01 | — | 1,703 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.97 | 8.15 | 9.51 | 0.02 | 0.30 | — | 0.30 | 0.27 | — | 0.27 | 1,697 | 0.07 | 0.01 | — | 1,703 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.53 | 4.47 | 5.21 | 0.01 | 0.16 | — | 0.16 | 0.15 | — | 0.15 | 930 | 0.04 | 0.01 | — | 933 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Off-Road Equipment | 0.10 | 0.82 | 0.95 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | 154 | 0.01 | < 0.005 | — | 155 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.9. Paving (2025) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.49 | 4.63 | 6.50 | 0.01 | 0.20 | — | 0.20 | 0.19 | — | 0.19 | 992 | 0.04 | 0.01 | — | 995 |
| Paving | 0.01 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.13 | 0.18 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 27.2 | < 0.005 | < 0.005 | — | 27.3 |
| Paving | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | 0.02 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 4.50 | < 0.005 | < 0.005 | — | 4.51 |
| Paving | < 0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.11. Architectural Coating (2025) - Unmitigated

### Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.88 | 1.14 | < 0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | 134 | 0.01 | < 0.005 | — | 134 |
| Architectural Coatings | 53.2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | 0.02 | 0.03 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 3.66 | < 0.005 | < 0.005 | — | 3.67 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectural | 1.46 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | < 0.005 | < 0.005 | 0.01 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 0.61 | < 0.005 | < 0.005 | — | 0.61 |
| Architectural Coatings | 0.27 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# 4. Operations Emissions Details

## 4.1. Mobile Emissions by Land Use

### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | 4.69 | 4.29 | 39.7 | 0.10 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 10,102 | 0.40 | 0.45 | 35.1 | 10,280 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 4.69 | 4.29 | 39.7 | 0.10 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 10,102 | 0.40 | 0.45 | 35.1 | 10,280 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | 4.38 | 4.59 | 33.4 | 0.09 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 9,490 | 0.41 | 0.46 | 0.91 | 9,638 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 4.38 | 4.59 | 33.4 | 0.09 | 0.07 | 8.59 | 8.67 | 0.07 | 2.18 | 2.25 | 9,490 | 0.41 | 0.46 | 0.91 | 9,638 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| University/ (4yr) | 0.68 | 0.73 | 5.42 | 0.01 | 0.01 | 1.33 | 1.34 | 0.01 | 0.34 | 0.35 | 1,359 | 0.06 | 0.07 | 2.15 | 1,383 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 0.68 | 0.73 | 5.42 | 0.01 | 0.01 | 1.33 | 1.34 | 0.01 | 0.34 | 0.35 | 1,359 | 0.06 | 0.07 | 2.15 | 1,383 |

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 635 | 0.06 | 0.01 | — | 639 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 635 | 0.06 | 0.01 | — | 639 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 635 | 0.06 | 0.01 | — | 639 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 635 | 0.06 | 0.01 | — | 639 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 105 | 0.01 | < 0.005 | — | 106 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 105 | 0.01 | < 0.005 | — | 106 |

## 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,016 | 0.09 | < 0.005 | — | 1,019 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,016 | 0.09 | < 0.005 | — | 1,019 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,016 | 0.09 | < 0.005 | — | 1,019 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.05 | 0.85 | 0.72 | 0.01 | 0.06 | — | 0.06 | 0.06 | — | 0.06 | 1,016 | 0.09 | < 0.005 | — | 1,019 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | 0.01 | 0.16 | 0.13 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 168 | 0.01 | < 0.005 | — | 169 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | 0.01 | 0.16 | 0.13 | < 0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | 168 | 0.01 | < 0.005 | — | 169 |

## 4.3. Area Emissions by Source

### 4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Source | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 1.21 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Architectu Coatings | 0.15 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.40 | 0.02 | 2.45 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 10.1 | < 0.005 | < 0.005 | — | 10.1 |
| Total | 1.75 | 0.02 | 2.45 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 10.1 | < 0.005 | < 0.005 | — | 10.1 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 1.21 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.15 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | 1.35 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Consumer Products | 0.22 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Architectural Coatings | 0.03 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Landscape Equipment | 0.05 | < 0.005 | 0.31 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 1.14 | < 0.005 | < 0.005 | — | 1.15 |
| Total | 0.30 | < 0.005 | 0.31 | < 0.005 | < 0.005 | — | < 0.005 | < 0.005 | — | < 0.005 | 1.14 | < 0.005 | < 0.005 | — | 1.15 |

## 4.4. Water Emissions by Land Use

### 4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 22.2 | 0.42 | 0.01 | — | 35.8 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 3.68 | 0.07 | < 0.005 | — | 5.93 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 3.68 | 0.07 | < 0.005 | — | 5.93 |

## 4.5. Waste Emissions by Land Use

### 4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 98.4 | 9.83 | 0.00 | — | 344 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | 16.3 | 1.63 | 0.00 | — | 57.0 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Non-Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Other Asphalt Surfaces | — | — | — | — | — | — | — | — | — | — | 0.00 | 0.00 | 0.00 | — | 0.00 |
| Total | — | — | — | — | — | — | — | — | — | — | 16.3 | 1.63 | 0.00 | — | 57.0 |

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.22 | 0.22 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| University/ College (4yr) | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.04 | 0.04 |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | 0.04 | 0.04 |

## 4.7. Offroad Emissions By Equipment Type

### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.8. Stationary Emissions By Equipment Type

### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.9. User Defined Emissions By Equipment Type

### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Equipment Type | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10. Soil Carbon Accumulation By Vegetation Type

### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetation | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5. Activity Data

## 5.1. Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| Demolition | Demolition | 1/2/2025 | 1/30/2025 | 5.00 | 20.0 | — |
| Site Preparation | Site Preparation | 1/31/2025 | 2/2/2025 | 5.00 | 2.00 | — |
| Grading | Grading | 2/3/2025 | 2/8/2025 | 5.00 | 4.00 | — |
| Building Construction | Building Construction | 2/9/2025 | 11/16/2025 | 5.00 | 200 | — |
| Paving | Paving | 11/17/2025 | 12/1/2025 | 5.00 | 10.0 | — |
| Architectural Coating | Architectural Coating | 12/2/2025 | 12/16/2025 | 5.00 | 10.0 | — |

## 5.2. Off-Road Equipment

### 5.2.1. Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Demolition | Tractors/Loaders/Backhoes | Diesel | Average | 3.00 | 8.00 | 84.0 | 0.37 |
| Demolition | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Demolition | Concrete/Industrial Saws | Diesel | Average | 1.00 | 8.00 | 33.0 | 0.73 |
| Site Preparation | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Site Preparation | Rubber Tired Dozers | Diesel | Average | 1.00 | 7.00 | 367 | 0.40 |
| Site Preparation | Tractors/Loaders/Backhoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Tractors/Loaders/Backhoes | Diesel | Average | 2.00 | 7.00 | 84.0 | 0.37 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 6.00 | 367 | 0.29 |
| Building Construction | Forklifts | Diesel | Average | 1.00 | 6.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Electric | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Tractors/Loaders/Backhoes | Diesel | Average | 1.00 | 6.00 | 84.0 | 0.37 |
| Building Construction | Welders | Diesel | Average | 3.00 | 8.00 | 46.0 | 0.45 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Paving | Tractors/Loaders/Back | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Paving | Pavers | Diesel | Average | 1.00 | 6.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Average | 1.00 | 8.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Average | 1.00 | 7.00 | 36.0 | 0.38 |
| Paving | Cement and Mortar Mixers | Diesel | Average | 1.00 | 6.00 | 10.0 | 0.56 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.00 | 6.00 | 37.0 | 0.48 |

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Demolition | — | — | — | — |
| Demolition | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Demolition | Vendor | 0.00 | 10.2 | HHDT,MHDT |
| Demolition | Hauling | 0.00 | 20.0 | HHDT |
| Demolition | Onsite truck | — | — | HHDT |
| Site Preparation | — | — | — | — |
| Site Preparation | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Site Preparation | Vendor | 0.00 | 10.2 | HHDT,MHDT |
| Site Preparation | Hauling | 0.00 | 20.0 | HHDT |
| Site Preparation | Onsite truck | — | — | HHDT |
| Grading | — | — | — | — |
| Grading | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Grading | Vendor | 0.00 | 10.2 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |

| | | | | |
|---|---|---|---|---|
| Building Construction | Vendor | 0.00 | 10.2 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Paving | Vendor | 0.00 | 10.2 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 0.00 | 18.5 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | 0.00 | 10.2 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|---|
| Architectural Coating | 0.00 | 0.00 | 84,426 | 28,142 | 2,172 |

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (Ton of Debris) | Acres Paved (acres) |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Demolition | 0.00 | 0.00 | 0.00 | 558 | — |
| Site Preparation | — | — | 1.88 | 0.00 | — |
| Grading | 3,765 | — | 4.00 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 0.83 |

### 5.6.2. Construction Earthmoving Control Strategies

| Control Strategies Applied | Frequency (per day) | PM10 Reduction | PM2.5 Reduction |
|---|---|---|---|
| Water Exposed Area | 2 | 61% | 61% |
| Water Demolished Area | 2 | 36% | 36% |

## 5.7. Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| University/College (4yr) | 0.00 | 0% |
| Other Non-Asphalt Surfaces | 0.80 | 0% |
| Other Asphalt Surfaces | 0.03 | 100% |

## 5.8. Construction Electricity Consumption and Emissions Factors

### kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2025 | 61.8 | 349 | 0.03 | < 0.005 |

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

| Land Use Type | Trips/Weekday | Trips/Saturday | Trips/Sunday | Trips/Year | VMT/Weekday | VMT/Saturday | VMT/Sunday | VMT/Year |
|---|---|---|---|---|---|---|---|---|
| University/College (4yr) | 1,150 | 1,150 | 0.00 | 359,786 | 12,130 | 12,130 | 0.00 | 3,795,095 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Other Non-Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 5.10. Operational Area Sources

### 5.10.1. Hearths

### 5.10.1.1. Unmitigated

### 5.10.2. Architectural Coatings

| Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|
| 0 | 0.00 | 84,426 | 28,142 | 2,172 |

### 5.10.3. Landscape Equipment

| Season | Unit | Value |
|---|---|---|
| Snow Days | day/yr | 0.00 |
| Summer Days | day/yr | 250 |

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

| Land Use | Electricity (kWh/yr) | CO2 | CH4 | N2O | Natural Gas (kBTU/yr) |
|---|---|---|---|---|---|
| University/College (4yr) | 669,594 | 346 | 0.0330 | 0.0040 | 3,171,232 |
| Other Non-Asphalt Surfaces | 0.00 | 346 | 0.0330 | 0.0040 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 346 | 0.0330 | 0.0040 | 0.00 |

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

| Land Use | Indoor Water (gal/year) | Outdoor Water (gal/year) |
|---|---|---|
| University/College (4yr) | 2,141,100 | 857,618 |
| Other Non-Asphalt Surfaces | 0.00 | 0.00 |
| Other Asphalt Surfaces | 0.00 | 0.00 |

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

| Land Use | Waste (ton/year) | Cogeneration (kWh/year) |
|---|---|---|
| University/College (4yr) | 183 | — |
| Other Non-Asphalt Surfaces | 0.00 | — |
| Other Asphalt Surfaces | 0.00 | — |

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

| Land Use Type | Equipment Type | Refrigerant | GWP | Quantity (kg) | Operations Leak Rate | Service Leak Rate | Times Serviced |
|---|---|---|---|---|---|---|---|
| University/College (4yr) | Household refrigerators and/or freezers | R-134a | 1,430 | 0.02 | 0.60 | 0.00 | 1.00 |
| University/College (4yr) | Other commercial A/C and heat pumps | R-410A | 2,088 | < 0.005 | 4.00 | 4.00 | 18.0 |
| University/College (4yr) | Stand-alone retail refrigerators and freezers | R-134a | 1,430 | < 0.005 | 1.00 | 0.00 | 1.00 |
| University/College (4yr) | Walk-in refrigerators and freezers | R-404A | 3,922 | < 0.005 | 7.50 | 7.50 | 20.0 |

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

| Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|

## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

| Equipment Type | Fuel Type | Number per Day | Hours per Day | Hours per Year | Horsepower | Load Factor |
|---|---|---|---|---|---|---|

### 5.16.2. Process Boilers

| Equipment Type | Fuel Type | Number | Boiler Rating (MMBtu/hr) | Daily Heat Input (MMBtu/day) | Annual Heat Input (MMBtu/yr) |
|---|---|---|---|---|---|

## 5.17. User Defined

| Equipment Type | Fuel Type |
|---|---|

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

# 6. Climate Risk Detailed Report

## 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 16.3 | annual days of extreme heat |
| Extreme Precipitation | 3.50 | annual days with precipitation above 20 mm |
| Sea Level Rise | — | meters of inundation depth |
| Wildfire | 17.3 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | 2 | 0 | 0 | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |

| | | | | |
|---|---|---|---|---|
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | 0 | 0 | 0 | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | 2 | 1 | 1 | 3 |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | N/A | N/A | N/A | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | 1 | 1 | 1 | 2 |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 80.0 |
| AQ-PM | 91.8 |
| AQ-DPM | 25.3 |
| Drinking Water | 98.1 |
| Lead Risk Housing | 3.40 |
| Pesticides | 0.00 |
| Toxic Releases | 66.2 |
| Traffic | 24.1 |
| Effect Indicators | — |
| CleanUp Sites | 83.9 |
| Groundwater | 65.5 |
| Haz Waste Facilities/Generators | 26.7 |
| Impaired Water Bodies | 43.8 |
| Solid Waste | 0.00 |
| Sensitive Population | — |
| Asthma | 23.2 |
| Cardio-vascular | 75.2 |
| Low Birth Weights | — |
| Socioeconomic Factor Indicators | — |
| Education | 83.8 |
| Housing | — |
| Linguistic | 67.2 |
| Poverty | 26.7 |
| Unemployment | 3.58 |

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Economic | — |
| Above Poverty | — |
| Employed | — |
| Median HI | — |
| Education | — |
| Bachelor's or higher | — |
| High school enrollment | — |
| Preschool enrollment | — |
| Transportation | — |
| Auto Access | — |
| Active commuting | — |
| Social | — |
| 2-parent households | — |
| Voting | — |
| Neighborhood | — |
| Alcohol availability | — |
| Park access | — |
| Retail density | — |
| Supermarket access | — |
| Tree canopy | — |
| Housing | — |
| Homeownership | — |
| Housing habitability | — |
| Low-inc homeowner severe housing cost burden | — |
| Low-inc renter severe housing cost burden | — |

| | |
|---|---|
| Uncrowded housing | — |
| Health Outcomes | — |
| Insured adults | — |
| Arthritis | 0.0 |
| Asthma ER Admissions | 64.1 |
| High Blood Pressure | 0.0 |
| Cancer (excluding skin) | 0.0 |
| Asthma | 0.0 |
| Coronary Heart Disease | 0.0 |
| Chronic Obstructive Pulmonary Disease | 0.0 |
| Diagnosed Diabetes | 0.0 |
| Life Expectancy at Birth | 0.0 |
| Cognitively Disabled | 5.8 |
| Physically Disabled | 16.6 |
| Heart Attack ER Admissions | 14.7 |
| Mental Health Not Good | 0.0 |
| Chronic Kidney Disease | 0.0 |
| Obesity | 0.0 |
| Pedestrian Injuries | 0.0 |
| Physical Health Not Good | 0.0 |
| Stroke | 0.0 |
| Health Risk Behaviors | — |
| Binge Drinking | 0.0 |
| Current Smoker | 0.0 |
| No Leisure Time for Physical Activity | 0.0 |
| Climate Change Exposures | — |
| Wildfire Risk | 0.0 |
| SLR Inundation Area | 0.0 |

| | |
|---|---|
| Children | 97.9 |
| Elderly | 97.6 |
| English Speaking | 0.0 |
| Foreign-born | 0.0 |
| Outdoor Workers | 54.8 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 86.9 |
| Traffic Density | 0.0 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 0.0 |
| Other Decision Support | — |
| 2016 Voting | 0.0 |

## 7.3. Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 55.0 |
| Healthy Places Index Score for Project Location (b) | — |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.4. Health & Equity Measures

No Health & Equity Measures selected.

## 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8. User Changes to Default Data

| Screen | Justification |
|---|---|
| Land Use | Provided by applicant and estimated based on site plans |
| Construction: Off-Road Equipment | assumed electric generator because site has electricity connections. otherwise, all default assumptions. |
| Construction: Trips and VMT | LST Run- no vendor, worker, or haul trips. |
| Operations: Vehicle Data | Project Trip generation provided |

# Appendix B

## Archaeological Resources Inventory Letter Report

38 NORTH MARENGO AVENUE
PASADENA, CALIFORNIA 91101
T 626.204.9800 F 626.204.9834

March 18, 2022 13705

Hussain Agah
Associate Vice Chancellor, Facilities Planning & Development
Riverside Community College District
3801 Market Street, 3rd Floor
Riverside, California 92501

***Subject:*** ***Archaeological Resources Inventory Letter Report for the Norco College Center for Human Performance and Kinesiology Project, Riverside County, California***

Dear Mr. Hussain Agah:

The Riverside Community College District (RCCD) retained Dudek to conduct an archaeological resources inventory letter report for the proposed Norco College Center for Human Performance and Kinesiology Project (proposed Project), located in Riverside County, California. The proposed Project would involve the construction of the Center for Human Performance and Kinesiology building (CHP+K building or building), to support Norco College's Physical Education Program. This letter report documents the results of the following components: 1) a California Historical Resources Information System (CHRIS) records search; 2) a search of the California Native American Heritage Commission's (NAHC) Sacred Lands File (SLF); 3) an environmental setting including a review of soils; 4) a review of historical maps and aerial photographs; 5) an analysis of the sensitivity of the proposed Project site to contain archaeological resources; and 6) management recommendations. The RCCD is the lead agency responsible for compliance with the California Environmental Quality Act (CEQA).

# Project Location and Description

The approximately 0.55-acre proposed Project site is located in the City of Norco (City), in the extreme northwestern portion of Riverside County, near a tri-county meeting point with Los Angeles and San Bernardino Counties. The proposed Project site falls on public land survey system Sections 12 and 13 of Township 3 South, Range 7 West on the *Corona North*, CA 7.5-minute United States Geological Survey (USGS) Quadrangle (Attachment A: Figure 1). More specifically, the proposed Project site is located on the western portion of the campus, east of the Soccer Field, and west of West End Drive (Attachment A: Figure 2).

The proposed Project would involve the construction of the Center for Human Performance and Kinesiology building (CHP+K building or building), a 55,081 gross square foot (GSF), 2-story building, which would support Norco College's Physical Education Program. The building would include one 1,500 assignable square foot (ASF) classroom laboratory, 740 ASF if office space, a 400 ASF conference room, a 500 ASF lounge, and 33,710 ASF of athletic space. The athletics space would include a multi-use gymnasium with retractable seating for 500, a weight room, a training room, a cardio and wellness studio, exercise studios, storage space, laundry room, student locker rooms, and faculty changing rooms.

Landscaped areas would be provided along the perimeter of the building and would include drought-tolerant landscaping. The existing row of trees located at the eastern perimeter of the site would remain in place.

The proposed Project site would only be accessible to maintenance vehicles. A paved walking path that could also be used by services vehicles would be constructed to connect the existing roundabout located on West End Drive to the new building. Bollards would be placed at the connection point with West End Drive to limit access for maintenance vehicles. Service vehicles would also be able to access the building from the upper quad area north of the new building. No parking spaces would be available within the proposed Project site boundary.

## Environmental Setting and Review of Soils

The proposed Project site is within California's Transverse Ranges geomorphic province, which is defined by an east-west trending series of steep mountain ranges and valleys (California Geological Survey 2002). The transverse ranges include the Santa Ana Mountains to the southwest, the San Jacinto Mountains to the southeast, and the San Gabriel and San Bernardino Mountains to the north. More specifically, the proposed Project site is within the City of Norco (City) in northwestern Riverside County. The City is bound to the north by the Santa Ana River, to the west by the Prado Basin, and to the east and south by the Norco Hills. The topography within the proposed Project site consists of lightly undulating valleys amongst gently rising hills.

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2021a), eight soil types have been identified in the proposed Project site: Bonsall fine sandy loam, 2 to 8 percent slopes and Delhi fine sand, 2 to 15 percent slopes, wind-eroded. The soil series are described below according to their official soil descriptions (USDA 2021b).

**Bonsall Series:** Bonsall series consists of soils found on gently to moderately sloping lands at elevations of 200 to 2,500 feet. They formed in residuum weathered from granite or granodiorite. Naturalized vegetation is mainly annual forbs and grasses. A typical Bonsall series pedon extends 305 inches below ground surface (bgs).

**Delhi Series:** Delhi series soils are found on 0 to 15 percent slopes at elevations of 25 to 1,400 feet. They formed in wind-modified alluvium derived from granitic rock sources on floodplains, alluvial fans, and terraces. Principal native plants are buckwheat and a few shrubs and trees. Typical vegetation is annual grasses and forbs. A typical Delhi series pedon extends 178 inches bgs. Delhi fine sand, 2 to 15 percent slopes, wind-eroded.

A review of the USGS mineral resources (USGS 2021) online spatial data for geology indicates that the proposed Project site is comprised of Mesozoic granitic rocks, unit 2 (Peninsular Ranges) from the middle Jurassic to Late Cretaceous epoch. These formations have low potential to support the presence of buried archaeological resources.

# Regulatory Context

## State

Work for this proposed Project was conducted in compliance with the CEQA. The regulatory framework as it pertains to cultural resources under CEQA is detailed below.

Under the provisions of CEQA, including the CEQA Statutes (PRC Sections 21083.2 and 21084.1), the CEQA Guidelines (14 CCR 15064.5), and California Public Resources Code (PRC) Section 5024.1 (14 CCR 4850 et seq.), properties expected to be directly or indirectly affected by a proposed project must be evaluated for California Register of Historical Resources (CRHR) eligibility (PRC Section 5024.1).

The purpose of the CRHR is to maintain listings of the state's historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change. The term historical resources includes a resource listed in or determined to be eligible for listing in the CRHR; a resource included in a local register of historical resources; and any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (14 CCR 15064.5[a]). The criteria for listing properties in the CRHR were developed in accordance with previously established criteria developed for listing in the National Register of Historic Places. The California Office of Historic Preservation regards "any physical evidence of human activities over 45 years old" as meriting recordation and evaluation (OHP 1995:2).

## California Register of Historic Resources

A cultural resource is considered "historically significant" under CEQA if the resource meets one or more of the criteria for listing on the CRHR. The CRHR was designed to be used by state and local agencies, private groups, and citizens to identify existing cultural resources within the state and to indicate which of those resources should be protected, to the extent prudent and feasible, from substantial adverse change. The following criteria have been established for the CRHR. A resource is considered significant if it:

1. is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. is associated with the lives of persons important in our past;
3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the above criteria, historical resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be able to convey the reasons for their significance. Such integrity is evaluated in regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

- An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
    - Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information

  - Has a special and particular quality, such as being the oldest of its type or the best available example of its type
  - Is directly associated with a scientifically recognized important prehistoric or historic event or person

Resources that neither meet any of these criteria for listing in the CRHR nor qualify as a "unique archaeological resource" under CEQA (PRC Section 21083.2) are viewed as not significant. Under CEQA, "A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects" (PRC Section 21083.2[h]).

Impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. Impacts to historical resources from a proposed project are thus considered significant if the project (1) physically destroys or damages all or part of a resource; (2) changes the character of the use of the resource or physical feature within the setting of the resource, which contributes to its significance; or (3) introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

## California Environmental Quality Act

As described further, the following CEQA statutes (PRC Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- PRC Section 21083.2(g) defines "unique archaeological resource."
- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) defines "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource;" it also defines the circumstances when a project would materially impair the significance of a historical resource.
- PRC Section 21074(a) defines "tribal cultural resources."
- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- PRC Sections 21083.2(b)–(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures. Preservation in place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context, and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; 14 CCR

15064.5[b]). If a site is listed or eligible for listing in the CRHR, or included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1[q]), it is an "historical resource" and is presumed to be historically or culturally significant for purposes of CEQA (PRC Section 21084.1; 14 CCR 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (PRC Section 21084.1; 14 CCR 15064.5[a]).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (14 CCR 15064.5[b][1]; PRC Section 5020.1[q]). In turn, the significance of a historical resource is materially impaired when a project does any of the following:

1) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or

2) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

3) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA (14 CCR 15064.5[b][2]).

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a proposed Project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Sections 21083.2[a]–[c]).

PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.

3) Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC Section 21083.2[g]).

Impacts on nonunique archaeological resources are generally not considered a significant environmental impact (PRC Section 21083.2[a]; 14 CCR 15064.5[c][4]). However, if a nonunique archaeological resource qualifies as a tribal cultural resource (PRC Sections 21074[c] and 21083.2[h]), further consideration of significant impacts is required.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in PRC Section 5097.98.

## California State Assembly Bill 52

Assembly Bill (AB) 52 of 2014 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that tribal cultural resources must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. PRC Section 21074 describes a tribal cultural resource as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe. A tribal cultural resource is either:

- On the CRHR or a local historic register;
- Eligible for the CRHR or a local historic register; or
- 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 PRC Section 5024.1.

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project area, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

Section 1 (a)(9) of AB 52 establishes that “a substantial adverse change to a tribal cultural resource has a significant effect on the environment.” Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures “capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource.” Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

### California Health and Safety Code Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains (Section 7050.5[b]). Public Resources Code Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact NAHC within 24 hours (Section 7050.5[c]). NAHC will notify the "most likely descendant." With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains, and items associated with Native Americans.

## Local

### City of Norco General Plan Land Use Element

The City's General Plan Goal 2.7 describes archaeological and paleontological resources, a regulatory framework, and policies and plans to protect such resources. The planning goals and policies are described below (City of Norco 2009).

The Historic Resources Element of the City's General Plan (adopted in 2009) addresses archaeological and historical cultural resources. Goal 4.3 in the Goals and Policies section states that the City will "preserve from development, to the extent possible, the City's Historical and archaeological resources" Nine policies are enumerated to assist in implementation of the goal. The Historic Element also calls for an inventory of all historically significant sites and/or structures that require protection.

# Background Research

## CHRIS Records Search

The CHRIS is experiencing extensive delays in records search request turn-around times as a result of the COVID-19 pandemic. In an effort to provide this archaeological resources inventory report in a timely manner, Dudek utilized the results of a records search conducted for a previous Dudek report submitted to the RCCD titled *Cultural Resources Study for the Norco College Veterans Resource Center, City of Norco, Riverside County, California* (Colston and Comeau 2019). The records search for the aforementioned project covers the current proposed Project site, and is therefore considered adequate to support the analysis of previous cultural resources studies and previously recorded cultural resources within the current proposed Project site.

On August 10, 2018, Dudek conducted the CHRIS records search of the aforementioned proposed Project site and a 1-mile search radius at the Eastern Information Center (EIC), which houses cultural resources records for

Riverside County. The search included previously recorded prehistoric and historic-age archaeological resources as well as any historic-age built-environment resources; Department of Park and Recreation (DPR) site records; technical reports; archival resources; and ethnographic references. The CHRIS search also included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The confidential records search results are provided in Confidential Attachment B.

## Previously Conducted Cultural Resource Studies

Results of the CHRIS records search indicate that seventeen (17) previous cultural resources studies have been conducted within 1-mile of the proposed Project site. These studies were conducted between 1980 and 2017. One study, RI-01108, covers the Proposed Project site and indicates the prehistoric sensitivity of the surrounding area. A brief summary of this report is provided in the following paragraph. Table 1, below, provides a complete list of all 17 previously conducted studies within 1-mile of the proposed Project site.

### RI-01108

*Environmental Impact Evaluation: An Archaeological Assessment of the Proposed Riverside Community College District Site and Dean Homes Residential Development, Norco, California* (Drover 1987), documents the results of a cultural resources survey of a 285-acre property posed for development. A portion of the study area would later become the site of Norco College, which includes the six proposed work areas within the current Proposed Project site. Four prehistoric archaeological sites were identified within the 285-acre property as a result of the cultural resources study: P-33-001229/CA-RIV-001229, P-33-002315/CA-RIV-002315, P-33-002316/CA-RIV-002316, and P-33-002317/CA-RIV-002317. All of these sites consist of bedrock milling features. No associated prehistoric artifacts, ecofacts, or midden soils were documented at any of the bedrock milling sites. However, none of the sites were subject to subsurface testing, nor were they evaluated for eligibility for listing on the NRHP or CRHR. Although prehistoric resources were encountered during the survey, none of the sites were within close proximity to the current proposed Project site. The prehistoric resources were located southwest of the current proposed Project site with the closest milling site within 609 meters (2,000 feet) of the proposed Project site. Additionally, a review of historic aerial photographs for the current study indicates that the area where the four prehistoric resources were encountered during the 1987 study has since been developed into a residential neighborhood. As a result, it is likely that these prehistoric resources have since been destroyed.

## Table 1. Previously Conducted Cultural Resources Studies within 1-Mile of the Proposed Project site

| EIC Report Number | Authors | Year | Title | Proximity to Proposed Project site |
|---|---|---|---|---|
| RI-01108 | Drover, C. | 1987 | Environmental Impact Evaluation: An Archaeological Assessment of the Proposed Riverside Community College District Site and Dean Homes Residential Development, Norco, California | Overlaps Proposed Project site |
| RI-01109 | Feickert, H. | 1980 | Intensive Cultural Resources Survey on the Norco Naval Reservation, Riverside County, California | Outside |
| RI-01872 | Drover, C. | 1984 | An Archaeological Assessment of Proposed Installation of Wastewater Treatment Facilities for Norco, California | Outside |
| RI-01913 | McCarthy, D. | 1985 | An Archaeological Assessment of a Portion of a Proposed Interceptor Sewer Pipeline Right-of-Way in the Norco-Corona Area, Riverside County, California | Outside |
| RI-04087 | Wlodarski, R. | 1998 | A Phase I Archaeology Study: Norco Senior Housing Project (Phase II) (2 Acre Parcel of Land), City of Norco, Riverside County, California | Outside |
| RI-04333 | Urbas, A. | 1999 | Letter Report: Department of Corrections/California Rehabilitation Center, Norco, Riverside County, "Proposed Demolition of 28 Temporary WWII Barracks." Determination of Eligibility and Effect | Outside |
| RI-04334 | Urbas, A. | 2000 | Letter Report: Department of Corrections/California Rehabilitation Center, Norco, Riverside County, "Replacement of 28 Temporary WWI Barracks," Determination of Effect on the Norconian Club | Outside |
| RI-05409 | Love, B., B. Tang, M. Hogan, and M. Dahdul | 2001 | Historical/Archaeological Resources Survey Report, Arlington Desalter and Pipeline, Cities of Riverside, Corona, and Norco, Riverside County, California | Outside |
| RI-05663 | Billat, L. | 2005 | Letter Report: Historic Commission for Nextel of California (Nextel) Wireless Telecommunications Service (WTS) Facility Project Trail/ CA-8871A, in Norco, Riverside County, California | Outside |

## Table 1. Previously Conducted Cultural Resources Studies within 1-Mile of the Proposed Project site

| EIC Report Number | Authors | Year | Title | Proximity to Proposed Project site |
|---|---|---|---|---|
| RI-06083 | Billat, L. | 2004 | Letter Report: Proposed Cellular Tower Project in Riverside County, California, Site Name/Number: CA-8871/Trail | Outside |
| RI-07155 | Harper, C. | 2003 | Cultural Resource Assessment for Cingular Wireless Facility No. SB 260-02 in Norco, Riverside County, California | Outside |
| RI-07181 | Pletka, N. | 2003 | Cultural Resource Assessment: AT&T Wireless Services, Facility NO. 24002C, Norco, Riverside County, California | Outside |
| RI-07447 | Bonner, H. and M. Aislin-Kay | 2007 | Cultural Resource Records Search Results and Site Visit for Royal Street Communications, LLC Telecommunications Facility Candidate LA2311A (Storage Stop), 3475 Second Street, Norco, Riverside County, California | Outside |
| RI-07981 | Chandler, E., C. Cotterman, and J. Howard | 2008 | Cultural Resources Inventory of Proposed Pole Replacements in the City of Chino Hills, San Bernardino County and the Cities of Corona and Norco, Riverside County, California (DWO 6034-4800, AI 8-4850 and 8-4852) | Outside |
| RI-08766 | Tibbet, C., R. Goodwin, and J. Thornton | 2011 | Cultural Resources Assessment, Norco Ranch Commerce Park, City of Norco, Riverside County, California | Outside |
| RI-10262 | Perez, D. | 2017 | Archaeological Sensitivity Assessment RV90XSA44B/ 9CAB012573-B Tara Lane & Town and Country Road Norco, CA 92860 Riverside County EBI Project No. 6117004639 | Outside |
| RI-10272 | Bauman, J. | 2012 | Archaeological Resources Survey Report: Cultural Resources Investigations for the Early Warning Giant Voice (GV) System, Naval Weapons Station Seal Beach, Detachment Norco, Riverside County, California | Outside |

### Previously Recorded Cultural Resources

The Chris records search did not identify any previously recorded cultural resources within the proposed Project site. However, fifteen (15) previously recorded cultural resources were identified within 1-mile of the proposed

Project site. These resources consist of five (5) prehistoric sites and ten (10) historic-age built environment resources. Amongst the prehistoric archaeological resources are four (4) bedrock milling stations and one (1) low density lithic scatter. Table 2, below, provides a summary of the previously recorded cultural resources within 1-mile of the proposed Project site.

## Table 2. Previously Recorded Cultural Resources Within a 1-Mile Radius of the Proposed Project site

| Primary (P-33-) | Trinomial (CA-RIV-) | Resource Age and Type | Resource Description | NRHP Eligibility | Recording Events | Proximity to Proposed Project site |
|---|---|---|---|---|---|---|
| 001229 | 001229 | Prehistoric Site | Bedrock milling station with one milling slick | 7R. Identified during survey; Not evaluated | 1977 (Eastvold);<br>1980 (Feickert and Bjornsen);<br>1985 (McCarthy);<br>1987 (Drover) | Outside |
| 001230 | 001230 | Prehistoric Site | Low density lithic scatter collected in 1977. No artifacts remain as of the 1984 update. | 7R. Identified during survey; Not evaluated | 1977 (Eastvold);<br>1984 (Drover) | Outside |
| 002315 | 002315 | Prehistoric Site | Bedrock milling stations; two boulders each with one slick | 7R. Identified during survey; Not evaluated | 1977 (Eastvold);<br>1980 (Feickert and Bjornsen);<br>1987 (Drover) | Outside |
| 002316 | 002316 | Prehistoric Site | Bedrock milling station with seven milling slicks | 7R. Identified during survey; Not evaluated | 1977 (Eastvold);<br>1980 (Feickert and Bjornsen);<br>1985 (McCarthy);<br>1987 (Drover) | Outside |
| 002317 | 002317 | Prehistoric Site | Bedrock milling stations; two boulders each with one slick | 7R. Identified during survey; Not evaluated | 1977 (Eastvold);<br>1980 (Feickert and Bjornsen);<br>1985 (McCarthy);<br>1987 (Drover) | Outside |
| 009101 | — | Historic-age Built Environment, Club/Hotel | Lake Norconian Club/Hotel: Spanish Colonial Revival style built c. 1929 | 1S. Individual property listed in the NRHP and CRHR | 1998 (Ensley);<br>1999 (Urbas) | Outside |

## Table 2. Previously Recorded Cultural Resources Within a 1-Mile Radius of the Proposed Project site

| Primary (P-33-) | Trinomial (CA-RIV-) | Resource Age and Type | Resource Description | NRHP Eligibility | Recording Events | Proximity to Proposed Project site |
|---|---|---|---|---|---|---|
| 019900 | — | Historic-age Built Environment, Single Family Residence | 2214 Second Street: vernacular residence built 1927 | 6Z. Found ineligible for NRHP, CRHR, or local designation through survey evaluation | 2011 (Tibbet) | Outside |
| 019901 | — | Historic-age Built Environment, Single Family Residence | 2138 Second Street: vernacular farm cottage residence built 1924 | 6Z. Found ineligible for NRHP, CRHR, or local designation through survey evaluation | 2011 (Tibbet) | Outside |
| 019902 | — | Historic-age Built Environment, Single Family Residence | 2266 Second Street: Ranch-style residence built 1956 | 6Z. Found ineligible for NRHP, CRHR, or local designation through survey evaluation | 2011 (Tibbet) | Outside |
| 019903 | — | Historic-age Built Environment, Single Family Residence | 2390 Second Street: modest Ranch-style residence built 1958 | 6Z. Found ineligible for CRHR through survey evaluation; not evaluated for NRHP or local designation | 2011 (Tibbet) | Outside |
| 019906 | — | Historic-age Built Environment, Ranch | 1658 Mountain Avenue/Norco Egg Ranch: built 1956 | 5S3: Appears to be individually eligible for local listing designation through survey evaluation | 2011 (Tibbet) | Outside |
| 019911 | — | Historic-age Built Environment, Single Family Residence | 1463 Pacific Avenue: vernacular residence built 1947 | 6Z. Found ineligible for CRHR through survey evaluation; not evaluated for NRHP or local designation | 2011 (Tibbet) | Outside |
| 019912 | — | Historic-age Built Environment, Single Family Residence | 1577 Pacific Avenue: vernacular residence built 1920 | 6L. Determined ineligible for local designation; may warrant special consideration in local planning | 2011 (Tibbet) | Outside |

## Table 2. Previously Recorded Cultural Resources Within a 1-Mile Radius of the Proposed Project site

| Primary (P-33-) | Trinomial (CA-RIV-) | Resource Age and Type | Resource Description | NRHP Eligibility | Recording Events | Proximity to Proposed Project site |
|---|---|---|---|---|---|---|
| 019913 | — | Historic-age Built Environment, Single Family Residence | 1619 Pacific Avenue: vernacular farm cottage with Craftsman elements residence built 1916 | 6Z. Found ineligible for CRHR through survey evaluation; not evaluated for NRHP or local designation | 2011 (Tibbet) | Outside |
| 019937 | — | Historic-age Built Environment, Single Family Residence | 1661 Mountain Avenue: vernacular farm cottage residence built 1948 | 6Z. Found ineligible for NRHP, CRHR, or local designation through survey evaluation | 2011 (Tibbet) | Outside |

## Native American Coordination

### NAHC Sacred Lands File Search

Dudek requested a search of the SLF on October 29, 2021, to determine the presence of any Native American cultural resources within the proposed Project site. The NAHC maintains and reviews the SLF. Andrew Green, Cultural Resources Analyst, provided the SLF search results on December 14, 2021. The NAHC SLF records search results were negative for known Native American heritage resources within the proposed Project site. The NAHC identified 20 Native American individuals who would potentially have specific knowledge as to whether or not other cultural resources are identified within the proposed Project site that could be at-risk. To date, Dudek has not initiated contact with the individuals on the NAHC's contact list in regard to the proposed Project site. To date, Dudek has not initiated contact with the individuals on the NAHC's contact list, in regard to the current proposed Project site. However, in compliance with Assembly Bill 52, RCCD has contacted all NAHC-listed traditionally geographically affiliated tribal representatives that have requested project notification and is briefly discussed in the following section. Documentation of the NAHC SLF search results is provided in Attachment C.

Note: Sacred Land Files maintained by the NAHC represent a curation of "sacred lands" or TCRs provided by Tribal entities and Native American representatives. For various reasons, Tribal entities and Native American representatives do no not always report sacred lands or TCRs to the NAHC. As such, the NAHC's SLF is not a comprehensive list, and searches of the SLF must be considered in concert with other research and not used as a sole source of information regarding the presence of TCRs or cultural resources. Additionally, results of the SLF provided relate to the general regional area within and surrounding the proposed Project site and don't necessarily equate to the existence of resources within the specific area occupied by the proposed Project site.

## Assembly Bill 52

The proposed Project is subject to compliance with Assembly Bill (AB) 52 (PRC 21074), which requires consideration of impacts to TCRs as part of the CEQA process, and that the lead agency notify California Native American Tribal representatives that have requested notification who are traditionally or culturally affiliated with the geographic area of the proposed Project site. All records of correspondence related to AB 52 notification and any subsequent consultation are on file with RCCD. A summary of the consultation record is provided and addressed in the Initial Study/Mitigated Negative Declaration document for the proposed Project.

# Review of Historical Topographic Maps and Aerial Photographs

Dudek consulted historical topographic maps and aerial photographs to understand development of the proposed Project site and surrounding area. Important to note is that while topographic maps are informative, they do not show slight changes to a landscape overtime, and at times, are inconsistent with what is depicted year to year. Nevertheless, the information gathered contributes to the understanding of the chronological development of the proposed Project site.

## Historical Topographic Maps

USGS topographic maps for the proposed Project site are available for the years 1947 through 2018 (NETR 2021a). The first available topographic map of 1947 depicts the proposed Project site as within the 678-acre luxury resort known as the Lake Norconian Club.

By 1955, it is evident that the resort complex has been sold to the U.S. Navy as "NAVAL RESERVATION" is labeled over the complex. There have been slight alterations to some of the road alignments, though they have generally remained consistent with the previous year. On the 1982 topographic map, "NAVAL RESERVATION" has been changed to "NAVAL WEAPONS CENTER", though no other changes to the proposed Project site are depicted.

Norco College is first depicted on the 2012 topographic map as "Riverside Community College Norco Campus," indicating the sale of the government-owned land to RCCD. Though the map does not show any structures, the roads are in their present-day alignments. There are no features depicted within the proposed Project site.

There are no changes depicted within the proposed Project site on either the 2015 or 2018 topographic maps. However, directly north of the proposed Project site is the added perimeter of a naval base labeled "NWS-SEAL BEACH CORONA".

## Historic Aerial Photographs

A review of historical aerial photographs was conducted as part of the archival research effort from the following years: 1938, 1948, 1966, 1967, 1980, 1994, 1998, 1999, 2002, 2005, 2009, 2010, 2012, 2014, 2016, and 2018 (NETR 2021b). This section will only focus on noticeable changes to the Norco College Proposed Project site work areas as they developed over time and not the development of the Norco College campus as a whole.

The 1938 historic aerial photograph shows the proposed Project site within vacant and undeveloped land with the exception of a few dirt roads. The Lake Norconian resort complex is visible north of the proposed Project site along the north shore of Lake Norconian. The dirt roads that weave in and around the proposed Project site connect to the complex. The 1948 historic aerial photograph shows the Proposed Project site as relatively undisturbed. By 1966, two small sheds and a graded dirt parking lot/turn-around are visible within or immediately adjacent to the southeast corner of the proposed Project site. More substantial disturbances are visible within the proposed Project site on the 1980 aerial photograph. Numerous informal dirt roads of varying widths cut through site making a network of scars. The proposed Project site is entirely altered due to the construction of Norco College as seen on the 1994 aerial photograph. The proposed Project site has been subject to some degree of ground disturbance either through complete grading or plowing. Alterations to the proposed Project site continues until 2009 when the campus and proposed Project site looks much as it does today. There are no other substantial alterations to the proposed Project site through 2018 besides the routine disking and/or plowing.

## Pedestrian Survey

### Field Methods

An archaeological pedestrian survey was previously conducted at the Norco College Campus, which includes the current Project site and as such, the results of that survey will be used for this current study.

Dudek Associate Archaeologist, Adriane Gusick, conducted a pedestrian survey on August 25, 2021, using standard archaeological procedures and techniques. Survey techniques were adjusted to accommodate for variations in level of development, ground surface visibility, and terrain. An opportunistic survey approach was employed in areas with dense vegetation cover and low visibility, which involved meandering through vegetation, inspecting areas of cut banks when possible, and conducting boot scrapes in order to inspect the ground surface. An intensive-level survey was conducted within areas of good to moderate visibility resulting from recent plowing for weed abatement. The intensive-level survey entailed walking parallel transects spaced no more than 10 meters apart (approximately 32 feet).

Throughout the proposed Project site, the ground surface was inspected for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, groundstone tools, ceramics, fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, features indicative of structures and/or buildings (e.g., standing exterior walls, post holes, foundations), and historic-period artifacts (e.g., metal, glass, ceramics, building materials). Ground disturbances such as burrows, cut banks, and drainages were also visually inspected for exposed subsurface materials. Location-specific photographs were taken using an Apple 3rd Generation iPad equipped with 8-megapixel resolution and georeferenced PDF maps of the proposed Project site. All field notes, photographs, and records related to the current study are on file at Dudek's Pasadena, California, office.

### Results

The Proposed Project site is comprised of a relatively flat parcel of vacant and cultivated land adjacent to campus grounds. Ground visibility was poor to excellent (0 to 100 percent) depending on the level of disturbance. For example, a large scatter of gravel and piles of discarded landscaping material obscured a large portion of the ground surface work area, providing poor visibility. However, beyond the gravel and dumps was cultivated field and a maintained dirt road, which provided excellent visibility. As a result of repeated cultivation of the property over time, the surficial expression of the work area is considered entirely disturbed. No cultural materials were identified as a result of the pedestrian survey. Image 1 below shows the current proposed Project site conditions.

**Image 1.** View of proposed Project site, looking northeast (IMG_2240)

## Archaeological Sensitivity Analysis

The cultural resources study revealed that the potential for unrecorded cultural resources to exist within the proposed Project site is considered low based on the following factors: 1) though the topography and natural features that surround the proposed Project site are conducive to supporting prehistoric occupation, archival review and existing proposed Project site conditions determined that the proposed Project site has been routinely disturbed since at least the mid twentieth century and has remained undeveloped land for at least 75 years (with exception to the extant Center for Applied and Competitive Technologies to the southeast of the proposed Project site); 2) although the data provided by the CHRIS records search indicates that the surrounding area is sensitive for the presence of prehistoric archaeological sites, the previously recorded resources primarily consist of bedrock milling stations with no associated midden or artifacts; 3) it is unlikely that such sites would be encountered within the proposed Project site as no topographical features such as water sources or bedrock outcrops are present that would suggest an area that may have been attractive to prehistoric inhabitants; 4) results of the study indicate that no built environment structures or associated facilities occupied the proposed Project site since at least the late twentieth century, suggesting that the possibility of buried historic-age archaeological deposits associated with once extant structures is considered low; and 6) no cultural material was identified within the proposed Project site as a result of the pedestrian survey as the site has been subject to repeated disking/tilling that has likely disturbed the upper 18 inches of soil. Given these factors, the proposed Project site is considered relatively low sensitivity for the presence of cultural resources.

## Management Recommendations

Dudek recommends the following management strategies be completed as part of the environmental review process in order to ensure proper treatment of any unknown cultural resources that may be encountered as a result of Project construction.

Although the overall potential for archaeological resources to exist within the proposed Project site is considered low, it is still possible that unknown intact archaeological resources could be encountered subsurface during ground disturbing activities within native soils. Dudek recommends that if a geotechnical investigation be conducted within the proposed Project site prior to Project implementation, that the results of the study be reviewed to inform on the potential for intact buried cultural deposits to be encountered below the assumed upper 18 inches of soil previously disturbed by routine plowing. In consideration of the general cultural sensitivity in the vicinity of the proposed Project site, Dudek further recommends the following measures to ensure proper treatment of any unknown archaeological resources that may be encountered as a result of Project construction. These measures would ensure the proper treatment of any archaeological resources and human remains encountered during ground disturbing activities. With the proper implementation of the prescribed measures, the potential impact to archaeological resources and human remains is considered to be less then significant.

**Workers Environmental Awareness Program (WEAP) Training.** All construction personnel and monitors who are not trained archaeologists shall be briefed regarding inadvertent discoveries of archaeological or tribal cultural resources prior to the start of construction activities. A basic presentation and handout or pamphlet shall be prepared in order to ensure proper identification and treatment of inadvertent discoveries of archaeological or tribal cultural resources. The purpose of the Workers Environmental Awareness Program (WEAP) training is to provide specific details on the kinds of archaeological and tribal cultural materials that may be identified during construction of the project and explain the importance of and legal basis for the protection of significant archaeological and tribal cultural resources. Each worker shall also be trained in the proper procedures to follow in the event that archaeological, tribal cultural resources or human remains are uncovered during ground disturbing activities. These procedures include but are not limited to work curtailment or redirection, and the immediate contact of the site supervisor and archaeological monitor. Pursuant to MM-TCR-1, all interested tribes who have requested and engaged in formal tribal consultation for the Norco College CHP+K Building Project, pursuant to AB-52, will be invited to participate in the WEAP training and will be given the opportunity to speak regarding tribal cultural resources.

**Retention of an On-Call Archaeologist.** A qualified archaeologist shall be retained and on-call to conduct spot monitoring and respond to and address any inadvertent discoveries identified during ground disturbing activities whether within disturbed, imported or native soils. In the event of an inadvertent discovery of archaeological or tribal cultural resources, a qualified archaeologist shall be retained to monitor all initial ground disturbance. Initial ground disturbance is defined as initial construction-related earth moving of sediments from their place of deposition. As it pertains to archaeological monitoring, this definition excludes movement of sediments after they have been initially disturbed or displaced by current project-related construction. A qualified archaeological principal investigator, meeting the Secretary of the Interior's Professional Qualification Standards, shall oversee and adjust monitoring efforts as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to further encounter cultural deposits or material. More than one monitor may be required if multiple areas within the Project site are simultaneously exposed to initial ground disturbance as previously defined in these mitigation measures causing monitoring to be hindered by the distance of the simultaneous activities. The need for an additional monitor shall be made by the qualified archaeological principal investigator, meeting the Secretary of the Interior's Professional Qualification Standards. The archaeological monitor shall be responsible for maintaining daily monitoring logs for those days monitoring occurs.

If monitoring is conducted, an archaeological monitoring report shall be prepared within 60 days following completion of ground disturbance and submitted to the District for review. This report shall document compliance with approved mitigation, document the monitoring efforts, and include an appendix with daily monitoring logs. The final report shall be submitted to the South Central Coast Information Center (SCCIC) for inclusion on the CHRIS database and interested consulting tribes.

**Inadvertent Discovery of Archaeological Resources.** In the event that potential prehistoric or historic-era archaeological resources and/or tribal cultural resources (sites, features, or artifacts) are exposed during construction activities for the project, all construction work occurring not less than 50 feet of the find shall immediately stop and a qualified archaeologist must be notified immediately to assess the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under the California Environmental Quality Act, the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work (e.g., preparation of an archaeological treatment plan, testing, or data recovery) may be warranted. If Native American resources are discovered or are suspected, each of the consulting tribes for the Project will also be notified.

**Inadvertent Discovery of Human Remains.** In the event that human remains are inadvertently encountered during construction activities, the remains and associated resources shall be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the Project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined, within 2 working days of notification of the discovery, if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC within 24 hours. The NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant must then provide recommendations within 48 hours of being granted access to the site. The most likely descendant would then determine, in consultation with the property owner, the disposition of the human remains.

Please do not hesitate to contact us should you have any questions about this report.

Sincerely,

Linda Kry, BA, RA
Archaeologist
**DUDEK**
lkry@dudek.com

Adam Giacinto, MA, RPA
Archaeologist
**DUDEK**
agiacinto@dudek.com

*cc: Caitlin Munson, Rachel Struglia, Micah Hale, and Dudek*

*Att: Attachment A: Figures*
*Attachment B: (Confidential) EIC Records Search Results*
*Attachment C: NAHC SLF Search Results*

# References

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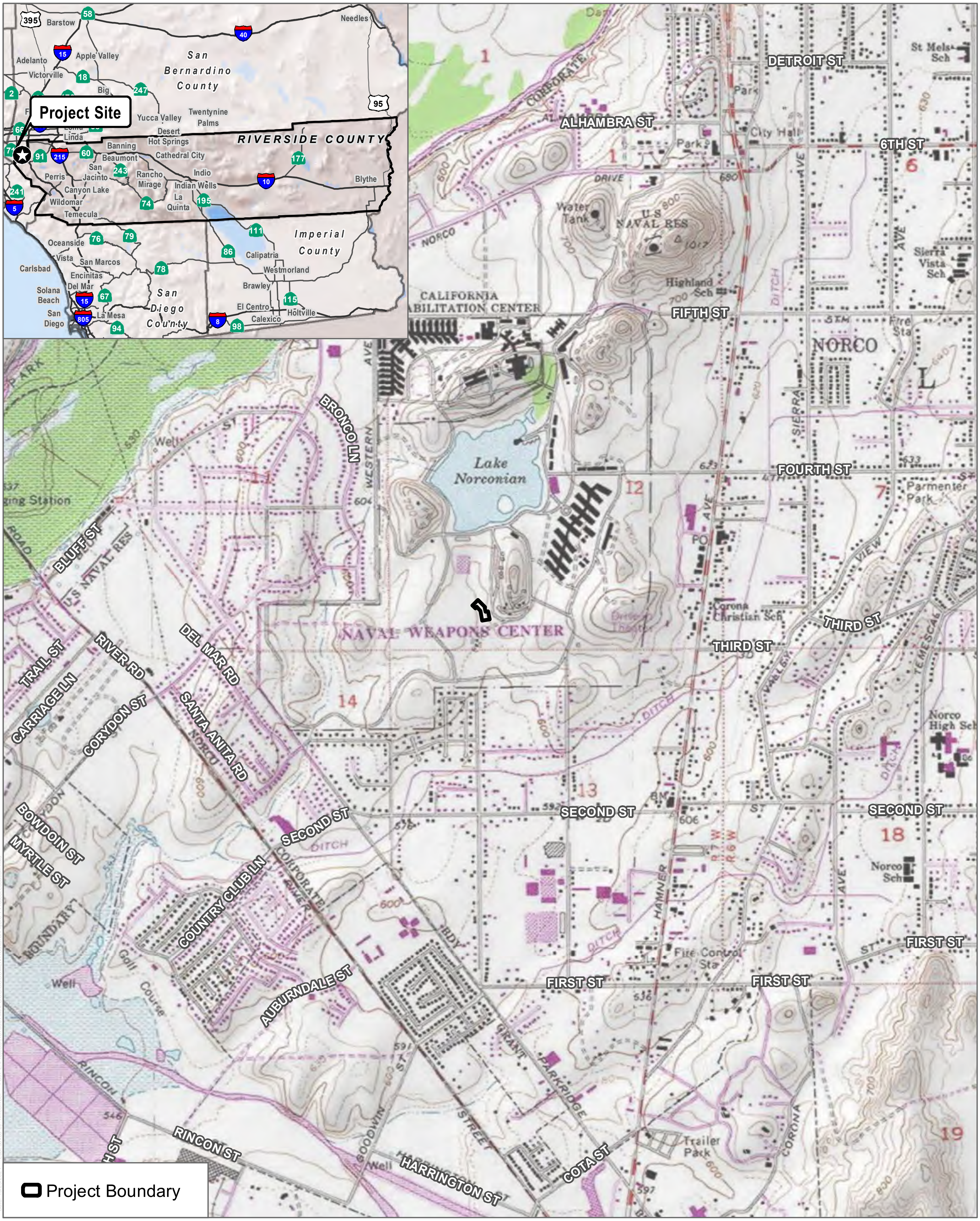
# Attachment A

## Figures



SOURCE: USA Topo Maps, Open Street Maps 2021

0 1,000 2,000 Feet

**FIGURE 1**

Project Location

Norco College Center for Human Performance and Kinesiology Building Project

SOURCE: USA Topo Maps, Open Street Maps 2021

**FIGURE 2**

Project Site

Norco College Center for Human Performance and Kinesiology Building Project

# Attachment B (Confidential)

## EIC Records Search Results

# Attachment C

## NAHC SLF Search Results

**STATE OF CALIFORNIA** **Gavin Newsom, *Governor***

# NATIVE AMERICAN HERITAGE COMMISSION

December 14, 2021

Linda Kry
DUDEK

Via Email to: lkry@dudek.com

**Re: Norco College Center for Human Performance and Kinesiology Project, Riverside County**

Dear Ms. Kry:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
*Cultural Resources Analyst*

Attachment

**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

# Appendix C

## Subsurface Investigation Report

## Subsurface Investigation Report

# Norco College
# Center for Human Performance + Kinesiology Project
# Norco, California

**JULY 27, 2023**

*Prepared for:*

**RIVERSIDE COMMUNITY COLLEGE DISTRICT**
3801 Market Street
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*Prepared by:*

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SUSAN C SMITH
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Hugh McManus, PG
Geologist

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## FIGURES

## APPENDICES

# Acronyms and Abbreviations

| Acronym/Abbreviation | Definition |
|---|---|
| amsl | above mean sea level |
| APN | Assessor's Parcel Number |
| AST | aboveground storage tank |
| bgs | below ground surface |
| CA MCL | California Maximum Contaminant Level |
| DTSC | Department of Toxic Substances Control |
| DTSC-SL | Department of Toxic Substances Control – Screening Levels |
| ESL | Environmental Screening Levels |
| EPA | Environmental Protection Agency |
| FLTAC | Fleet Analysis Center, Corona Annex |
| HSP | Health and Safety Plan |
| IAS | Initial Assessment Study |
| NTU | nephelometric turbidity units |
| Project | Center for Human Performance + Kinesiology Project |
| RCCD | Riverside Community College District |
| RPD | relative percent difference |
| SFBRWQCB | San Francisco Bay Regional Water Quality Control Board |
| TPH | total petroleum hydrocarbon |
| UXO | unexploded ordnance |
| VOC | volatile organic compound |

# 1 Introduction

This Subsurface Investigation has been prepared by Dudek on behalf of the Riverside Community College District (RCCD) for the Center for Human Performance + Kinesiology Project (Project) located on the western portion of the Norco College campus. The Norco College property (Property) is located on two contiguous parcels with Assessor Parcel Numbers (APN) 129-210-005 and APN 126-020-002, and is addressed as 2001 Third Street in Norco, California (Figure 1, Project Location).

In 2016, a Land Use Covenant was placed on the entire Property (minus the Kennedy Middle College High School) due to the former military ownership and use. The Land Use Covenant presents restrictions for future Property use without prior approval. The data presented in this Subsurface Investigation Report is intended to satisfy the Department of Toxic Substances Control (DTSC) requirements as presented in the Land Use Covenant for the proposed Project construction.

The subsurface investigation activities were performed in January 2022. The Subsurface Investigation Report was submitted to the DTSC on February 18, 2022. The DTSC responded with comments on April 14, 2022. A revised Subsurface Investigation Report was submitted on July 12, 2022. The DTSC responded with comments on August 8, 2022; a revised report was submitted on January 14, 2023. The DTSC responded with comments on March 9, 2023; revisions are incorporated into this revised report submitted July 27, 2023.

## 1.1 Purpose

The purpose of the soil, soil vapor, and groundwater sampling was to evaluate potential subsurface impacts related to the former military activities on the Property prior to construction and to fulfill the requirements of the Land Use Covenant.

## 1.2 Scope of Work

This Subsurface Investigation Report consists of the following:

- A brief description of the work completed to date and a summary of the findings of the previous environmental investigations
- Procedures and laboratory results for the installation and sampling of seven temporary soil vapor probes
- Procedures and laboratory results for the installation and sampling of two temporary groundwater monitoring wells
- Presentation and discussion of the soil vapor, soil, and groundwater samples results
- A discussion of the quality assurance and quality control procedures followed during sampling and analysis
- Modifications made to the work plan based on field conditions
- A Conceptual Site Model and Screening Level Evaluation
- A summary and conclusion of the sample results

# 2 Site Background

## 2.1 Location

The Property consists of approximately 141 acres of land on APN 129-210-005 (northern parcel) and APN 126-020-002 (southern parcel). The Project is situated on approximately 0.81 acres of land located on the northern parcel (APN 129-210-005; Figure 2). The Project is an approximately 55,000 gross square-foot two-story structure planned for construction on the western portion of the Norco College campus (Figure 2).

## 2.2 Site History

The Property, currently owned by RCCD, was previously part of a large resort that was opened in 1928 and closed during the Great Depression in the 1930s. The land was sold to the U.S. Navy in 1941 and was converted into a naval hospital, which operated from 1941 to 1949, then reopened in 1951 and operated through 1957. The Naval Ordnance Laboratory Corona took over operations of the Property and parts of the former hospital in 1953 during the same time the hospital was still in operation. At the peak of operations, the Corona Annex (also referred to as the Norco Installation; U.S. Naval Ordnance Laboratory, Corona; and Fleet Analysis Center, Corona) encompassed approximately 714 acres, a portion of which now includes the Property. Operations that took place on the Property were reported to include the following:

- A golf course during resort operation (1920s to 1930s)
- A hospital incinerator and landfill (1940s with end date unknown)
- Small ordnance burn piles (unknown dates but during the military occupation)
- Ordnance and explosives testing, reportedly inside buildings (1950s to 1970s)

Historical site features near the Project include a former bunker, an aboveground storage tank (AST), and a burn dump (Figure 1). A detailed investigation summary can be found in the Norco College Hazard Evaluation (Dudek 2021).

The U.S. Navy transferred surplus land (including present-day Norco College) to the State of California in the early 1980s. The State of California subsequently transferred approximately 141 acres of land to RCCD in 1984 for the construction of a college campus. An approximately 6.45-acre portion of the Property was leased to the Corona–Norco Unified School District for the construction of the Kennedy Middle College High School in 2006. Summaries of previous investigations related to the Property areas near the proposed building are presented in Section 2.3.

## 2.3 Previous Investigations

Multiple site investigations have been conducted at the Property since it was transferred to the RCCD. Several site investigations were conducted in 1989 and 1990, prior to the construction of Norco College. The investigations conducted in proximity to the Project site are summarized below.

### 2.3.1 Surface, Subsurface, and Geophysical Surveys, 1989

Site 26 was reportedly an area where large materials that did not fit into the incinerator were burned; small ordnance burn piles were located here as well. A geophysical survey conducted in 1989 (Kleinfelder 1989) did not identify any changes in subsurface conductivity, indicating no apparent changes or subsurface features at Site 26. Trenches were dug 6 to 8 feet bgs in the suspected landfill and burn pit areas at Site 26. Only clean, native soils were observed in the trenches; therefore, no soil samples were collected. There are ordnance bunkers in the area and, based on historic maps, “explosives testing” was conducted in this area. While test pitting was performed in this area, Dudek was not able to locate information about any samples collected from the Site 26 area. Dudek was unable to confirm that soil samples were collected for laboratory analysis from this portion of the Property.

While initial investigations categorized the Norco installation (including the Property) as a level 1 (high) priority for unexploded ordnances, these ratings were later reduced to level 5 (low) priority following extensive development and excavation of surrounding areas of the former installation with no evidence of unexploded ordnance (UXO) or other ordnance. Level 5 generally indicates no additional Department of Defense action is necessary regarding UXO.

### 2.3.2 Summary of Site Assessments, 1990

In July 1989, clearing and grubbing operations were performed on the property, which might have included the area near the proposed building. During grubbing operations in July 1989, ordnance storage bunkers and pads were excavated (Kleinfelder 1990). Soil samples were reportedly collected from suspected impacted areas identified during grubbing operations and were analyzed for metals, organochlorine pesticides, and polychlorinated biphenyls. Arsenic, lead, and cadmium were detected in the soil samples but were determined to be non-hazardous. Dudek was not able to locate information about any samples or analytical results collected during the clearing and grubbing operations.

A former waste oil AST, located in the central portion of the Property, was removed in July 1989. A summary report for the Property indicated that impacted soils were encountered during decommissioning of the AST (Kleinfelder 1990). Three soil samples that were reportedly collected from the vicinity of the AST were analyzed for TPH. The results ranged between 120 milligrams per kilogram (mg/Kg) and 15,000 mg/Kg. The soil samples exceeded regulatory screening levels and the impacted soil was reportedly excavated and transported off-site in 1989. Dudek was not able to locate reports that presented a summary of laboratory analytical reports related to the AST investigation.

### 2.3.3 Unexploded Ordnance

While evaluations for unexploded ordnance (UXO) have not been performed on the Property itself, several evaluations have been performed for the Corona Annex which includes the Property. Between the Corona Annex evaluations which did not identify the potential for UXO and the extensive earthmoving activities during the construction of the college, including the Project area, it is unlikely that UXO is a concern for the Property. The explosives used (primarily black powder) and UXO evaluation report summaries are presented below.

### 2.3.3.1 Initial Assessment Study, 1985

An Initial Assessment Study (IAS) was prepared by the Naval Energy and Environmental Support Activity for the Property in February 1985 (Naval Energy 1985). The IAS provided information about the site history and the former operations on the Property. According to the IAS, the operations at the Fleet Analysis Center, Corona Annex (FLTAC) included the "evaluation of performance, reliability, readiness and effectiveness of missile weapons systems, subsystems and assemblies, and associated test equipment and checkout systems." Additional information presented in the report indicated that the U.S. Naval Ordnance Laboratory, Corona was located on the Property in the mid-1950s to perform "research in chemistry, infrared radiation, and very low-frequency communication." Additional activities included missile fuse research and development, data interpretation, and other supporting efforts.

The fuse department reportedly designed as tested the electronic components of fuses inside building chambers; some of the fuses contained small amounts of ordnance but no ordnance testing was performed. The report indicated that incinerators were used on the Property from the 1940s until 1970. The incinerator (located on the southeastern portion of the Property) was used to burn waste from the hospital and ordnance lab; all dumpstered waste was also burned in the incinerator until approximately 1967. A burn pit near Site 26 was also used to burn oversized waste and ordnance (smokeless powder, ammonium picrate, and signal flares); approximately 1,000 cubic yards of ash was also deposited at Site 26.

### 2.3.3.2 Perchlorate Source Evaluation Report, 2005

A perchlorate source evaluation was conducted on the Norco Installation, located north of the Property, in 2005 (Science Applications 2005). A research study was conducted on the Norco Installation to determine if it could be a source of perchlorate in groundwater since numerous domestic wells within 5 miles have been impacted by perchlorate. Based on the operational history of the site, it was determined explosives at the Norco Installation used black powder that did not contain perchlorate, and therefore subsurface investigations for perchlorate were not recommended. The perchlorate investigation report also discussed the potential for unexploded ordnance at the Norco Installation (including the Property). The following information was found in the report with regard to the Property:

- While initial investigations categorized the Norco Installation (including the Property) as a level 1 (high) priority for UXO, these ratings were later reduced to level 5 (low) priority following extensive development and excavation of surrounding areas of the former installation with no evidence of UXO or other ordnance. Level 5 generally indicates no additional DOD action is necessary regarding UXO.

- The northern burn pit area (Site 26) near the former ordnance bunkers was reportedly used to burn larger materials, such as pallets, that weren't burned at the incinerator (now the Kennedy School). Low order ordnance, including smokeless powder, black powder, ammonium picrate, and signal flares were also burned in the ordnance burn pits. Reportedly, ordnance bunkers onsite were never used for ordnance storage.

# 3 Environmental Setting

## 3.1 Site Topography

The Property is located approximately 0.25 miles south of Lake Norconian and 2 miles east of the Santa Ana River. The Property generally slopes down toward the south-southwest. Elevations at the Property range between approximately 725 feet above mean sea level (amsl) in the northeast and 600 feet amsl in the south (Google Earth 2022). Elevations at the Property range between approximately 640 feet amsl in the northeast and 613 feet amsl in the southwest (Google Earth 2022).

## 3.2 Site Geology and Soil Type

The Property is located within the Peninsular Ranges Geomorphic Province (CDC 2002). The Property lies between two fault zones (Elsinore and San Jacinto Fault zones) that create the Perris Block, a structural block of the Peninsular Ranges Batholith (USGS 2002). The Property reportedly consists of old alluvial fan sands underlain by granitic rocks of the Peninsular Ranges batholith (USGS 2002). According to the U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey online application (USDA 2021), the Project site is primarily underlain by sandy loam and fine sand.

## 3.3 Site Hydrogeologic Setting

The Project site is located within the Temescal Subbasin of the Upper Santa Ana River Valley Groundwater Basin (DWR 2006). The water-bearing formations within the Temescal Subbasin are primarily stream-deposited alluvium (DWR 2006).

# 4 Subsurface Investigation

## 4.1 Pre-Sampling Activities

All work was conducted under a site-specific Health and Safety Plan (HSP). The HSP was prepared to protect the health and safety of the investigative team and the general public during sampling activities. The HSP assessed potential site-related hazards and provided safe operating procedures for personnel and equipment. Site personnel were briefed on the contents of the HSP at the beginning of each sampling event.

A ticket was filed with Underground Service Alert of Southern California on January 11, 2022 (Ticket Number A220110636-00A) to notify members to identify underground utilities near the proposed boring locations. No underground utilities were identified beneath the proposed boring locations by the public utility companies.

ULS Service Corp. of San Diego, California, performed private underground location services around the Project site on January 12, 2022. Underground utilities were identified by ULS near the proposed boring locations and modifications to the original sampling locations proposed in the work plan were made to avoid underground utilities. Borehole location modifications and the rationale for relocation are included in Section 7. The ULS report is included in Appendix A.

Per the Riverside County Department of Public Health, permits are not required for borings that are destroyed within 24-hours of drilling. As such, no permits were obtained for the soil vapor borings or temporary groundwater wells.

## 4.2 Soil Vapor and Soil Sample Borehole Drilling

On January 15, 2022, seven boreholes were advanced by Millennium Environmental using a Geoprobe 7822DT track mounted direct push technology rig to depths ranging from 10 feet below ground surface (bgs) to 15 feet bgs. Soil borings were advanced with a 2.25-inch outside diameter tool equipped with a plastic sampling sleeve. The soil vapor borehole locations are included in Figure 2. Soil vapor borehole locations include five boreholes surrounding the Project footprint (S1 through S5) and two boreholes within the footprint of the Project (S6 and S7).

The Millennium Environmental drill rig operator attempted to advance each boring to 15 feet bgs. The operator experienced subsurface conditions at roughly 8 feet bgs to 10 feet bgs that limited the advancement of borehole locations S2 and S3 to 10 feet bgs. The location of S2 was moved closer to the Project site after refusal (dense subsurface material) was encountered at roughly 3 feet bgs in multiple attempts near the original location (which was west of the final location) outlined in the Work Plan. The operator was able to advance the remaining boreholes to the planned depth of 15 feet bgs.

Soil sampling procedures for boreholes drilled with the direct push method are included in Section 4.5. Soil vapor probe construction and sampling procedures are included in Section 4.6.

Waste generated during borehole drilling was placed in a labeled steel drum and stored on the Property.

## 4.3 Groundwater and Soil Sample Borehole Drilling

On January 19, 2022 and January 20, 2022, two boreholes were advanced by BC2 Environmental using a hollow stem auger drill rig to 45 feet bgs. Boreholes were advanced with an 8-inch outside diameter auger. Soil samples were collected from the borehole using an 18-inch split spoon sampler lined with three 6-inch stainless steel sampling sleeves. The split spoon sampler was driven into the hollow auger every 5-feet using a line weight.

Both boreholes (S8 and S9) were located within the footprint of the proposed structure. Borehole S8 is located on the north end of the Project footprint and borehole S9 is located on the south end of the Project footprint (Figure 2).

Soil sampling procedures for boreholes drilled with the hollow stem auger rig are included in Section 4.5. The temporary groundwater well construction details and sampling procedures are included in Section 4.7

Waste generated during borehole drilling was placed in labeled steel drums and stored on the Property.

## 4.4 Lithology

Lithology was characterized at 5-foot intervals by a Dudek geologist according to ASTM D-2488 (visual-manual procedure), and color was characterized using a Munsell Coil Color Chart. A portable photoionization detector (PID) and digital ratemeter/scaler were used to screen soil samples in the field at 5-foot intervals. No readings above background were recorded for VOCs or radiation.

Lithology encountered consisted of silty clay, poorly graded sand, well graded sand, and small sections of clay and silt. Silty sand and poorly graded sand predominantly made up the lithology in the shallow subsurface around the Project site. A dense material, which crumbled in field samples, was encountered below the upper alluvial material and was described in field samples as well graded and poorly graded sand. This dense material appeared to be shallowest towards the southwest of the Project site at locations S2 and S3. Beneath the denser material was loose well graded sand and silty sand. This loose material was encountered in both boreholes drilled to 45 feet bgs with the hollow stem auger drill rig. Groundwater was encountered in loose alluvial material at roughly 35 to 40 feet bgs.

## 4.5 Soil Sampling

A total of 45 soil samples were collected during the subsurface investigation. Twenty soil samples were collected during direct push drilling (including one duplicate sample at the S5 location at a depth of 5 feet bgs) and 18 soil samples were collected during hollow stem auger drilling.

Soil samples were sealed, capped, labeled, placed in sealable bags, logged on a chain-of-custody form, and placed in an ice-chilled cooler. Soil samples were submitted to Enthalpy Analytical of Orange, California and were analyzed for the following constituents:

- Total petroleum hydrocarbons (TPH) carbon chain by EPA Method 8015M
- Volatile Organic Compounds (VOCs) and TPH as gasoline by EPA Method 8260B
- Title 22 metals by EPA Method 6010B/7471A
- Perchlorate by EPA Method 314.1 (for samples collected at S4 only)

Soil was brought to the surface in 5-foot long plastic sleeves during direct push drilling and in three 6-inch stainless-steel sampling sleeves during hollow stem auger drilling.

### 4.5.1 Direct Push Sampling

During direct push sampling, plastic sleeves were cut into 6-inch sections and were sealed, capped, labeled, and placed in a sealable plastic bag. Terracore sample kits were used to collect and preserve additional samples to be analyzed for volatile constituents directly from the plastic sleeves. Soil samples were collected at 0.5 feet bgs, 5 feet bgs, 10 feet bgs, and at 15 feet bgs, except for the locations S2 and S3. Due to refusal, the deepest soil samples collected from locations S2 and S3 were from 8 feet bgs and 10 feet bgs, respectively.

### 4.5.2 Hollow Stem Auger Sampling

During hollow stem auger sampling, one 6-inch stainless steel sampling sleeve was sealed, capped, labeled, and placed in a sealable plastic bag. Terracore sample kits were used to collect and preserve additional samples to be analyzed for volatile constituents directly from the remaining stainless steel sleeve. Samples were collected at 5-foot intervals to 45 feet bgs.

## 4.6 Soil Vapor Probe Construction and Sampling

Soil vapor sampling probes were constructed at two depths in each of the seven boreholes. Soil vapor probes were installed at 5 feet bgs and 10 feet bgs in boreholes S2 and S3. Soil vapor probes were installed at 5 feet bgs and 15 feet bgs in boreholes S1, S4, S5, S6, and S7. All annular materials were placed using a tremie pipe. After reaching total depth, small-diameter tubing (1/4 inch) was connected to the soil vapor probe sample inlet and lowered into each borehole. The probes were constructed following guidance outlined in the Advisory Active Soil Gas Investigation document (California Environmental Protection Agency et al. 2015). Cemex #3 sand was placed 6-inches above and below the soil vapor probe sample inlet (1 foot of sand). One foot of dry bentonite was placed above the Cemex #3 sand. Hydrated bentonite crumbles were placed above the dry bentonite. This construction process was repeated for the upper soil vapor probe installation. Each soil vapor probe was allowed to equilibrate for 2 hours before purging. Soil vapor probe construction details are included in Appendix B, Table 1.

Each soil vapor probe was purged at a rate of 200 milliliters per minute (mL/min) using a portable vacuum pump connected to a pressure gauge for shut-in testing. Three volumes were removed from each probe before sample collection. After purging, soil vapor samples were collected using a glass gas-tight syringe. A tracer sample of pentane, heptane, and hexane was placed near the sampling container during sample collection to detect leaks. Soil vapor samples were collected by a technician from Jones Environmental Laboratories and analyzed on-site using the Jones Environmental mobile lab equipment. One duplicate sample was collected at sample location S4 at 5 feet bgs. Soil vapor samples were analyzed for the following constituents:

- TPH gasoline range organics (TPHg) by EPA Method 8260B
- VOCs by EPA Method 8260B

After sample collection, the tubing was removed from the borehole and the hydrated bentonite at the surface was covered with native soil.

## 4.7 Temporary Groundwater Well Construction and Sampling

Temporary groundwater wells were constructed in boreholes drilled to 45 feet bgs with the hollow stem auger drill rig. The temporary groundwater well at the S8 location was constructed and sampled on January 19, 2022. The temporary groundwater well at the S9 location was constructed and sampled on January 20, 2022.

A 2-inch temporary PVC well casing was placed within the hollow stem of the auger to a depth of 45 feet bgs. Five feet of 0.01-inch screen with a plastic end cap was placed from 45 feet bgs to 40 feet bgs. Blank casing was installed above the screen from 40 feet bgs to ground surface. The casing was joined at watertight threaded end joints. Temporary groundwater well construction details are included in Appendix B, Table 2. After the temporary casing was installed, 10 feet of auger was removed from the borehole to allow groundwater to flow into the casing. No filter pack was placed during temporary well construction. Depth to water was measured in each temporary well using a water level meter shortly after temporary well construction. On January 19, 2022, depth to water in the S8 temporary well measured approximately 35 feet bgs. On January 20, 2021, depth to water in the S9 temporary well measured approximately 41.5 feet bgs.

The temporary well at the S8 borehole location was developed using a bailer to remove sediment and with a submersible Proactive SS Monsoon DC pump and controller. The temporary groundwater well at the S9 borehole location was developed using a bailer only due to rapid drawdown which was not capable of sustaining groundwater flow with a pump. Turbidity was recorded during development using a LaMotte portable turbidity meter.

Groundwater was sampled in the temporary well at S8 using a submersible Proactive SS Monsoon pump at a low flow rate. Groundwater was sampled in the temporary well at S9 using a new disposable bailer. All sampling equipment was decontaminated before sample collection. Samples collected for metals were field filtered using a new 0.40-micron filter.

Three groundwater samples were collected from the temporary groundwater wells (one from each well and one duplicate collected in the S8 location).

Groundwater samples were labeled, placed in sealable bags, logged on a chain-of-custody form, and placed in a cooler on ice by a Dudek geologist. Groundwater samples were submitted to Enthalpy Analytical Laboratory for analysis using a standard turn-around time. Groundwater samples were analyzed for the following constituents:

- TPH carbon chain by EPA Method 8015M
- VOCs by EPA Method 8260B
- Title 22 metals by EPA Method 6010B/7471A (dissolved)
- Perchlorate by EPA Method 314.1

After the collection of groundwater samples in each temporary groundwater well, the casing was removed from the borehole. BC2 pumped neat cement grout from the bottom of the borehole to ground surface using the augers as a tremie pipe. The grout was brought to the surface and covered with native material.

# 5 Subsurface Investigation Results

## 5.1 Soil Sample Results

The laboratory analytical sample results for soil samples were compared to EPA Regional Screening Levels (RSLs) and DTSC-Modified Screening Levels (SLs). The EPA RSLs were updated as of November 2022 (EPA 2022). DTSC-Modified SLs are discussed in Human Health Risk Assessment Note Number 3 (DTSC HERO 2022). The RSLs and DTSC-Modified SLs referenced herein are as follows:

- EPA RSLs (November 2022) Resident Soil
- EPA RSLs (November 2022) Industrial Soil
- DTSC-Modified SLs (May 2022) Screening Level for Residential Soil
- DTSC-Modified SLs (May 2022) Screening Level for Commercial/Industrial Soil

Laboratory reports for soil samples are included in Appendix D. A summary of the laboratory report for soil samples is included in Appendix B, Tables 3 through 6.

### 5.1.1 TPH

No TPH was detected above the laboratory reporting limits in any of the soil samples. The laboratory reporting limits for gasoline range organics (C4 through C13), diesel range organics (C13 through C22), and oil range organics (C23 through C40) were <2.0 to <2.8 mg/kg, <9.9 to <10 mg/kg, and <20 mg/kg, respectively. A summary of the laboratory results for TPH is included in Appendix B, Table 3.

### 5.1.2 VOCs

No VOCs were detected above the laboratory reporting limits in any of the soil samples. A summary of the soil sample laboratory results for VOCs is included in Appendix B, Table 4.

### 5.1.3 Metals

Twelve different metals were detected above the laboratory reporting limits in the soil samples. Detected metals were antimony, arsenic, barium, cadmium, chromium, cobalt, copper, lead, nickel, silver, vanadium, and zinc.

Lead was detected at sample location S1 at a depth of 5 feet bgs at a concentration of 180 mg/Kg, which is above the DTSC-Modified SL for residential soils (80 mg/kg) but below the DTSC-Modified SL for commercial/industrial soil (500 mg/kg). This sample location is north of the proposed Project building. Samples collected from 0.5 feet and 10 feet below ground surface in the same boring contained 13 mg/kg and 19 mg/kg lead, which is below the screening levels.

Arsenic was detected in all nine sample locations with a maximum concentration of 4.8 mg/Kg at sample location S1, which is above the RSLs, but below the upper-bound background concentration found in southern California soils (12 mg/kg), based on DTSC HERO Note 11, and is therefore acceptable.

All other metal concentrations detected in soil were below the RSLs and DTSC-Modified SLs. A summary of the laboratory results for soil samples analyzed for metals is included in Appendix B, Table 5.

### 5.1.4 Perchlorate

Soil samples at location S4 were analyzed for perchlorate. Perchlorate was not detected at or above the laboratory reporting limit in any of the samples analyzed. A summary of the soil sample laboratory results for perchlorate is included in Appendix B, Table 6.

## 5.2 Soil Vapor Sample Results

The laboratory analytical sample results for soil vapor samples are compared to soil vapor screening levels. The screening levels for soil vapor were calculated by dividing the EPA RSLs and the DTSC-Modified SLs for commercial/industrial indoor air by the soil vapor to ambient air attenuation factor. The DTSC, in their final vapor intrusion guidance document, uses an attenuation factor for soil vapor to ambient air of 0.001 (DTSC, 2011). A more conservative attenuation factor of 0.03 was proposed by the U.S. Environmental Protection Agency (USEPA, 2015). This more conservative attenuation factor was proposed in a draft guidance document presented by the RWQCB and DTSC in 2020 (DTSC and SWRCB, 2020). However, the USEPA attenuation factor of 0.03 is based on several building and climate factors that generally do not apply to southern California buildings. The DTSC is in the process of finalizing a study on attenuation factors based on buildings in California. Initial, preliminary findings of the DTSC attenuation factor study, presented at the California Land Recycling Conference in September 2020, were that the attenuation factors calculated by comparing measured indoor air concentrations to measured soil vapor concentrations were more similar to the 2011 DTSC attenuation factor of 0.001. Additionally, given that a new building will be constructed on the site, the soil vapor screening level using an attenuation factor of 0.001 would be the applicable criteria to use for a future building scenario at the Project site as it is consistent with recent experience at sites where future buildings are proposed.

The soil vapor sample results and screening levels, based on both the attenuation factors of 0.03 and 0.001 are presented in Appendix B, Table 7. Select constituents exceeding screening levels are also presented on Figures 3 and 4.

### 5.2.1 TPH as Gasoline

TPHg (C4 through C12) was detected above the laboratory reporting limit in the five-foot samples from four locations. None of the deeper samples, collected from 15 feet bgs, contained detectable concentrations of TPHg. The detections in the five foot samples were 30,600 µg/m$^3$, 34,900 µg/m$^3$, 35,400 µg/m$^3$, and 418,000 µg/m$^3$; the concentrations detected beneath the proposed building location were 30,600 µg/m$^3$ and 35,400 µg/m$^3$. The concentrations detected beneath the proposed building would be more appropriate for use in a vapor intrusion evaluation than the samples collected away from the proposed building footprint. A screening-level risk evaluation to address potential vapor intrusion issues is presented in Section 8.6. There are no RSLs or DTSC-Modified SLs for TPHg; however, Regional Water Quality Control Board environmental screening levels (ESLs; SFBRWQCB, 2019) for

TPHg in soil gas are used for comparison. The ESLs are calculated using the more conservative attenuation factor of 0.03. The TPHg concentrations were all below the commercial/industrial ESL. The detections of TPHg in the five foot samples from S4 through S7 exceeded the residential soil gas ESL. Calculation of fractionated TPHg (GRO Aliphatic/Aromatic) was completed by assuming a ratio of 75% GRO Aliphatic to 25% GRO Aromatic in each bulk TPHg detection for comparison with available RSLs. The TPHg ESLs and GRO RSLs are presented with the data in Table 7.

It should be noted that while elevated concentrations of TPH were detected in the soil gas in four site samples, no TPH was detected in soil samples collected from those same locations and depths at the site.

### 5.2.2 VOCs

Benzene was detected at concentrations ranging from 11 μg/m$^3$ to 42 μg/m$^3$ in soil vapor samples from four locations; no benzene was detected at locations S1, S2, or S3. The concentrations detected from 5 and 15 feet bgs below the building also ranged from 11 μg/m$^3$ to 42 μg/m$^3$. While the benzene concentrations were all within the same order of magnitude, slightly higher concentrations were detected in the 15 foot samples compared to the 5 foot samples (e.g., 42 μg/m$^3$ at 15 feet compared to 16 μg/m$^3$ at 5 feet bgs). The benzene concentrations were all below the commercial/industrial and residential screening levels using an attenuation factor of 0.001 (the more appropriate screening level for the proposed building). Some of the sample concentrations exceeded the screening levels using the more conservative 0.03 attenuation factor.

Chloroform was detected above the laboratory reporting limit in the five-foot samples from locations S4 and S7. None of the deeper samples, collected from 15 feet bgs, contained detectable concentrations of chloroform. The highest concentration of chloroform, 30 μg/m$^3$, was detected at sample location S4 at 5 feet bgs. Chloroform was detected in one sample collected beneath the future building footprint at S7 at 17 μg/m$^3$. The chloroform concentrations were all below the commercial/industrial and residential screening levels using an attenuation factor of 0.001 (the more appropriate screening level for the proposed building). The sample concentrations from S4 and S7 exceeded the screening levels using the more conservative 0.03 attenuation factor. Chloroform was not detected in any of the other soil vapor samples at or above the laboratory reporting limit.

Tetrachloroethene (PCE) was detected above the laboratory reporting limit in the 5 and 15 foot samples from locations S4 and S5. While the PCE concentrations were all within the same order of magnitude, slightly higher concentrations were detected in the 5 foot samples compared to the 15 foot samples (e.g., 49 μg/m$^3$ at 5 feet compared to 18 μg/m$^3$ at 15 feet bgs). None of the samples collected from beneath the future building footprint contained detectable concentrations of PCE. The highest concentration of PCE, 49 μg/m$^3$, was detected at sample location S4 at 5 feet bgs. The PCE concentrations were all below the commercial/industrial and residential screening levels using an attenuation factor of 0.001 (the more appropriate screening level for the proposed building). Some of the sample concentrations exceeded the residential screening level using the more conservative 0.03 attenuation factor.

Additional VOCs detected in soil vapor samples include ethylebenzene, 4-isopropyltoluene, toluene, trichlorofluoromethane, 1,2,4-trimethylbenzene, m,p-xylene, and o-xylene. These additional detected VOCs were below their respective RSLs and DTSC-Modified SLs.

N-pentane, n-hexane, and n-heptane were used as a tracer during soil vapor sampling for leak detection. None of the tracers were detected in any of the soil vapor samples, indicating no leak was present in the sampling train during sample collection. A discussion about the tracer testing is presented in Section 7.

## 5.3 Groundwater Sample Results

The laboratory analytical sample results for groundwater samples are compared to the following California maximum contaminant limits (CA MCL). Where CA MCLs are not available, Tier 1 ESLs were used for comparison purposes.

Laboratory reports for groundwater samples are included in Appendix D. A summary of detected analytes for groundwater samples are included in Appendix B, Tables 8 through 11.

### 5.3.1 TPH

TPH in all groundwater samples were below the laboratory reporting limits for gasoline range organics (C4 through C13) and oil range organics (C23 through C40). Low concentrations of diesel range organics (C13 through C22) were detected in both groundwater samples. The concentrations were 0.096 µg/L and 0.28 µg/L, well below the Tier 1 ESL for diesel range organics of 100 µg/L. There is no CA MCL established for TPH. A summary of the laboratory results for TPH is included in Appendix B, Table 8.

### 5.3.2 VOCs

VOCs were not detected at or above the laboratory reporting limits in any of the samples analyzed. A summary of the laboratory results for VOCs is included in Appendix B, Table 9.

### 5.3.3 Dissolved Metals

Beryllium, cobalt, molybdenum, and nickel were detected above the laboratory reporting limits but below the CA MCL, with the exception of cobalt, which does not have a CA MCL. A summary of the laboratory results for dissolved metals is included in Appendix B, Table 10.

### 5.3.4 Perchlorate

Perchlorate in all groundwater samples was below the laboratory reporting limit. A summary of the laboratory results for perchlorate is included in Appendix B, Table 11.

# 6 Quality Assurance and Quality Control

Quality assurance and quality control measures were performed in the field by the Dudek geologist, Jones Environmental, and in the laboratory by Enthalpy Analytical. Field measures included PID calibration, shut in testing, leak detection, and duplicate sample collection. Laboratory measures included surrogates, blank samples, laboratory control samples, and matrix spike/matrix spike duplicates. Laboratory analytical reports are presented in Appendix D.

## 6.1 Soil Sampling Quality Assurance/Quality Control

One duplicate soil sample was submitted to Enthalpy Analytical with an anonymous identifier (S8-5); the sample was analyzed for VOCs, TPH, and metals. The relative percent difference (RPD) between the original and duplicate sample was calculated for the constituents that were detected. RPDs were not calculated if one analyte of the duplicate pair if the reported concentration was less than five times the reporting limit. The RPDs for all but two metals ranged from 3% to 15%, within the acceptable range of 0% to 20%. The RPD for barium and zinc were 30% and 21%, respectively, higher than the goal of 0% to 20%.  It should be noted that the duplicate soil samples were collected stratigraphically above the sample collected in S4 at 5 feet from material that appeared litholgically similar. Since the other metals were detected within the acceptable range of 0 to 20%, this likely represents subtle compositional differences and are not an indicator of laboratory quality concerns.  No RPD analysis was conducted on soil samples analyzed for TPH or VOCs because all analytes were below the laboratory reporting limits.

Surrogate spikes were analyzed for each soil sample analyzed for VOCs, TPH, metals, and perchlorate. The recoveries for all of the surrogates were all within their respective laboratory quality control limits.

Laboratory blank samples were analyzed as part of the sampling effort. No TPH, perchlorate, or metals were detected in the laboratory blank samples. Methylene chloride was detected in one of the blank samples analyzed however, two additional blank samples were analyzed.

Laboratory control samples and laboratory control sample duplicates (LCS/LCSD) analyses were conducted by the laboratory as part of the QC procedures. All percent recoveries for the LCSs were within QC limits.

Matrix spike/matrix spike duplicates (MS/MSD) analyses were conducted by the laboratory as part of the QC procedures. MS/MSD percent recoveries and RPD for all analytes were within control limits, with the following exceptions:

- The MS percent recovery for antimony was low in lab reports 456907 and 457099. A MSD was run using the same sample and the RPD was within the acceptable range. The LCS was within range, therefore, the data is deemed acceptable.
- The MSD percent recovery for barium was high in lab report 456907. The LCS and RPD were within the acceptable range, therefore the data is deemed acceptable.
- The MS percent recovery for barium was low in lab report 457099. A MSD was run using the same sample and the MS/MSD RPD was within the acceptable range. The LCS was also within range, therefore the data is deemed acceptable.

- High recoveries were reported in the MSD for chromium, copper, and nickel in the MSD in lab report 457099. The RPDs for the MS/MSD were within the acceptable range. The LCS was also within range, therefore the data is deemed acceptable.
- Methylene chloride was detected in one method blank soil sample in lab report 456907. This constituent was not detected in any of the other laboratory QC samples or in any of the project samples analyzed.

## 6.2 Soil Vapor Sampling Quality Assurance/Quality Control

Field and laboratory quality assurance measures included leak checks, duplicate sample collection and analysis, evaluation of surrogate and spike percent recovery, analysis of blank samples, and analysis of LCS/LCSD samples.

Leak checks were conducted at every sample location during the soil vapor sampling event. The leak check was conducted using a tracer mixture of n-pentane, n-hexane, and n-heptane, which was placed at the tubing-surface interface before sampling to ensure a leak free soil vapor probe. No n-pentane, n-hexane, or n-heptane were detected in any of the soil vapor samples.

One duplicate soil vapor sample was collected form S4-5 and analyzed by Jones Environmental for TPHg and VOCs. The RPD between the original and duplicate sample ranged from 7% to 21%. All detected sample results were within the RPD goal of 0% to 20% except for 4-isoprpyltoluene. The RPD for 4-isoprppyltoluene was calculated at 21%.

As part of the laboratory quality assurance, the surrogates dibromofluoromethane, toluene-d8, and 4-bromofluorobenzene were added to each sample at known concentrations. Analytical results were compared to the known concentration of each surrogate added and reported as a percent recovered. The percent recoveries for all surrogates were within the acceptable range of 60% to 140%, indicating acceptable accuracy. Two laboratory blank samples were analyzed by the laboratory did not contain VOCs above the laboratory reporting limits. The recovery for vinyl chloride in the LCS/LCSD sample was low however, the RPD was within the acceptable range, indicating acceptable quality.

While the RPD for one VOCs slightly exceeded the goal of 0% to 20%, the surrogate recoveries and blank samples were in control, this indicating that the data were of acceptable quality.

## 6.3 Groundwater Sampling Quality Assurance/Quality Control

One duplicate groundwater sample was collected and analyzed for VOCs, TPH carbon chain, and metals by Enthalpy Analytical. RPDs were not calculated if the reported concentration was less than five times the reporting limit. The calculated RPDs were within the range of 0% to 20% for the duplicate pair.

As part of the quality control for the VOC, TPH, metals, and perchlorate analyses, surrogates were added to each sample at a known concentration. Analytical results were compared to the known concentration of each surrogate added and reported as a percent recovered. The percent recoveries for all surrogates were within the acceptable ranges.

As part of the quality control for the groundwater VOC, TPH, metals, and perchlorate analyses, laboratory QC evaluation included LCS/LCSD and MS/MSD samples. The percent recoveries for the LCS and LCS duplicate samples were within the acceptable limits. The percent recoveries for the MS/MSD samples were within the acceptable limits.

This quality assurance and quality control evaluation indicates that the data were of acceptable quality.

# 7 Modifications to The Work Plan

The following modifications to the work plan were made based on site conditions:

- Sample location S2 was moved closer to the Project site because the direct push drill rig could not advance deeper than 3 feet in the original location due to dense subsurface conditions. Three stepout attempts were made but were also unsuccessful. The final location of S2 was advanced to 10 feet bgs instead of the planned 15 feet bgs. Soil vapor probes were placed at 10 feet bgs and 5 feet bgs.
- The lower soil vapor probe constructed at the S3 location was placed at 10 feet bgs instead of 15 feet bgs because dense subsurface conditions limited the borehole advancement.
- Sample location S4 was moved north, closer to the Project site to include a representative sample close to a former bunker.
- Locations S7 and S9 were moved slightly closer together because of subsurface utility conflicts.
- The location of S6 was originally planned for groundwater sampling but was switched with location S8 due to driller miscommunication.
- Soil samples were collected at 0.5 feet bgs in boreholes S1 through S7 as requested in the DTSC conditional approval letter dated January 6, 2022.
- The DTSC requested that the tracer used during soil vapor sampling should be a compound other than the originally proposed n-pentane, n-hexane, and n-heptane. Due to a miscommunication with the chemist from Jones Environmental, the tracer was not changed and n-pentane, n-hexane, and n-heptane were used. No tracer was detected in soil vapor samples. Furthermore, the laboratory stated that if there was tracer breakthrough in the sample results for TPH gasoline range organics, the field technician would have observed three distinct peaks early on the chromatogram in the C5 through C7 range, which were not observed.
- Groundwater development occurred in both temporary groundwater wells using a bailer, but a pump was only used at S8 for development. Available groundwater in sample location S9 limited the use of the pump because the temporary well could not sustain adequate groundwater recovery with the bailer.
- The work plan stated that the wells should be developed to less than 100 nephelometric turbidity units (NTU). A turbidity of below 100 NTU was reached at sample location S9 but a turbidity of less than 100 NTU at S8 could not be reasonably achieved. Turbidity readings at S8 before sampling measured 400 NTU.

# 8 Conceptual Site Model

## 8.1 Site Description

The site is an approximately 0.81 acre area in the western portion of the Norco College campus. The site is mostly vacant and unpaved, however, the western corner of the existing Center for Applied and Competitive Technologies building overlaps a small portion of the site. The site is the proposed location for the CHP+K Building, a proposed 55,000 gross square-foot two-story structure. Areas surrounding the proposed building are mostly unpaved and undeveloped, but also include the eastern-adjacent Center for Applied and Competitive Technologies building and a paved parking lot to the south.

There are no current hazardous materials or waste use, management, or processing areas.

## 8.2 Site Geology and Hydrogeology

Lithology encountered during this investigation at the site consisted of silty clay, poorly graded sand, well graded sand, and small sections of clay and silt. Silty sand and poorly graded sand predominantly made up the lithology in the shallow subsurface around the Project site. Groundwater was encountered in loose alluvial material at roughly 35 to 40 feet bgs.

According to information on the State Water Resources Control Board (SWRCB) GAMA website, the nearest municipal water well is located approximately 2/3 mile west of the site.

According to documents viewed on the SWRCB GeoTracker website associated with the Thrifty Oil #338 site, located approximately 2/3 mile east of the site, the groundwater flow direction in the vicinity of the site is toward the southeast (SWRCB 2022).

## 8.3 Potential Source Areas

Due to the prior military use of the site and existing Land Use Covenant, a subsurface investigation was required prior to construction approval. The investigation was focused within the footprint of the proposed CHP+K building and the immediate surrounding area; potential source areas near the proposed project included a former waste oil AST and a bunker (Figure 2). Both the waste oil AST and bunker were removed from the site during the construction of the Norco College campus in the early 1990s.

## 8.4 Exposure Scenarios

The exposure scenario considered in this evaluation is inhalation/vapor intrusion in the proposed future building. While the actual exposure scenario would be the commercial/industrial scenario, community colleges and other schools conservatively consider residential use scenarios.

## 8.5 Nature and Extent of Contamination

Soil samples were collected from the following depths:

- 0.5, 5, 10, and 15 feet bgs (locations S1, S4, S5, S6, and S7)
- 0.5, 5, and 8 feet bgs (location S2)
- 0.5, 5, and 10 feet bgs (location S3)
- 5, 10, 15, 20, 25, 30,35, 40, and 45 feet bgs (locations S8 and S9)

No VOCs or TPH were detected in the soil samples collected from the site.

Groundwater samples were collected from the two temporary wells (S8 and S9); groundwater was encountered at 35 feet bgs and 41.5 feet bgs in the temporary wells during the sampling event. No VOCs or TPHg were detected in the groundwater samples.

The results of the sampling indicate that VOC and TPHg impacts do not extend to the water table.

The results of the investigation revealed limited soil vapor detections of VOCs and TPHg in the shallow subsurface (5 and 15 feet bgs).

- The highest TPHg concentration (an order of magnitude higher than other site detections) was detected at S4, located near the parking lot (not under the proposed building footprint) and from the same location and depth where a soil sample was collected and found to not contain any TPH above the laboratory reporting limit. Concentrations of TPHg detected under the building were 30,600 $\mu g/m^3$ and 35,400 $\mu g/m^3$.
- Benzene and chloroform were detected under the proposed building footprint at concentrations up to 42 and 17 $\mu g/m^3$. These concentrations are below the residential and commercial/industrial screening levels using an attenuation factor of 0.001 (the more appropriate screening level for new construction).
- While no PCE was detected from samples collected under the proposed building footprint, PCE was detected at concentrations up to 49 $\mu g/m^3$ in samples collected south and east of the proposed building. The PCE concentrations were all below the residential and commercial/industrial screening levels using an attenuation factor of 0.001 (the more appropriate screening level for new construction).

## 8.6 Human Health Risk

### 8.6.1 Screening Level Evaluation

Four soil vapor samples from two locations within the proposed building footprint were collected and analyzed for TPHg and VOCs. This section presents a screening level risk evaluation using the maximum concentration of TPHg and VOCs detected within the proposed building. It is appropriate to use the samples collected under the proposed building footprint because the exposure scenario evaluated is vapor intrusion into the future building. Additionally, use of the 0.001 attenuation factor is appropriate due to the new construction associated with the future building.

Table 12 in Appendix B presents the screening level risk evaluation under this scenario (maximum concentration detected within the proposed building footprint and 0.001 attenuation factor) for both the residential and commercial/industrial use. The residential and commercial cancer risk is 6 x $10^{-7}$ and 1 x $10^{-7}$, respectively. The residential and commercial non-cancer risk, or hazard index, is 0.2 and 0.05, respectively. These cancer and non-cancer risk estimates for both the residential and commercial use scenarios are all de minimis, indicating no need for vapor mitigation.

In accordance with the 2020 draft DTSC and RWQCB vapor intrusion guidance, the attenuation factor of 0.03 was also considered. Table 12 also presents the risk estimates using the more conservative attenuation factor of 0.03. The resulting residential and commercial cancer risk is 2 x $10^{-5}$ and 4 x $10^{-6}$, respectively. This estimated cancer risk is above the de minimis cancer risk of one in a million, but falls within the risk management range, for which potential response actions could include no action, additional sampling, monitoring, mitigation, or remediation, among other actions. The residential and commercial non-cancer risk, or hazard index, is 7 and 2, respectively. The non-cancer risk estimates for both the residential and commercial use scenarios are above the de minimis risk level, and in accordance with the 2020 draft DTSC and RWQCB vapor intrusion guidance, indicate a need for vapor mitigation based on the hazard index that is greater than 1. The elevated hazard index in this scenario is due to the TPHg concentrations. It should be noted that the TPHg concentrations detected at the site were bulk TPH, whereas the screening levels used in the evaluation are fractionated TPH. These concentrations are not comparable and the non-cancer risk calculation is based on an assumed aliphatic to aromatic TPH ratio of 75% to 25%. An alternative GRO hazard index was calculated using the TPHg draft ESL and an alternative total hazard index was calculated by addition of the GRO-ESL hazard risk to the RSL calculated hazard risks for the other detected constituents. This resulted in a total alternative residential and commercial hazard index of 2 and 0.5, respectively.

# 9 Summary and Conclusions

Metals were detected in soil samples collected at and around the Project site. Arsenic was detected above the ESL and DTSC-Modified SL but was below background concentrations found in soils throughout California (Bradford et al. 1996). Lead was detected above the residential ESL and DTSC-Modified SL at 180 mg/Kg at sample location S1 at 5 feet bgs. This lead concentration is below the commercial/industrial ESL and DTSC-Modified SL. Lead detected in all remaining soil samples was below all regulatory screening levels.

TPHg (gasoline range organics C4 through C12) was detected in the 5-foot soil vapor samples collected from locations S4, S5, S6, and S7. TPHg was not detected above laboratory reporting limits in other soil vapor samples or in any of the soil or groundwater samples collected at the site.

Several VOCs were detected in the soil vapor samples collected at and around the Project site. Benzene, chloroform, and PCE were detected in site soil vapor samples below the residential and commercial/industrial screening levels using an attenuation factor of 0.001 (the more appropriate screening level for new construction).

Benzene and chloroform were the only VOCs detected above RSLs and DTSC-Modified SLs using an attenuation factor of 0.03. Benzene was above RSLs and DTSC-Modified SLs in sample locations S4, S5, S6, and S7 at both 5 feet bgs and 15 feet bgs. Chloroform was detected above RSLs in sample locations S4 and S7 at 5 feet bgs using a conservative attenuation factor of 0.03. Although benzene and chloroform were detected above ESLs and DTSC-Modified SL in soil vapor samples, no VOCs were detected above screening levels in soil or groundwater samples.

No VOCs or TPHg were detected in the groundwater samples collected at the site. The data indicate that VOCs and TPHg have not impacted groundwater at the site.

A screening level risk evaluation was conducted to estimate potential cancer and non-cancer risk associated with vapor intrusion into the future proposed building at the site. As the evaluation considers vapor intrusion into the future proposed building, only samples collected from within the proposed building footprint were considered. Additionally, as the project includes new construction of the future building, and for other reasons discussed in Section 5.2, it is more appropriate to use the attenuation factor of 0.001 to evaluate risk at the site than the 0.03 attenuation factor.

The cancer and non-cancer risk estimates for both the residential and commercial use scenarios using the 0.001 attenuation factor are all de minimis, indicating no need for vapor mitigation or other response actions. However, in accordance with the 2020 draft DTSC and RWQCB vapor intrusion guidance, the attenuation factor of 0.03 was also considered. The estimated cancer risk using the attenuation factor of 0.03 is above the de minimis cancer risk of one in a million, but falls within the risk management range, for which potential response actions could include no action, additional sampling, monitoring, mitigation, or remediation, among other actions. The residential and commercial non-cancer risk, or hazard index, is greater than 1, which indicates a need for vapor mitigation based on the 2020 draft DTSC and RWQCB vapor intrusion guidance. The elevated hazard index in this scenario is due to the TPHg concentrations.

While the screening level risk evaluation using the more appropriate attenuation factor does not indicate a need for vapor mitigation or other response actions, the more conservative risk evaluation does indicate a need for vapor mitigation or remediation.

The results of the soil, soil vapor, and groundwater sampling conducted at Project site satisfy the investigation requirements presented in the Land Use Covenant. A vapor barrier is proposed to limit vapor migration into the new building; the proposed mitigation system design and operation, maintenance, and monitoring plan will be submitted under separate cover . Additionally, site soil vapor concentrations will be at least partially remediated during the proposed excavation and recompaction of soil beneath the proposed building footprint to a depth of approximately 35 feet. As such, Dudek respectfully requests that DTSC grant RCCD approval to move forward with the construction of the proposed Center for Human Performance + Kinesiology project.

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# Figures

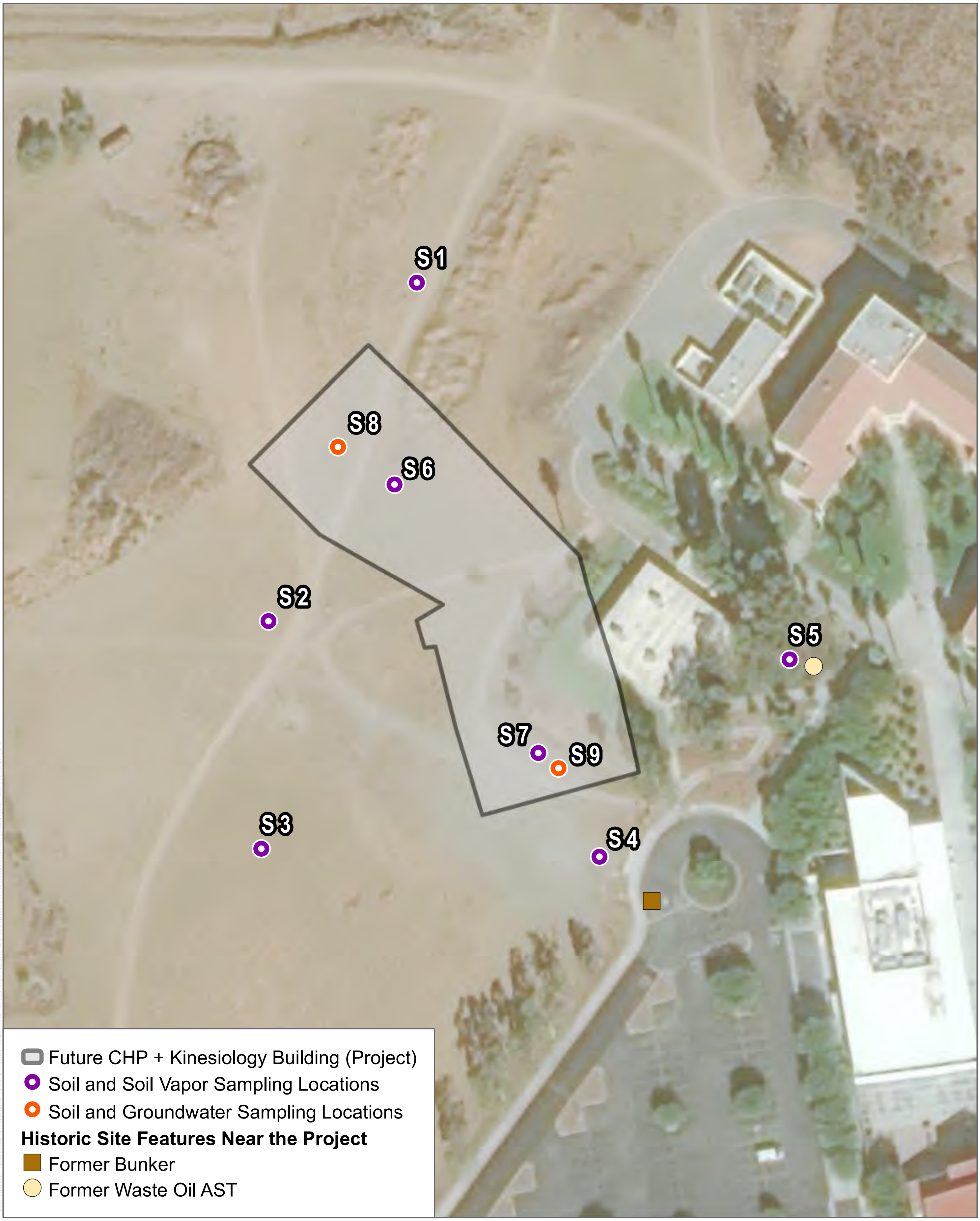
SOURCE: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

**FIGURE 1**

Project Location

Subsurface Investigation Work Plan - Norco College CHP + Kinesiology Project

DUDEK



SOURCE: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Febuary 2022

DUDEK

0 45 90 Feet

**FIGURE 2**

Sample Locations

Subsurface Investigation - Norco College CHP + Kinesiology Project

SOURCE: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Febuary 2022

DUDEK

0 45 90 Feet

**FIGURE 3**

Shallow Soil Vapor VOC Sample Concentrations (5 feet bgs)

SOURCE: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Febuary 2022

DUDEK

**FIGURE 4**

Deep Soil Vapor VOC Sample Concentrations (15 feet bgs)

Subsurface Investigation - Norco College CHP + Kinesiology Project

# Appendix A

## ULS Service Report

SAN DIEGO/ LA / SACRAMENTO
WWW.ULSSERVICES.COM
WWW.1ULS.COM

CORPORATE ADDRESS
4275 37th St., Suite 232
San Diego, CA 92105

*FIELD SERVICES:*

*THROUGHOUT CALIFORNIA*

# ULS CA, INC

## Work Order Agreement

| | |
|---|---|
| **Job Site Location**<br>**2001 THIRD ST** | **PO TO WA** |
| **City, State**<br>**NORCO, CA** | **Job Date**<br>**1-12-22** |

| | | |
|---|---|---|
| **CLIENT DUDEK** | **FIELD TIME 2 REPORT 1** | **LABOR HOURS W/REPORT/ HRS 3** |
| **ADDRESS** | | **FAXED** |
| **CITY, STATE, ZIP** | | **TELEPHONED** |
| **PHONE/FAX** | | **HAND DELIVERED** |
| **E-MAIL** | | **E-MAILED** |

**WORK REQUESTED: UTILITY SURVEY AT 9 PROPOSED POINTS**

| | |
|---|---|
| **WORK PERFORMED** | **PRELIMINARY REVIEW OF CLIENT PROVIDED UTILITY DRAWINGS/AS-BUILTS: NONE** |
| **VISUAL SITE INSPECTION (MANHOLES, DRAINS): YES**<br>**SURFACE ONLY** | **EMPCL CONDUCTIVE UTILITY SURVEY: CHECKED**<br>**GAS: X ELECTRIC: X COMM.: X WATER: X** |
| **EMIMD METAL DETECTION SURVEY : YES**<br>**AMBIENT NOISE AND SETTINGS**<br>**LOW NOISE** \| **GAIN 6** \| **ELEV LOW**<br>**REBAR IN CONCRETE ? YES** | **EM INSERTION : NF - INSERTION METHODS NOT PROVIDED DUE TO HEALTH AND SAFETY.**<br>**SEE NOTES BELOW REGARDING LATERALS** |
| **GPR NON-CONDUCTIVE SURVEY: POOR** | **CLIENT ON-SITE REVIEW OF FINDINGS: YES** |

### GENERAL LIMITATIONS

NOTE: The work described herein is performed to industry standards (or higher) using multiple methodology and QA/QC protocol. ULS cannot guarantee the accuracy or the ability to detect all underground facilities and potential interferences. Non-conductive or conductive utilities/facilities may not be detected due to variables and constraints beyond ULS control. Where known, constraints and limitations will be brought to the client's attention. Excavation work may result in injury to persons and/or damage to facilities. Client and/or excavator are advised to take all steps necessary to avoid contact with underground facilities. This includes, but is not limited to, safe digging practices, hand tooling in congested areas and within two feet on side of marked utilities (distance may vary by law), utility drawing review, site facilities representative review, and "one-call" utilities notification. ULS and its representatives are not responsible for injury to persons or damage to facilities. This document and accompanying pages will be delivered to the client before commencement of intrusive work for the client's review. If any questions arise, please notify our office immediately.

NOTE: Specific comments/limitations/constraints, known and recognized will be recorded on attached pages (field notes). Caution – some facilities (conductive or non- conductive) may not be detected. Not all limitations and constraints may be recognized.

| | | |
|---|---|---|
| **SIGNATURE OF ULS REPRESENTATIVE ON-SITE**<br>**CHRIS REIMER** | | **PAGE OF**<br>**1** |

## *ULS CA, INC*

……

**CLIENT** **DUDEK**
**LOCATION** **2001 THIRD ST**
**DATE** **1-12-22**

**METHODS AND GENERAL OBSERVATIONS:**

**ARRIVED SITE AND COMPLETED H&S TAILGATE AND/OR PERMIT TO WORK WITH CLIENT. SET UP DELINEATORS AROUND VEHICLE AND NEAR BLINDSPOTS AND ENTRY WAYS. MADE GENERAL SITE WALK TO REVIEW SURVEY AREAS (PROPOSED ZONES). CHECKED FOR SURFACE UTILITY MANIFESTATIONS SUCH AS VALVES, METERS, CONDUITS, TRENCHING SEAMS, VAULT LIDS AND EXISTING ONE CALL MARKINGS. BEGAN MARKOUT WORK.**

**METHODS UTILIZED INCLUDE: EM PIPE AND CABLE LOCATOR USING AMBIENT, GROUND INDUCTION AND CONNNECTION MODE SWEEPS. EM INDUCTION METAL DETECTOR AND GPR. A CARTISIAN GRID PATH IS WALKED AT EACH PROPOSED ZONE USING ALL METHODOLOGY. OBSERVATIONS ARE MARKED WITH WHITE AND/OR PINK PAINT. ZONE IS MARKED OUT WITH WHITE AND/OR PINK MARKINGS (REFER TO PHOTOS).**

### SITE CALIBRATION - GENERAL OBSERVATIONS

EM PIPE AND CABLE TRANSMITTER TO RECIEVER (GROUND INDUCTION AND CONNECTION)
BROADCASTING IS _GOOD____ATTENUATION EFFECTS FROM
CONCRETE STEEL REINFORCEMENT NIL______
EMIMD METAL DETECTOR BACKGROUND EM NOISE IS _LOW_____________
GPR PENETRATION AND RESOLUTION IS __POOR_________.

**SEE QA / QC OBSERVATION COMMENTS TO RIGHT SIDE**
**AND SPECIFIC OBSERVATIONS / COMMENTS BELOW**

[redacted] **ULS CA, INC**

**CLIENT** **DUDEK**
**LOCATION** **2001 THIRD ST**
**DATE** **1-12-22**

## SPECIFIC OBSERVATIONS AND COMMENTS OR CONCERNS:

**PROPOSED :**

**S1, S6, S8, S2 AND S3 – NO SIGNALS FOUND IN CONFLICT.**

**S5 – ELECTRIC TO STREET LIGHTING IN SIDEWALK. CAUTION FOR PVC IRRIGATION LINES**

**S9 AND S7 – CAUTION FOR ELECTRIC AT 6' TO 9' SOUTH AND WATER AT 9' NORTH**

**S9A AND S7A – CAUTION FOR ELECTRIC AT 9' TO 12' SOUTH AND WATER AT 9' NORTH**

**S4 – EXTREME CAUTION FOR UNKNOWN EM SIGNAL AT POINT. POINT MOVED 6' TO 8' WEST.**

**END REPORT/ PHOTO EDITS ATTACHED**

**LOCATE ENERGY ISOLATION INCLUDING WATER AT THIS SITE AND SAWCUT, JACKHAMMER, AIRKNIFE DIG CAREFULLY IN EACH LOCATION.**

.

**CHRIS REIMER**
**ULS CA, INC**

| | |
|---|---|
| | **QA / QC** Follows |
| **X** | **SITE WALK** |
| **X** | VISUALS |
| **X** | |
| **X** | **UTILITY MAINS** |
| **X** | **ELECTRIC** – FROM VAULTS |
| **X** | **TELEPHONE** – AWAY FROM PTS |
| **X** | **NAT GAS NONE OBSERVED** |
| **X** | **WATER CAUTION USA MARKED** |
| X | SEWER/STORM SEWER MH AWAY FROM POINTS |
| X | **SEWER LATERAL** |
| **X** | **CAUTION NO C/O'S OBSERVED** |
| X | CAUTION PVC WATER |
| X | |
| X | **OTHER** |
| | |
| | FUELS SYSTEM |
| | USTS |
| | PIPING |
| | VENTS |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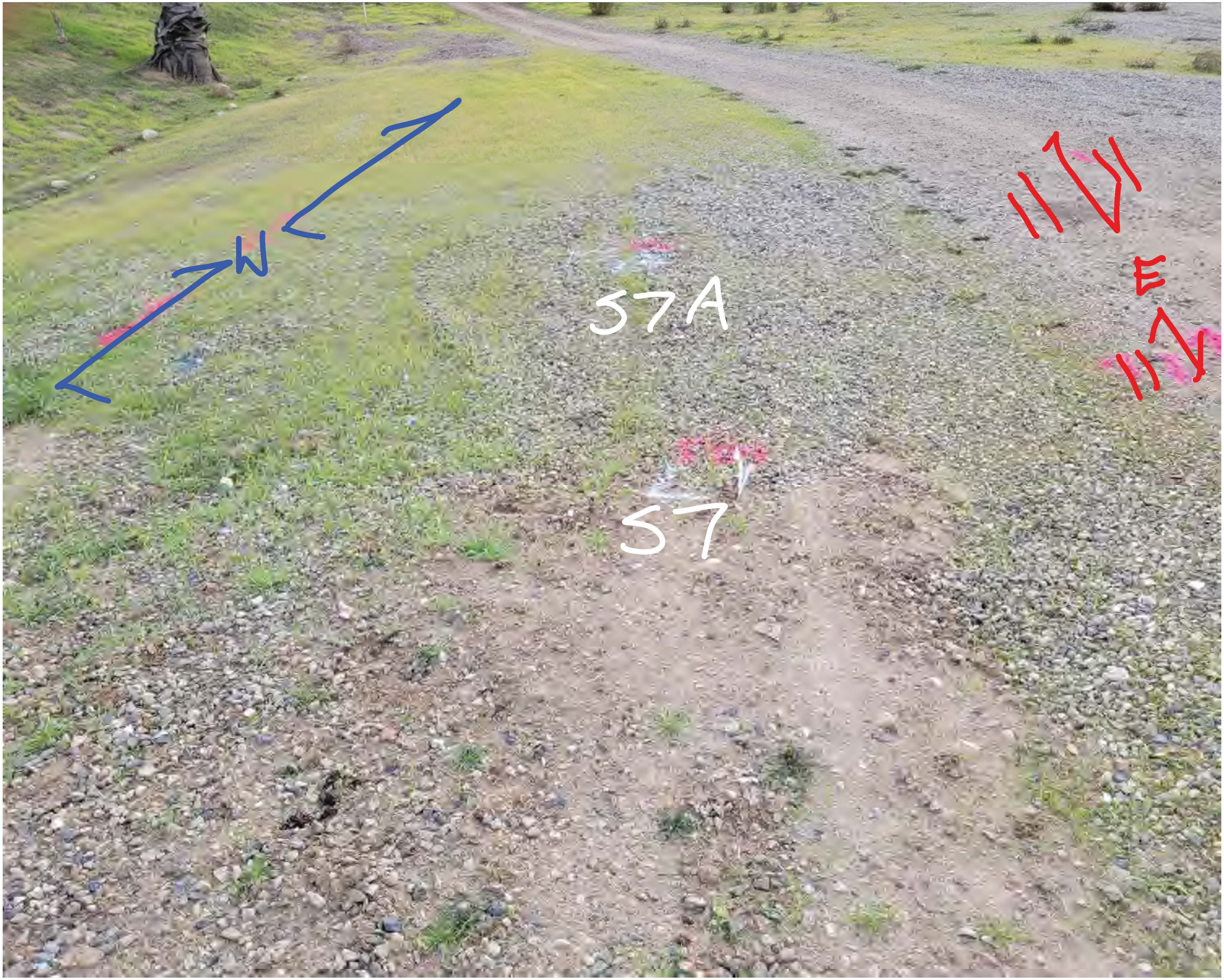
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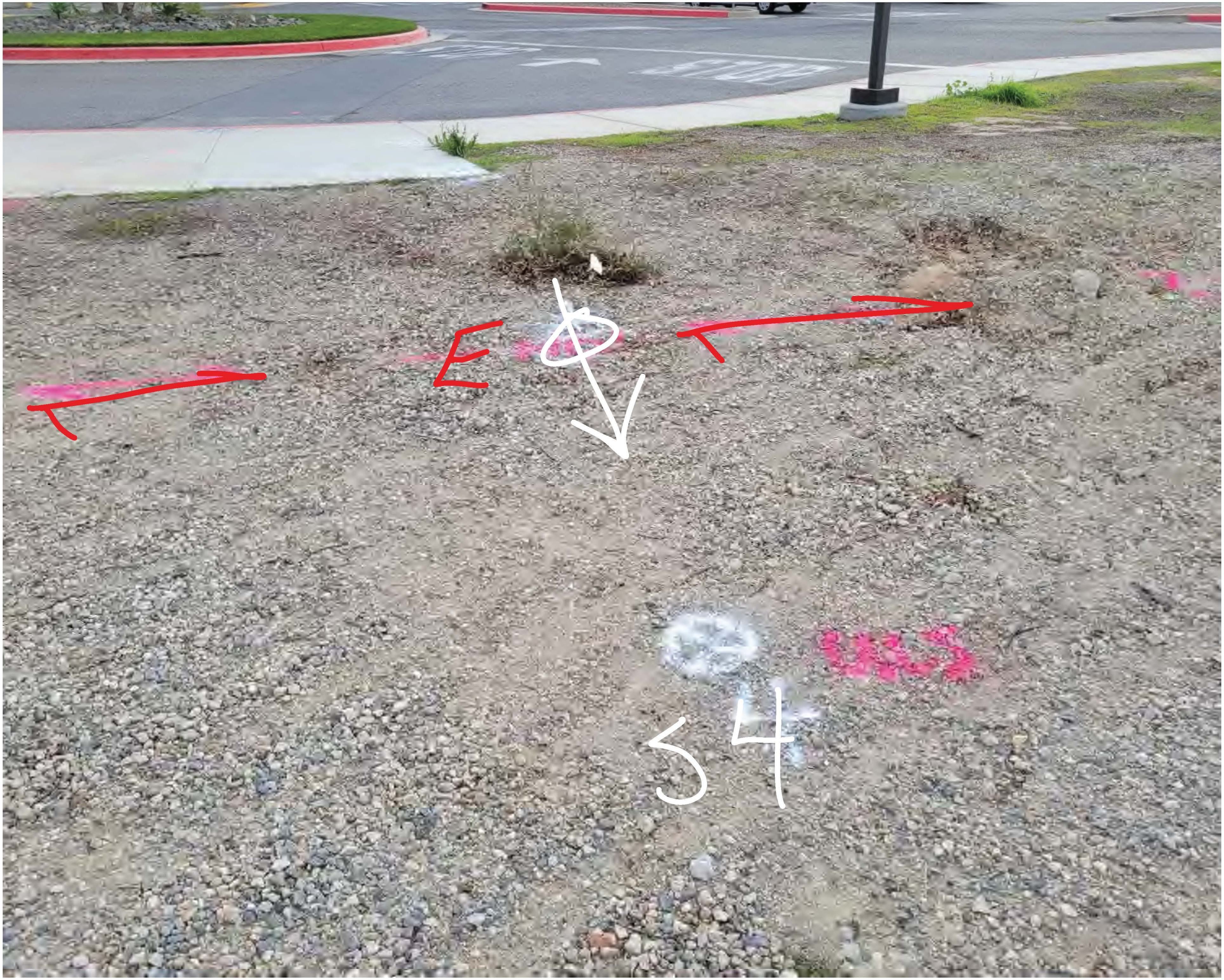
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# Appendix B

## Tables

# Table 1. Soil Vapor Probe Construction Details

| Well Number | Date of Completion | Drilling Method | Total Depth (feet bgs) | Borehole Diameter (inches) | Lower Vapor Probe Depth[1] (feet bgs) | Lower Transition Seal[2] (feet bgs) | Lower Seal[3] (feet bgs) | Upper Vapor Probe Depth[1] (feet bgs) | Upper Transition Seal[2] (feet bgs) | Upper Seal[3] (feet bgs) | Latitude[4] | Longitude[4] | General Location Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S1 | 1/15/2022 | Direct Push | 15 | 2.25 | 15-14 | 14-13 | 13-5 | 5-4 | 4-3 | 3-0 | 33.918683 | -117.571361 | Approximately 60 feet north of the Project site |
| S2 | 1/15/2022 | Direct Push | 10 | 2.25 | 10-9 | 9-8 | 8-5 | 5-4 | 4-3 | 3-0 | 33.918020 | -117.571698 | Approximately 70 feet southwest of the western boundary of the Project site |
| S3 | 1/15/2022 | Direct Push | 10 | 2.25 | 10-9 | 9-8 | 8-5 | 5-4 | 4-3 | 3-0 | 33.917577 | -117.571708 | Approximately 160 feet south west of the western boundary of the Project site |
| S4 | 1/15/2022 | Direct Push | 15 | 2.25 | 15-14 | 14-13 | 13-5 | 5-4 | 4-3 | 3-0 | 33.917570 | -117.570918 | Approximately 55 feet south of the southern boundary of the Project site |
| S5 | 1/15/2022 | Direct Push | 15 | 2.25 | 15-14 | 14-13 | 13-5 | 5-4 | 4-3 | 3-0 | 33.917958 | -117.570479 | Approximately 120 feet east of the eastern boundary of the Project site. |
| S6 | 1/15/2022 | Direct Push | 15 | 2.25 | 15-14 | 14-13 | 13-5 | 5-4 | 4-3 | 3-0 | 33.918289 | -117.571408 | Southern end of the Project site (within the Project footprint) |
| S7 | 1/15/2022 | Direct Push | 15 | 2.25 | 15-14 | 14-13 | 13-5 | 5-4 | 4-3 | 3-0 | 33.917769 | -117.571063 | Northern end of the Project site (within the Project footprint) |

**Notes:**

bgs = below ground surface

[1] Annular space around vapor probe backfilled with Cemex #3 sand.

[2] Transition seal composed of dry granular bentonite.

[3] Upper seal composed of hydrated bentonite crumbles.

[4] Location estimated from using portable GPS unit.

## Table 2. Temporary Groundwater Well Construction Details

| Well Number | Date of Completion | Drilling Method | Total Borehole Depth (feet bgs) | Borehole Diameter (inches) | Casing Diameter (inches) | Screen interval (feet bgs) | Blank Interval (feet bgs) | Depth to Water (feet bgs) | Latitude[1] | Longitude[1] | General Location Description |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S8 | 1/19/2022 | Hollow Stem Auger | 45 | 8 | 2 | 45-40 | 40-0 | 35 | 33.918361 | -117.571540 | Southern end of the Project site (within the Project footprint) |
| S9 | 1/20/2022 | Hollow Stem Auger | 45 | 8 | 2 | 45-40 | 40-0 | 41.5 | 33.917741 | -117.571016 | Northern end of the Project site (within the Project footprint) |

**Notes:**

bgs = below ground surface

[4] Location estimated from using portable GPS unit.

# Table 3. Total Petroleum Hydrocarbons in Soil Samples

| Sample Location | Sample ID | Sample Depth (feet bgs) | Sample Date | Gasoline Range Organics (C4-C13) | Diesel Range Organics (C13-C22) | Oil Range Organics (C23-C40) |
|---|---|---|---|---|---|---|
| | | | | milligrams per kilogram (mg/kg) | | |
| S1 | S1-0.5 | 0.5 | 1/15/2022 | <2.3 | <10 | <20 |
| | S1-5 | 5 | 1/15/2022 | <2.2 | <10 | <20 |
| | S1-10 | 10 | 1/15/2022 | <2.1 | <10 | <20 |
| | S1-15 | 15 | 1/15/2022 | <2.2 | <9.9 | <20 |
| S2 | S2-0.5 | 0.5 | 1/15/2022 | <2.4 | <9.9 | <20 |
| | S2-5 | 5 | 1/15/2022 | <2.3 | <9.9 | <20 |
| | S2-8 | 8 | 1/15/2022 | <2.4 | <10 | <20 |
| S3 | S3-0.5 | 0.5 | 1/15/2022 | <2.2 | <10 | <20 |
| | S3-5 | 5 | 1/15/2022 | <2.2 | <10 | <20 |
| | S3-10 | 10 | 1/15/2022 | <2.4 | <10 | <20 |
| S4 | S4-0.5 | 0.5 | 1/15/2022 | <2.5 | <10 | <20 |
| | S4-5 | 5 | 1/15/2022 | <2.0 | <9.9 | <20 |
| | S4-10 | 10 | 1/15/2022 | <2.2 | <9.9 | <20 |
| | S4-15 | 15 | 1/15/2022 | <2.5 | <9.9 | <20 |
| S5 | S5-0.5 | 0.5 | 1/15/2022 | <2.3 | <9.9 | <20 |
| | S5-5 | 5 | 1/15/2022 | <2.5 | <10 | <20 |
| | S8-5 (Duplicate) | 5 | 1/15/2022 | <2.5 | <10 | <20 |
| | S5-10 | 10 | 1/15/2022 | <2.4 | <9.9 | <20 |
| | S5-15 | 15 | 1/15/2022 | <2.7 | <10 | <20 |
| S6 | S6-0.5 | 0.5 | 1/15/2022 | <2.3 | <9.9 | <20 |
| | S6-5 | 5 | 1/15/2022 | <2.1 | <10 | <20 |
| | S6-10 | 10 | 1/15/2022 | <2.3 | <9.9 | <20 |
| | S6-15 | 15 | 1/15/2022 | <2.3 | <10 | <20 |
| S7 | S7-0.5 | 0.5 | 1/15/2022 | <2.0 | <10 | <20 |
| | S7-5 | 5 | 1/15/2022 | <2.3 | <9.9 | <20 |
| | S7-10 | 10 | 1/15/2022 | <2.0 | <10 | <20 |
| | S7-15 | 15 | 1/15/2022 | <2.5 | <9.9 | <20 |
| S8 | S8-5 | 5 | 1/19/2022 | <2.5 | <10 | <20 |
| | S8-10 | 10 | 1/19/2022 | <2.3 | <10 | <20 |
| | S5-15 | 15 | 1/19/2022 | <2.2 | <10 | <20 |
| | S8-20 | 20 | 1/19/2022 | <2.4 | <10 | <20 |
| | S8-25 | 25 | 1/19/2022 | <3.2 | <10 | <20 |
| | S8-30 | 30 | 1/19/2022 | <2.5 | <10 | <20 |
| | S8-35 | 35 | 1/19/2022 | <2.2 | <10 | <20 |
| | S8-40 | 40 | 1/19/2022 | <2.4 | <9.9 | <20 |
| | S8-45 | 45 | 1/19/2022 | <2.0 | <10 | <20 |
| S9 | S9-5 | 5 | 1/20/2022 | <2.5 | <10 | <20 |
| | S9-10 | 10 | 1/20/2022 | <2.4 | <10 | <20 |
| | S9-15 | 15 | 1/20/2022 | <2.5 | <10 | <20 |
| | S9-20 | 20 | 1/20/2022 | <2.4 | <9.9 | <20 |
| | S9-25 | 25 | 1/20/2022 | <2.6 | <9.9 | <20 |
| | S9-30 | 30 | 1/20/2022 | <2.4 | <10 | <20 |
| | S9-35 | 35 | 1/20/2022 | <2.4 | <9.9 | <20 |
| | S9-40 | 40 | 1/20/2022 | <2.5 | <10 | <20 |
| | S9-45 | 45 | 1/20/2022 | <2.8 | <10 | <20 |
| *DTSC-Modified SL - Residential Soil* [1] | | | | - | - | - |
| *DTSC-Modified SL - Commercial/Industrial Soil* [1] | | | | - | - | - |
| *EPA - RSL - Residential Soil* [2] | | | | *210/ 300** | *96/300* | *230,000/18* |
| *EPA - RSL - Commercial/Industrial Soil* [2] | | | | *1,500/ 1,700** | *440/1,700* | *3,500,000/220* |

**Notes:**

Samples analyzed by EPA Method 8015B & 8015M by Enthalpy Analytical

bgs = below ground surface

DTSC-Modified SL = Department of Toxic Substance Control - Modified Screening Level

RSL = USEPA Regional Screening Level

- = no documented value

Results for non-detect constituents are indicated as less than the reporting limit.

[1] Department of Toxic Substance Control, Human Health Risk Assessment Note Number 3. Screening Level, Cancer End Point (DTSC 2022)

[2] Environmental Protection Agency, Regional Screening Level (Aliphatic/Aromatic; November 2022)

Table 4. Volatile Organic Compounds in Soil Samples

| Sample Location | Sample ID | Sample Depth (feet bgs) | Sample Date | All VOCs |
|---|---|---|---|---|
| | | | | micrograms per kilogram (µg/Kg) |
| S1 | S1-0.5 | 0.5 | 1/15/2022 | ND |
| | S1-5 | 5 | 1/15/2022 | ND |
| | S1-10 | 10 | 1/15/2022 | ND |
| | S1-15 | 15 | 1/15/2022 | ND |
| S2 | S2-0.5 | 0.5 | 1/15/2022 | ND |
| | S2-5 | 5 | 1/15/2022 | ND |
| | S2-8 | 8 | 1/15/2022 | ND |
| S3 | S3-0.5 | 0.5 | 1/15/2022 | ND |
| | S3-5 | 5 | 1/15/2022 | ND |
| | S3-10 | 10 | 1/15/2022 | ND |
| S4 | S4-0.5 | 0.5 | 1/15/2022 | ND |
| | S4-5 | 5 | 1/15/2022 | ND |
| | S4-10 | 10 | 1/15/2022 | ND |
| | S4-15 | 15 | 1/15/2022 | ND |
| S5 | S5-0.5 | 0.5 | 1/15/2022 | ND |
| | S5-5 | 5 | 1/15/2022 | ND |
| | S8-5 (Duplicate) | 5 | 1/15/2022 | ND |
| | S5-10 | 10 | 1/15/2022 | ND |
| | S5-15 | 15 | 1/15/2022 | ND |
| S6 | S6-0.5 | 0.5 | 1/15/2022 | ND |
| | S6-5 | 5 | 1/15/2022 | ND |
| | S6-10 | 10 | 1/15/2022 | ND |
| | S6-15 | 15 | 1/15/2022 | ND |
| S7 | S7-0.5 | 0.5 | 1/15/2022 | ND |
| | S7-5 | 5 | 1/15/2022 | ND |
| | S7-10 | 10 | 1/15/2022 | ND |
| | S7-15 | 15 | 1/15/2022 | ND |
| S8 | S8-5 | 5 | 01/19/2022 | ND |
| | S8-10 | 10 | 01/19/2022 | ND |
| | S5-15 | 15 | 01/19/2022 | ND |
| | S8-20 | 20 | 01/19/2022 | ND |
| | S8-25 | 25 | 01/19/2022 | ND |
| | S8-30 | 30 | 01/19/2022 | ND |
| | S8-35 | 35 | 01/19/2022 | ND |
| | S8-40 | 40 | 01/19/2022 | ND |
| | S8-45 | 45 | 01/19/2022 | ND |
| S9 | S9-5 | 5 | 01/20/2022 | ND |
| | S9-10 | 10 | 01/20/2022 | ND |
| | S9-15 | 15 | 01/20/2022 | ND |
| | S9-20 | 20 | 01/20/2022 | ND |
| | S9-25 | 25 | 01/20/2022 | ND |
| | S9-30 | 30 | 01/20/2022 | ND |
| | S9-35 | 35 | 01/20/2022 | ND |
| | S9-40 | 40 | 01/20/2022 | ND |
| | S9-45 | 45 | 01/20/2022 | ND |
| *DTSC-Modified SL - Residential Soil* [1] | | | | *Varies* |
| *DTSC-Modified SL - Commercial/Industrial Soil* [1] | | | | *Varies* |
| *EPA - RSL - Residential Soil* [2] | | | | *Varies* |
| *EPA - RSL - Commercial/Industrial Soil* [2] | | | | *Varies* |

**Notes:**

Samples analyzed by EPA Method 8260B by Enthalpy Analytical

bgs = below ground surface

VOC = Volatile Organic Compound

ND = not detected above the reporting limit. See lab report for reporting limits.

RSL = USEPA Regional Screening Level

DTSC-Modified SL = Department of Toxic Substance Control - Modified Screening Level

[1] Department of Toxic Substance Control, Human Health Risk Assessment Note Number 3. Screening Level, Cancer End Point (DTSC 2022)

[2] Environmental Protection Agency, Regional Screening Level (November 2022)

# Table 5. Metals in Soil Samples

| Sample Location | Sample ID | Sample Depth (feet bgs) | Sample Date | Antimony | Arsenic** | Barium | Beryllium | Cadmium | Chromium | Cobalt | Copper | Lead | Mercury | Molybdenum | Nickel | Selenium | Silver | Thallium** | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | milligrams per kilogram (mg/Kg) | | | | | | | | | | | | | | | | |
| S1 | S1-0.5 | 0.5 | 1/15/2022 | <2.6 | 2.7 | 47 | <0.43 | <0.43 | 11 | 4.1 | 9.7 | 13 | <0.14 | <0.86 | 6.3 | <2.6 | <0.43 | <2.6 | 28 | 45 |
| S1 | S1-5 | 5 | 1/15/2022 | <3.0 | 2.7 | 92 | <0.50 | <0.50 | 22 | 7.6 | 13 | **180** | <0.16 | <0.99 | 9.5 | <3.0 | <0.50 | <3.0 | 66 | 96 |
| S1 | S1-10 | 10 | 1/15/2022 | <2.9 | 2.9 | 74 | <0.48 | <0.48 | 15 | 6.2 | 13 | 19 | <0.16 | <0.96 | 7.5 | <2.9 | <0.48 | <2.9 | 44 | 46 |
| S1 | S1-15 | 15 | 1/15/2022 | <2.6 | 4.8 | 60 | 0.45 | <0.43 | 18 | 6.4 | 11 | 7.9 | <0.15 | <0.85 | 12 | <2.6 | <0.43 | <2.6 | 40 | 36 |
| S2 | S2-0.5 | 0.5 | 1/15/2022 | <3.0 | 2.4 | 50 | <0.50 | <0.50 | 13 | 4.3 | 10 | 27 | <0.16 | <1.0 | 7.1 | <3.0 | <0.50 | <3.0 | 31 | 57 |
| S2 | S2-5 | 5 | 1/15/2022 | <2.8 | 2.8 | 130 | <0.46 | <0.46 | 29 | 9.3 | 9.7 | 33 | <0.16 | <0.93 | 12 | <2.8 | <0.46 | <2.8 | 62 | 110 |
| S2 | S2-8 | 8 | 1/15/2022 | <2.9 | 1.7 | 170 | <0.49 | <0.49 | 36 | 9.8 | 14 | 48 | <0.16 | <0.97 | 12 | <2.9 | <0.49 | <2.9 | 73 | 87 |
| S3 | S3-0.5 | 0.5 | 1/15/2022 | <2.9 | 3.1 | 79 | <0.49 | <0.49 | 17 | 6.4 | 12 | 34 | <0.16 | <0.97 | 9.4 | <2.9 | <0.49 | <2.9 | 42 | 79 |
| S3 | S3-5 | 5 | 1/15/2022 | 3.3 | 3.0 | 74 | <0.49 | <0.49 | 41 | 9.8 | 9.1 | 52 | <0.16 | <0.97 | 16 | <2.9 | <0.49 | <2.9 | 55 | 780 |
| S3 | S3-10 | 10 | 1/15/2022 | <2.9 | 2.9 | 92 | <0.49 | 0.75 | 29 | 8.3 | 9.6 | 63 | <0.15 | <0.98 | 11 | <2.9 | <0.49 | <2.9 | 46 | 660 |
| S4 | S4-0.5 | 0.5 | 1/15/2022 | <2.5 | 2.8 | 57 | <0.42 | <0.42 | 11 | 4.8 | 9.8 | 21 | <0.16 | <0.85 | 5.9 | <2.5 | <0.42 | <2.5 | 33 | 52 |
| S4 | S4-5 | 5 | 1/15/2022 | <3.0 | 4.7 | 55 | <0.51 | <0.51 | 16 | 5.6 | 10 | 9.5 | <0.16 | <1.0 | 11 | <3.0 | <0.51 | <3.0 | 35 | 38 |
| S4 | S4-10 | 10 | 1/15/2022 | <2.8 | 2.6 | 73 | <0.47 | <0.47 | 16 | 5.7 | 10 | 27 | <0.14 | <0.93 | 8.7 | <2.8 | <0.47 | <2.8 | 35 | 69 |
| S4 | S4-15 | 15 | 1/15/2022 | <3.0 | 2.2 | 42 | <0.51 | <0.51 | 12 | 3.8 | 6.9 | 6.1 | <0.17 | <1.0 | 6.4 | <3.0 | <0.51 | <3.0 | 28 | 22 |
| S5 | S5-0.5 | 0.5 | 1/15/2022 | <3.0 | 3.7 | 58 | <0.50 | <0.50 | 14 | 4.9 | 9.4 | 15 | <0.15 | <1.0 | 8.5 | <3.0 | <0.50 | <3.0 | 30 | 58 |
| S5 | S5-5 | 5 | 1/15/2022 | <2.8 | 2.0 | 23 | <0.47 | <0.47 | 11 | 3.2 | 5.4 | 5.1 | <0.16 | <0.94 | 6.3 | <2.8 | <0.47 | <2.8 | 23 | 21 |
| S5 | S8-5 (Duplicate) | 5 | 1/15/2022 | <2.9 | 2.7 | 31 | <0.48 | <0.48 | 9.6 | 3.1 | 4.8 | 4.4 | <0.15 | <0.96 | 5.8 | <2.9 | <0.48 | <2.9 | 22 | 17 |
| S5 | S5-10 | 10 | 1/15/2022 | <2.9 | 2.4 | 42 | <0.48 | <0.48 | 12 | 3.9 | 11 | 12 | <0.16 | <0.96 | 6.6 | <2.9 | 0.72 | <2.9 | 28 | 36 |
| S5 | S5-15 | 15 | 1/15/2022 | <3.1 | 2.5 | 40 | <0.51 | <0.51 | 12 | 3.7 | 6.4 | 6.0 | <0.14 | <1.0 | 6.4 | <3.1 | <0.51 | <3.1 | 28 | 22 |
| S6 | S6-0.5 | 0.5 | 1/15/2022 | <2.6 | 2.8 | 64 | <0.43 | <0.43 | 15 | 5.3 | 12 | 32 | <0.15 | <0.87 | 7.9 | <2.6 | <0.43 | <2.6 | 36 | 81 |
| S6 | S6-5 | 5 | 1/15/2022 | <2.9 | 2.8 | 84 | <0.48 | <0.48 | 23 | 7.2 | 10 | 43 | <0.16 | <0.96 | 12 | <2.9 | <0.48 | <2.9 | 48 | 98 |
| S6 | S6-10 | 10 | 1/15/2022 | <2.9 | 3.0 | 37 | <0.48 | <0.48 | 12 | 4.3 | 6.7 | 11 | <0.15 | <0.96 | 7.6 | <2.9 | <0.48 | <2.9 | 28 | 23 |
| S6 | S6-15 | 15 | 1/15/2022 | <3.0 | 1.5 | 150 | <0.50 | <0.50 | 19 | 7.0 | 13 | 9.7 | <0.14 | <1.0 | 8.3 | <3.0 | <0.50 | <3.0 | 45 | 62 |
| S7 | S7-0.5 | 0.5 | 1/15/2022 | <2.6 | 3.5 | 74 | <0.43 | <0.43 | 15 | 6.4 | 14 | 26 | <0.16 | <0.85 | 8.3 | <2.6 | <0.43 | <2.6 | 42 | 56 |
| S7 | S7-5 | 5 | 1/15/2022 | <2.8 | 3.3 | 74 | <0.47 | <0.47 | 13 | 5.6 | 11 | 29 | <0.16 | <0.93 | 6.8 | <2.8 | <0.47 | <2.8 | 41 | 52 |
| S7 | S7-10 | 10 | 1/15/2022 | <2.8 | 4.8 | 77 | 0.53 | <0.46 | 21 | 5.6 | 11 | 18 | <0.17 | <0.92 | 10 | <2.8 | <0.46 | <2.8 | 52 | 37 |
| S7 | S7-15 | 15 | 1/15/2022 | <2.9 | 2.3 | 52 | <0.48 | <0.48 | 13 | 5.3 | 7.5 | 6.6 | <0.16 | <0.95 | 6.5 | <2.9 | <0.48 | <2.9 | 30 | 22 |
| S8 | S8-5 | 5 | 01/19/2022 | <2.9 | 3.2 | 47 | <0.48 | <0.48 | 13 | 4.9 | 10 | 13 | <0.16 | <0.96 | 9.5 | <2.9 | <0.48 | <2.9 | 25 | 31 |
| S8 | S8-10 | 10 | 01/19/2022 | <2.9 | 2.6 | 73 | <0.48 | <0.48 | 25 | 11 | 10 | 25 | <0.15 | <0.95 | 14 | <2.9 | <0.48 | <2.9 | 42 | 130 |
| S8 | S8-15 | 15 | 01/19/2022 | <3.0 | 1.8 | 79 | <0.50 | <0.50 | 35 | 16 | 9.3 | 30 | <0.14 | <0.99 | 15 | <3.0 | <0.50 | <3.0 | 59 | 200 |
| S8 | S8-20 | 20 | 01/19/2022 | <2.6 | 1.8 | 120 | <0.43 | <0.43 | 31 | 8.6 | 8.9 | 8.2 | <0.16 | <0.85 | 10 | <2.6 | <0.43 | <2.6 | 53 | 79 |
| S8 | S8-25 | 25 | 01/19/2022 | <3.0 | 1.4 | 120 | <0.50 | <0.50 | 28 | 7.3 | 14 | 12 | <0.15 | <1.0 | 9.7 | <3.0 | <0.50 | <3.0 | 44 | 74 |
| S8 | S8-30 | 30 | 01/19/2022 | <2.8 | 0.98 | 120 | <0.47 | <0.47 | 19 | 8.6 | 25 | 10 | <0.15 | <0.93 | 11 | <2.8 | <0.47 | <2.8 | 48 | 54 |
| S8 | S8-35 | 35 | 01/19/2022 | <3.1 | <1.0 | 170 | <0.52 | <0.52 | 20 | 7.6 | 15 | 11 | <0.15 | <1.0 | 8.5 | <3.1 | <0.52 | <3.1 | 45 | 50 |
| S8 | S8-40 | 40 | 01/19/2022 | <3.2 | <1.1 | 100 | <0.53 | <0.53 | 13 | 4.3 | 6.1 | 6.3 | <0.14 | <1.1 | 5.1 | <3.2 | <0.53 | <3.2 | 27 | 42 |
| S8 | S8-45 | 45 | 01/19/2022 | <2.8 | <0.94 | 130 | <0.47 | <0.47 | 28 | 6.2 | 13 | 9.0 | <0.16 | <0.94 | 7.4 | <2.8 | <0.47 | <2.8 | 36 | 63 |
| S9 | S9-5 | 5 | 01/20/2022 | <3.0 | 2.3 | 43 | <0.50 | <0.50 | 12 | 3.8 | 6.4 | 8.6 | <0.14 | <1.0 | 6.7 | <3.0 | <0.50 | <3.0 | 25 | 27 |
| S9 | S9-10 | 10 | 01/20/2022 | <3.2 | 2.4 | 43 | <0.53 | <0.53 | 12 | 3.9 | 9.1 | 5.0 | <0.15 | <1.1 | 6.6 | <3.2 | <0.53 | <3.2 | 26 | 22 |
| S9 | S9-15 | 15 | 01/20/2022 | <3.0 | 1.9 | 37 | <0.51 | <0.51 | 11 | 3.1 | 6.2 | 4.6 | <0.16 | <1.0 | 5.5 | <3.0 | <0.51 | <3.0 | 23 | 19 |
| S9 | S9-20 | 20 | 01/20/2022 | <2.7 | 1.6 | 130 | <0.45 | <0.45 | 30 | 6.1 | 14 | 11 | <0.16 | <0.91 | 9.8 | <2.7 | <0.45 | <2.7 | 55 | 53 |
| S9 | S9-25 | 25 | 01/20/2022 | <2.8 | 1.3 | 97 | <0.47 | <0.47 | 19 | 6.2 | 13 | 8.0 | <0.16 | <0.93 | 7.4 | <2.8 | <0.47 | <2.8 | 41 | 36 |
| S9 | S9-30 | 30 | 01/20/2022 | <3.2 | <1.1 | 140 | <0.53 | <0.53 | 25 | 7.9 | 11 | 10 | <0.16 | <1.1 | 10 | <3.2 | <0.53 | <3.2 | 48 | 59 |
| S9 | S9-35 | 35 | 01/20/2022 | <2.9 | 1.3 | 89 | <0.49 | <0.49 | 28 | 11 | 4.6 | 12 | <0.16 | <0.98 | 11 | <2.9 | <0.49 | <2.9 | 51 | 110 |
| S9 | S9-40 | 40 | 01/20/2022 | <2.9 | <0.96 | 180 | <0.48 | <0.48 | 22 | 7.7 | 16 | 11 | <0.16 | <0.96 | 9.1 | <2.9 | <0.48 | <2.9 | 49 | 51 |
| S9 | S9-45 | 45 | 01/20/2022 | <2.9 | <0.95 | 130 | <0.48 | <0.48 | 25 | 6.4 | 10 | 9.2 | <0.15 | <0.95 | 7.7 | <2.9 | <0.48 | <2.9 | 55 | 44 |
| *DTSC-SL - Residential Soil* $^{1}$ | | | | *-* | *0.11*** | *-* | *16** | *910* | *-* | *-* | *-* | *80** | *1** | *-* | *820** | *-* | *-* | *-* | *-* | *-* |
| *DTSC-SL - Commercial/Industrial Soil* $^{1}$ | | | | *-* | *0.36*** | *-* | *230** | *4,000* | *-* | *-* | *-* | *500** | *4.4** | *-* | *11,000** | *-* | *-* | *-* | *-* | *-* |
| *EPA - RSL - Residential Soil* $^{2}$ | | | | *31** | *0.68*** | *15,000** | *160* | *7* | *-* | *23* | *3,100** | *400** | *11** | *390** | *1,500** | *390** | *390** | *0.78** | *390** | *23,000** |
| *EPA - RSL - Commercial/Industrial Soil* $^{2}$ | | | | *470** | *3.0*** | *220,000** | *2,300* | *100* | *-* | *350* | *47,000** | *800** | *46** | *5,800** | *22,000** | *5,800** | *5,800** | *12** | *5,800** | *350,000** |

**Notes:**

Samples analyzed by EPA Method 6010B & 7471A by Jones Environmental.

bgs = below ground surface

\- = no documented value

DTSC-SL = Department of Toxic Substance Control - Modified Screening Level

RSL = USEPA Regional Screening Level

Bold text indicates exceedance of DTSC-SL

Results for non-detect constituents are indicated as less than the reporting limit.

[1] Department of Toxic Substance Control, Human Health Risk Assessment Note Number 3. Screening Level, Cancer End Point (DTSC 2022)

[2] Environmental Protection Agency, Regional Screening Level (November 2022)

*non-cancer hazard used where no value is listed for cancer risk

**Southern California Background level of 12 mg/kg used as screening level for arsenic (DTSC HERO Note 11)

# Table 6. Perchlorate in Soil Samples

| Sample Location | Sample ID | Sample Depth (feet bgs) | Sample Date | Perchlorate |
|---|---|---|---|---|
| | | | | micrograms per kilogram (mg/Kg) |
| S4 | S4-0.5 | 0.5 | 1/15/2022 | <0.040 |
| S4 | S4-5 | 5 | 1/15/2022 | <0.040 |
| S4 | S4-10 | 10 | 1/15/2022 | <0.040 |
| S4 | S4-15 | 15 | 1/15/2022 | <0.040 |
| *DTSC-SL - Residential Soil* [1] | | | | -- |
| *DTSC-SL - Commercial/Industrial Soil* [1] | | | | -- |
| *EPA - RSL - Residential Soil* [2] | | | | *55* |
| *EPA - RSL - Commercial/Industrial Soil* [2] | | | | *820* |

**Notes:**

Samples analyzed by EPA Method 314.0 by Enthalpy Analytical

bgs = below ground surface

RSL = USEPA Regional Screening Level

DTSC-SL = Department of Toxic Substance Control - Modified Screening Level

- = no documented value

[1] Department of Toxic Substance Control, Human Health Risk Assessment Note Number 3. Screening Level, Cancer End Point (DTSC 2022)

[2] Environmental Protection Agency, Regional Screening Level (May 2022)

## Table 7. Volatile Organic Compounds in Soil Vapor Samples

| Sample Location | Sample ID | Sample Depth (feet bgs) | Sample Date | Benzene | Chloroform | Ethylbenzene | 4-Isopropyltoluene | Tetrachloroethene (PCE) | Toluene | Trichlorofluoromethane | 1,2,4-Trimethylbenzene | m,p-Xylene | 0-Xylene | Gasoline Range Organics (C4-C12) | n-Pentane* | n-Hexane* | n-Heptane* | All Other VOCs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | micrograms per cubic meter ($\mu g/m^3$) | | | | | | | | | | | | | | |
| S1 | SV1-5 | 5 | 1/15/2022 | <8 | <8 | <8 | <8 | <8 | 36 | <16 | <8 | <16 | <8 | <2,000 | <80 | <80 | <80 | ND |
| S1 | SV1-15 | 15 | 1/15/2022 | <8 | <8 | <8 | <8 | <8 | 106 | <16 | <8 | <16 | <8 | <2,000 | <80 | <80 | <80 | ND |
| S2 | SV2-5 | 5 | 1/15/2022 | <8 | <8 | <8 | <8 | <8 | 46 | <16 | <8 | <16 | <8 | <2,000 | <80 | <80 | <80 | ND |
| S2 | SV2-10 | 10 | 1/15/2022 | <8 | <8 | <8 | <8 | <8 | 34 | <16 | <8 | <16 | <8 | <2,000 | <80 | <80 | <80 | ND |
| S3 | SV3-5 | 5 | 1/15/2022 | <8 | <8 | <8 | <8 | <8 | 72 | <16 | <8 | 13J | <8 | <2,000 | <80 | <80 | <80 | ND |
| S3 | SV3-10 | 10 | 1/15/2022 | <8 | <8 | <8 | <8 | <8 | 159 | <16 | <8 | <16 | <8 | <2,000 | <80 | <80 | <80 | ND |
| S4 | SV4-5 | 5 | 1/15/2022 | **17** | **28** | 19 | 21 | **41** | 236 | <16 | 27 | 100 | 29 | **388,000** | <80 | <80 | <80 | ND |
| S4 | SV4-5(REP) | 5 | 1/15/2022 | **19** | **30** | 23 | 26 | **49** | 262 | <16 | 30 | 110 | 31 | **418,000** | <80 | <80 | <80 | ND |
| S4 | SV4-15 | 15 | 1/15/2022 | **32** | <8 | <8 | <8 | **18** | 95 | <16 | 9 | 32 | <8 | <2,000 | <80 | <80 | <80 | ND |
| S5 | SV5-5 | 5 | 1/15/2022 | **12** | <8 | <8 | <8 | **24** | 101 | 22 | <8 | 19 | 9 | **34,900** | <80 | <80 | <80 | ND |
| S5 | SV5-15 | 15 | 1/15/2022 | <8 | <8 | <8 | 10 | 11 | 32 | 26 | <8 | <16 | <8 | <2,000 | <80 | <80 | <80 | ND |
| S6 | SV6-5 | 5 | 1/15/2022 | **11** | <8 | <8 | <8 | <8 | 77 | <16 | <8 | 25 | <8 | **30,600** | <80 | <80 | <80 | ND |
| S6 | SV6-15 | 15 | 1/15/2022 | **16** | <8 | <8 | <8 | <8 | 123 | <16 | <8 | <16 | <8 | <2,000 | <80 | <80 | <80 | ND |
| S7 | SV7-5 | 5 | 1/15/2022 | **16** | **17** | <8 | <8 | <8 | 121 | 20 | <8 | <16 | 9 | **35,400** | <80 | <80 | <80 | ND |
| S7 | SV7-15 | 15 | 1/15/2022 | **42** | <8 | <8 | <8 | <8 | 94 | <16 | <8 | <16 | <8 | <2,000 | <80 | <80 | <80 | ND |
| *DTSC-Modified SL - Residential [1] (AF = 0.001)* | | | | *97* | - | - | - | *460* | *310,000* | *1,300,000* | - | - | - | - | - | - | - | *Varies* |
| *DTSC-Modified SL - Commercial/Industrial [1] (AF = 0.001)* | | | | *420* | - | - | - | *2,000* | *1,300,000* | *5,300,000* | - | - | - | - | - | - | - | *Varies* |
| *DTSC-Modified SL - Residential [1] (AF = 0.03)* | | | | *3.2* | - | - | - | *15* | *10,333* | *43,333* | - | - | - | - | - | - | - | *Varies* |
| *DTSC-Modified SL - Commercial/Industrial [1] (AF = 0.03)* | | | | *14* | - | - | - | *67* | *43,333* | *176,667* | - | - | - | - | - | - | - | *Varies* |
| *RSL - Resident Air [2] (AF = 0.001)* | | | | *360* | *120* | *1,100* | - | *11,000* | *5,200,000*** | - | *63,000*** | *100,000*** | *100,000*** | *420,000/63,000*** | *1,000,000*** | *730,000*** | *420,000*** | *Varies* |
| *RSL - Industrial Air [2] (AF = 0.001)* | | | | *1,600* | *530* | *4,900* | - | *47,000* | *22,000,000*** | - | *260,000*** | *440,000*** | *440,000*** | *1,800,000/260,000*** | *4,400,000*** | *3,100,000*** | *1,800,000*** | *Varies* |
| *RSL - Resident Air [2] (AF = 0.03)* | | | | *12* | *4* | *37* | - | *367* | *173,333*** | - | *2,100*** | *3,333*** | *3,333*** | *14,000/2,100*** | *33,333*** | *24,333*** | *14,000*** | *Varies* |
| *RSL - Industrial Air [2] (AF = 0.03)* | | | | *53* | *18* | *163* | - | *1,567* | *733,333*** | - | *8,667*** | *14,667*** | *14,667*** | *60,000/8,666*** | *14,667*** | *103,333*** | *60,000*** | *Varies* |
| *ESL - Residential Soil Gas [3]* | | | | | | | | | | | | | | *20,000* | | | | |
| *ESL - Commercial/Industrial Soil Gas [3]* | | | | | | | | | | | | | | *83,000* | | | | |

**Notes:**

Samples analyzed by EPA Method 8260B by Jones Environmental.

Bold text indicates exceedance of a screening level

bgs = below ground surface

VOC = volatile organic compound

ND = not detected above the reporting limit. See laboratory report for reporting limits.

J = value is less than the reporting limit but above the method detection limit.

DTSC-Modified SL = Department of Toxic Substance Control - Modified Screening Level

RSL = USEPA Regional Screening Level

\- = no documented value

Results for non-detect constituents are indicated as less than the reporting limit.

[1] Department of Toxic Substance Control, Human Health Risk Assessment Note Number 3. Screening Level, Cancer End Point (DTSC 2022). Ambient air cancer endpoint divided by an attenuation factor of 0.03 to estimate soil vapor cancer endpoint.

[2] Environmental Protection Agency, Regional Screening Level (November 2022)

[3] San Francisco Regional Water Quality Control Board, Envrionmental Screeening Level (July 2019)

*Tracer used during sampling

**Non-cancer hazard RSL used in the absence of a cancer risk RSL.

*** Fractionated TPH Aliphatic/Aromatic; RSLs for Aromatic Medium were used since Aromatic Low concentrations are no longer presented in the RSL Summary Table.

Carbon ranges for RSL TPH Low Aliphatics (C6-C8) and Low/Medium Aromatics (C6-C8/C9-C10) are different from Gasoline Range Organics (C4-C12) reported by the laboratory.

# Table 8. Total Petroleum Compounds in Groundwater Samples

| Sample Location | Sample ID | Sample Date | Gasoline Range Organics (C4-C12) | Diesel Range Organics (C13-C22) | Oil Range Organics (C23-C40) |
|---|---|---|---|---|---|
| | | | micrograms per liter (µg/L) | | |
| S8 | S8-GW | 1/19/2021 | <50 | 0.096 | <0.28 |
| S8 | S10-GW (Duplicate) | 1/19/2021 | <50 | 0.13 | <0.28 |
| S9 | S9-GW | 1/20/2021 | <50 | 0.28 | <0.28 |
| *CA MCL* | | | - | - | - |
| *Tier 1 ESL* [1] | | | *100* | *100* | - |

**Notes:**

Samples analyzed by EPA Method 8015B by Enthalpy Analytical

CA MCL = California Maximum Contaminant Level

- = no documented value

Results for non-detect constituents are indicated as less than the reporting limit.

[1] San Francisco Bay Regional Water Quality Control Board, 2019 Rev. 2, Tier 1 ESLs (Fry and others , 2019)

# Table 9. Votatile Organic Compunds in Groundwater Samples

| Sample Location | Sample ID | Sample Date | All VOCs |
|---|---|---|---|
| | | | micrograms per liter (µg/L) |
| S8 | S8-GW | 1/19/2021 | ND |
| S8 | S10-GW (Duplicate) | 1/19/2021 | ND |
| S9 | S9-GW | 1/20/2021 | ND |
| *CA MCL* | | | *Varies* |

**Notes:**

Samples analyzed by EPA Method 8260B by Enthalpy Analytical

VOC = Volatile Organic Compounds

ND = not detected above the reporting limit. See lab report for reporting limits.

CA MCL = California Maximum Contaminant Level

# Table 10. Dissolved Metals in Groundwater Samples

| Sample Location | Sample ID | Sample Date | Antimony | Arsenic | Barium | Beryllium | Cadmium | Chromium | Cobalt | Copper | Lead | Mercury | Molybdenum | Nickel | Selenium | Silver | Thallium | Vanadium | Zinc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | milligrams per kilogram (mg/L) | | | | | | | | | | | | | | | | |
| S8 | S8-GW | 1/19/2022 | <0.030 | <0.010 | 0.30 | <0.0050 | <0.0050 | <0.010 | 0.0051 | <0.010 | <0.010 | <0.0004 | 0.011 | 0.017 | <0.030 | <0.0050 | <0.050 | <0.010 | <0.050 |
| S8 | S10-GW (Duplicate) | 1/19/2022 | <0.030 | <0.010 | 0.29 | <0.0050 | <0.0050 | <0.010 | 0.0051 | <0.010 | <0.010 | <0.0004 | 0.016 | 0.022 | <0.030 | <0.0050 | <0.050 | <0.010 | <0.050 |
| S9 | S9-GW | 1/20/2022 | <0.030 | <0.010 | 0.23 | <0.0050 | <0.0050 | <0.010 | 0.0055 | <0.010 | <0.010 | <0.0004 | 0.030 | <0.010 | <0.030 | <0.0050 | <0.050 | <0.010 | <0.050 |
| *CA - MCL* | | | 0.006 | 0.010 | 1 | 0.004 | 0.005 | 0.05 | - | 1.3 | 0.015 | 0.002 | 0.1 | 0.1 | 0.05 | - | 0.002 | - | - |

**Notes:**

Samples analyzed by EPA Method 6010B & 7471A by Enthalpy Analytical

CA MCL = California Maximum Contaminant Level

- = no documented value

Results for non-detect constituents are indicated as less than the reporting limit.

# Table 11. Perchlorate in Groundwater Samples

| Sample Location | Sample ID | Sample Date | Perchlorate* |
|---|---|---|---|
| | | | micrograms per liter (µg/L) |
| S8 | S8-GW | 1/19/2021 | <8.0 |
| S8 | S10-GW (Duplicate) | 1/19/2021 | <8.0 |
| S9 | S9-GW | 1/20/2021 | <8.0 |
| *CA MCL* | | | 6 |

**Notes:**

Samples analyzed by EPA Method 314.0 by Enthalpy Analytical

CA MCL = California Maximum Contaminant Level

Results for non-detect constituents are indicated as less than the reporting limit.

*Laboratory Reporting Limit > Environmental Screening Level

# Table 12 - Risk Evaluation Calculations

| | Attenuation Factor | GRO (aliphatics) | GRO (aromatics) | Alternative GRO Using ESL | Benzene | Chloroform | Ethylbenzene | 4-Isopropyltoluene | PCE | Toluene | Trichloro-fluoromethane | 1,2,4- TMB | m,p-Xylene | o-Xylene | Total On-Site Sources | Alternative Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum Concentration Under the Proposed Building (µg/m$^3$) | | 26550 | 8850 | 35400 | 42 | 17 | 23 | <8 | <8 | 123 | 20 | 30 | 25 | 9 | | |
| Industrial Cancer Risk[1] | 0.001 | -- | -- | | 1.00E-07 | 3.21E-08 | 4.69E-09 | -- | -- | -- | -- | -- | -- | -- | 1E-07 | 1E-07 |
| Residential Cancer Risk[1] | | -- | -- | | 4.33E-07 | 1.42E-07 | 2.09E-08 | -- | -- | -- | -- | -- | -- | -- | 6E-07 | 6E-07 |
| Industrial Hazard Index[2] | | 0.015 | 0.034 | | 3.23E-03 | -- | -- | -- | -- | 9.46E-05 | 3.77E-06 | 1.15E-04 | 5.68E-05 | 2.05E-05 | 0.05 | 0.05 |
| Residential Hazard Index[2] | | 0.063 | 0.140 | | 1.35E-02 | -- | -- | -- | -- | 3.97E-04 | 1.54E-05 | 4.76E-04 | 2.50E-04 | 9.00E-05 | 0.2 | 0.2 |
| Industrial Cancer Risk[1] | 0.03 | -- | -- | | 3.00E-06 | 9.62E-07 | 1.41E-07 | -- | -- | -- | -- | -- | -- | -- | 4E-06 | 4E-06 |
| Residential Cancer Risk[1] | | -- | -- | | 1.30E-05 | 4.25E-06 | 6.27E-07 | -- | -- | -- | -- | -- | -- | -- | 2E-05 | 2E-05 |
| Industrial Hazard Index[2] | | 0.44 | 1.02 | 0.43[3] | 9.69E-02 | -- | -- | -- | -- | 2.84E-03 | 1.13E-04 | 3.46E-03 | 1.70E-03 | 6.14E-04 | 2 | 0.5 |
| Residential Hazard Index[2] | | 1.90 | 4.21 | 1.77[3] | 4.06E-01 | -- | -- | -- | -- | 1.19E-02 | 4.62E-04 | 1.43E-02 | 7.50E-03 | 2.70E-03 | 7 | 2 |

**Notes:**

[1] Estimated cancer risk calculated by dividing the maximum site concentration by the cancer soil vapor screening level (SVSL; Table 7) and multiplied by the de minimis risk value 1x10-6

[2] Estimated hazard index calculated by dividing the maximum site concentration by the non-cancer soil vapor screening level (SVSL; Table 7) and multiplied by the de minimis hazard index of 1

[3] Alternative estimated hazard index calculated for GRO by dividing maximum bulk TPH GRO concentration by the soil gas ESL for bulk TPH Gasoline

-- - Not applicable

µg/m$^3$ - microgram per cubic meter

GRO - gasoline range organics

GRO aliphatics estimate 75% sample detection

GRO aromatics estimate 25% of the sample detection

PCE - Tetrachloroethylene

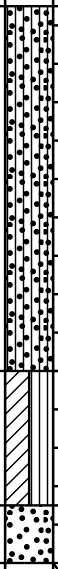
TMB - Trimethylbenzene

# Appendix C

## Lithologic Logs

| | |
|---|---|
| Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project** | # Log of Boring S1 |
| Project Location: **Norco, California** | **Sheet 1 of 1** |
| Project Number: **13705** | |

| | | |
|---|---|---|
| Date(s) Drilled **January 15, 2022** | Logged By **Hugh McManus** | Checked By **Susie Smith** |
| Drilling Method **Direct Push** | Drill Bit Size/Type **2.25 inch** | Total Depth of Borehole **15 feet** |
| Drill Rig Type **Geoprobe 7822DT** | Drilling Contractor **Millennium Environmental** | Approximate Surface Elevation **Not recorded** |
| Groundwater Level and Date Measured **Not encountered** | Sampling Method(s) **Plastic sleeves** | Hammer Data **Not applicable** |
| Borehole Backfill **Bentonite** | Location **Approximately 60 feet north of the Project site** | |



| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 0 | | S1-0.5 | | SM | | Silty SAND with clay, Brown (10YR 4/3), fine to medium, subangular, slightly moist, dense, no odor, no staining, 50% sand, 35% silt, 15% clay. | 7:51 |
| 5 | | S1-5 | | SM | | Same as above. | 7:53 |
| 10 | | S1-10 | | CL-ML | | Sandy SILT/Sandy CLAY, dark yellowish brown (10YR 4/4), moist, dense, some plasticity, fine to medium sand, mostly fine, no odor, no staining. | 7:55 |
| | | | | SP | | Poorly graded SAND with silt, yellowish brown (10YR 5/6), fine to medium, mostly fine, dry, loose, no odor, no staining, 90% sand, 10% silt. | |
| 15 | | S1-15 | | | | Bottom of borehole | 7:57 |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

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Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project**

Project Location: **Norco, California**

Project Number: **13705**

# Log of Boring S2

## Sheet 1 of 1

| | | |
|---|---|---|
| Date(s) Drilled **January 15, 2022** | Logged By **Hugh McManus** | Checked By **Susie Smith** |
| Drilling Method **Direct Push** | Drill Bit Size/Type **2.25 inch** | Total Depth of Borehole **15 feet** |
| Drill Rig Type **Geoprobe 7822DT** | Drilling Contractor **Millennium Environmental** | Approximate Surface Elevation **Not recorded** |
| Groundwater Level and Date Measured **Not encountered** | Sampling Method(s) **Plastic sleeves** | Hammer Data **Not applicable** |
| Borehole Backfill **Bentonite** | Location **Approximately 70 feet southwest of the western boundary of the Project site** | |

| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 0 | | S2-0.5 | | SM | | Silty SAND with clay, brown (10YR 4/3), fine to coarse, mostly fine to medium, some gravel, subrounded to subangular, dense, dry, no odor, no staining, 60% sand, 25% silt, 15% clay. | 11:51 |
| | | | | SW | | Well graded SAND, pale brown (10YR 6/3), fine to coarse with gravel, subangular, dense but crumbles, brittle, dry, no odor, no staining, color change at ~5' to light gray (10YR 7/1). | |
| 5 | | S2-5 | | | | | 11:52 |
| | | S2-8 | | | | | 11:53 |
| 10 | | | | | | Bottom of borehole | |
| 15 | | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

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Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project**

Project Location: **Norco, California**

Project Number: **13705**

# Log of Boring S3

## Sheet 1 of 1

| | | |
|---|---|---|
| Date(s) Drilled **January 15, 2022** | Logged By **Hugh McManus** | Checked By **Susie Smith** |
| Drilling Method **Direct Push** | Drill Bit Size/Type **2.25 inch** | Total Depth of Borehole **15 feet** |
| Drill Rig Type **Geoprobe 7822DT** | Drilling Contractor **Millennium Environmental** | Approximate Surface Elevation **Not recorded** |
| Groundwater Level and Date Measured **Not encountered** | Sampling Method(s) **Plastic sleeves** | Hammer Data **Not applicable** |
| Borehole Backfill **Bentonite** | Location **Approximately 160 feet south west of the western boundary of the Project site** | |

| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 0 | | SV-0.5 | | SM | ▒ | Silty SAND, brownish yellow (10YR 6/6) fine to coarse, mostly fine, subangular, dry, trace clay, no odor, no staining, 75% sand, 20% silt, 5% clay. | 8:50 |
| 5 | | SV-5 | | SW | ⁘ | Well graded SAND, light olive gray (5Y 6/2), fine to coarse brittle sand, crumbles in hand to silt, subangular to angular, dry, no odor, no staining. Color change at ~7 feet to olive yellow (2.5Y 6/6). | 8:51 |
| 10 | | SV-10 | | | | Bottom of borehole | 8:52 |
| 15 | | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

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Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project**

Project Location: **Norco, California**

Project Number: **13705**

# Log of Boring S4

## Sheet 1 of 1

| | | |
|---|---|---|
| Date(s) Drilled **January 15, 2022** | Logged By **Hugh McManus** | Checked By **Susie Smith** |
| Drilling Method **Direct Push** | Drill Bit Size/Type **2.25 inch** | Total Depth of Borehole **15 feet** |
| Drill Rig Type **Geoprobe 7822DT** | Drilling Contractor **Millennium Environmental** | Approximate Surface Elevation **Not recorded** |
| Groundwater Level and Date Measured **Not encountered** | Sampling Method(s) **Plastic sleeves** | Hammer Data **Not applicable** |
| Borehole Backfill **Bentonite** | Location **Approximately 55 feet south of the southern boundary of the Project site** | |

| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 0 | | S4-0.5 | | SM | | Silty SAND with clay, dark grayish brown (10YR 4/2), fine to coarse, mostly fine to medium, dense, dry, no odor, no staining, 70% sand, 25% silt, 5% clay. | 9:35 |
| 5 | | S4-5 | | SM | | Silty SAND with clay, brown (10YR 4/3), fine to coarse, subangular, dense, moist, no odor, no staining, 70% sand, 25% silt, 5% clay. | 9:36 |
| 10 | | S4-10 | | SP | | Poorly graded SAND with silt, dark yellowish brown (10YR 4/4), fine to medium, subangular, soft, moist, no odor, no staining, 85% sand, 15% silt. | 9:37 |
| | | | | SP | | Poorly graded SAND, dark gray (10YR 4/1), fine to medium, subangular, soft, moist, no odor, darker color, 85% sand, 15% silt. | |
| 15 | | S4-15 | | | | Bottom of borehole | 9:38 |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project**

Project Location: **Norco, California**

Project Number: **13705**

# Log of Boring S5

## Sheet 1 of 1

| | | |
|---|---|---|
| Date(s) Drilled **January 15, 2022** | Logged By **Hugh McManus** | Checked By **Susie Smith** |
| Drilling Method **Direct Push** | Drill Bit Size/Type **2.25 inch** | Total Depth of Borehole **15 feet** |
| Drill Rig Type **Geoprobe 7822DT** | Drilling Contractor **Millennium Environmental** | Approximate Surface Elevation **Not recorded** |
| Groundwater Level and Date Measured **Not encountered** | Sampling Method(s) **Plastic sleeves** | Hammer Data **Not applicable** |
| Borehole Backfill **Bentonite** | Location **Approximately 120 feet east of the estern boundary of the Project site.** | |

| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 0 | | S5-0.5 | | | | | 10:10 |
| | | | | Fill | ▨ | Fill soil with roots | |
| 5 | | S5-5 | | SP | ⁘ | Poorly graded SAND with silt, yellowish brown (10YR 5/4), fine to medium, subangular, moist, soft, no odor, no staining, 85% sand, 15% silt. | 10:11 |
| 10 | | S5-10 | | SP | ⁘ | Poorly graded SAND with silt, very pale brown (10YR 7/4), fine to medium, mostly medium, subangular, loose, dry, no odor, no staining. 90% sand, 10% silt. | 10:12 |
| 15 | | S5-15 | | | | Bottom of borehole | 10:13 |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

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Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project**

Project Location: **Norco, California**

Project Number: **13705**

# Log of Boring S6

## Sheet 1 of 1

| | | |
|---|---|---|
| Date(s) Drilled **January 15, 2022** | Logged By **Hugh McManus** | Checked By **Susie Smith** |
| Drilling Method **Direct Push** | Drill Bit Size/Type **2.25 inch** | Total Depth of Borehole **15 feet** |
| Drill Rig Type **Geoprobe 7822DT** | Drilling Contractor **Millennium Environmental** | Approximate Surface Elevation **Not recorded** |
| Groundwater Level and Date Measured **Not encountered** | Sampling Method(s) **Plastic sleeves** | Hammer Data **Not applicable** |
| Borehole Backfill **Bentonite** | Location **Southern end of the Project site (within the Project footprint)** | |

| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 0 | | S6-0.5 | | SM | | Silty SAND, dark brown (10YR 3/3), fine to coarse, angular to subangular, moist, dense, brittle, no odor, no staining, 85% sand, 25% silt. | 8:07 |
| 5 | | S6-5 | | SM | | Silty SAND, brown (10YR 5/3), fine to coarse with gravel, angular to subangular, cemented dry, dense, no odor, no staining, 85% sand, 25% silt. | 8:08 |
| 10 | | S6-10 | | SP | | Poorly graded SAND with silt, yellowish brown (10YR 5/6), fine to medium, subangular, loose, dry, soft, 90% sand, 10% silt. | 8:09 |
| 15 | | S6-15 | | | | Bottom of borehole | 8:10 |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

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| | |
|---|---|
| Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project** | # Log of Boring S7 |
| Project Location: **Norco, California** | **Sheet 1 of 1** |
| Project Number: **13705** | |

| | | |
|---|---|---|
| Date(s) Drilled **January 15, 2022** | Logged By **Hugh McManus** | Checked By **Susie Smith** |
| Drilling Method **Direct Push** | Drill Bit Size/Type **2.25 inch** | Total Depth of Borehole **15 feet** |
| Drill Rig Type **Geoprobe 7822DT** | Drilling Contractor **Millennium Environmental** | Approximate Surface Elevation **Not recorded** |
| Groundwater Level and Date Measured **Not encountered** | Sampling Method(s) **Plastic sleeves** | Hammer Data **Not applicable** |
| Borehole Backfill **Bentonite** | Location **Northern end of the Project site (within the Project footprint)** | |

| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 0 | | S7-0.5 | | SM | | Silty SAND with clay, dark yellowish brown (10YR 4/4), fine to coarse, subangular, moist, dense, no odor, no staining, 70% sand, 20%-25% silt, 10%-5% clay. | 9:13 |
| 5 | | S7-5 | | SP | | Poorly graded SAND with silt, yellowish brown (10YR 5/4), fine to medium, subangular, dry, loose, no odor, no staining, 90% sand, 10% silt. | 9:14 |
| 10 | | S7-10 | | CL | | Sandy CLAY, very dark grayish brown (10YR 3/2), fine to medium, subangular, dense, moist, hard, no odor, no staining, 60% clay, 40% sand. | 9:15 |
| | | | | SP | | Poorly graded SAND, gray (10YR 5/1), fine to medium, subangular, soft, dry, no odor, no staining. | |
| 15 | | S7-15 | | | | Bottom of borehole | 9:16 |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

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| | |
|---|---|
| Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project** | |
| Project Location: **Norco, California** | **Log of Boring S8** |
| Project Number: **13705** | **Sheet 1 of 2** |

| | | |
|---|---|---|
| Date(s) Drilled **January 19, 2022** | Logged By **Hugh McManus** | Checked By **Susie Smith** |
| Drilling Method **Hollow Stem Auger** | Drill Bit Size/Type **8 inch** | Total Depth of Borehole **45 feet** |
| Drill Rig Type **CME 95** | Drilling Contractor **BC2 Environmental** | Approximate Surface Elevation **Not recorded** |
| Groundwater Level and Date Measured **35 feet bgs** | Sampling Method(s) **Split spoon** | Hammer Data **Wire Line** |
| Borehole Backfill **Neat Cement** | Location **Southern end of the Project site (within the Project footprint)** | |

| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 0 | | | | SM | | Silty SAND with clay, olive brown (10YR 4/3), fine to coarse, subangular, moist, soft, some plasticity, no odor, no staining, 50% sand, 25%-30% silt, 10-15% clay. | |
| 5 | | S8-5 | 14<br>18<br>20 | SM | | Silty SAND, yellowish red (5YR 5/6), fine to coarse, subangular, brittle, moist, some gravel, trace clay, no odor, no staining, 75% sand, 20% silt, 5% clay. | 8:55 |
| 10 | | S8-10 | 11<br>13<br>23 | SM | | Silty SAND, olive (5Y 5/3), fine to coarse, subangular, moist, no odor, no staining, few gravels, 60% sand, 40% silt. | 9:00 |
| 15 | | S8-15 | 6<br>12<br>19 | SW | | Well graded SAND, very dark gray (5Y 3/1), fine to coarse with few gravel, angular, cemented, white deposits, brittle, no odor, no staining. | 9:05 |
| 20 | | S8-20 | 10<br>17<br>22 | SM | | Silty SAND, olive (5Y 5/3), fine to coarse, subangular, moist, no odor, no staining, 60% sand, 40% silt. | 9:15 |
| 25 | | S8-25 | 19<br>16<br>23 | SW | | Well graded SAND with silt, very dark gray (5Y 3/1), fine to coarse angular to subangular, moist, large clast that are brittle and crumble, trace gravel, 85% sand, 10% silt, 5% gravel. | 9:20 |
| 30 | | | | | | | |

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Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project**
Project Location: **Norco, California**
Project Number: **13705**

# Log of Boring S8

## Sheet 2 of 2

| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 30 | | S8-30 | 19<br>28<br>33 | SW | | Well graded SAND, very dark gray (5Y 3/1), fine to coarse, subangular to subrounded, wet, granitic composition, no odor, no staining. | 9:25 |
| 35 | | S8-35 | 18<br>26<br>31 | SW | | ▼ Well graded SAND, very dark gray (5Y 3/1), fine to coarse, subangular to subrounded, wet, granitic composition, no odor, no staining. | 9:30 |
| 40 | | S8-40 | 7<br>15<br>19 | SM | | Silty SAND, olive (5Y 5/4), fine to coarse, subangular, no plasticity, saturated, no odor, no staining, 75%-80% sand, 20% silt. | 9:55 |
| 45 | | S8-45 | 10<br>16<br>22 | | | Bottom of borehole | 10:05 |
| 50 | | | | | | | |
| 55 | | | | | | | |
| 60 | | | | | | | |
| 65 | | | | | | | |

Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project**

Project Location: **Norco, California**

Project Number: **13705**

# Log of Boring S9

## Sheet 1 of 2

| | | |
|---|---|---|
| Date(s) Drilled **January 20, 2022** | Logged By **Hugh McManus** | Checked By **Susie Smith** |
| Drilling Method **Hollow Stem Auger** | Drill Bit Size/Type **8 inch** | Total Depth of Borehole **45 feet** |
| Drill Rig Type **CME 75 HT** | Drilling Contractor **BC2 Environmental** | Approximate Surface Elevation **Not recorded** |
| Groundwater Level and Date Measured **41.5 feet bgs** | Sampling Method(s) **Split spoon** | Hammer Data **Wire Line** |
| Borehole Backfill **Neat Cement** | Location **Northern end of the Project site (within the Project footprint)** | |

| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 0 | | | | SM | | Silty SAND, olive brown (10YR 4/3), fine to coarse, subangular, moist, trace surrounded gravel, trace clay nodules, no odor, no staining, 50% sand, 35% silt, 1% gravel, 4% clay. | |
| 5 | | S9-5 | 24<br>50 | SM | | Silty SAND, olive gray (5YR 4/2), fine to coarse, mostly fine to medium, angular to subangular, moist, loose, no odor, no staining, 65% sand, 35% silt. | 8:55 |
| 10 | | S9-10 | 75 | SP | | Poorly graded SAND with silt, olive (5YR 4/4), fine to medium, mostly fine, subangular, moist, no odor, no staining, 85% sand, 15% silt. | 9:05 |
| 15 | | S9-15 | 32<br>50 | SW | | Well graded SAND with silt, olive (5Y 4/3), angular to subangular, moist, dense but crumbles to sand, white deposits, no odor, no staining, 85% sand, 15% silt. | 9:15 |
| 20 | | S9-20 | 37<br>50 | SW | | Well graded SAND with silt, olive (5Y 4/3), angular to subangular, moist, dense but crumbles to sand, white deposits, no odor, no staining, 85% sand, 15% silt. | 9:25 |
| 25 | | S9-25 | 27<br>50 | SW | | Well graded SAND with silt, olive (5Y 4/3), angular to subangular, moist, dense but crumbles to sand, white deposits, trace gravel, no odor, no staining, 85% sand, 15% silt. | 9:35 |
| 30 | | | | | | | |

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Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project**

Project Location: **Norco, California**

Project Number: **13705**

# Log of Boring S9

## Sheet 2 of 2

| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 30 | | S9-30 | 22<br>31<br>50 | SW | | Well graded SAND with silt, olive (5Y 4/3), angular to subangular, moist, dense but crumbles to sand, white deposits, trace gravel, no odor, no staining, 85% sand, 15% silt. | 10:00 |
| 35 | | S9-35 | 15<br>19<br>26 | SW | | Well graded SAND with silt, dark olive (5Y 3/2), angular to subangular, mafic minerals, moist, dense in sampler but crumbles, brittle, no odor, no staining, 90% sand, 10% silt. | 10:15 |
| 40 | | S9-40 | 17<br>23<br>26 | SW | | Well graded SAND with silt, dark olive (5Y 3/2), angular to subangular, mafic minerals, wet, dense in sampler but crumbles, brittle, no odor, no staining, 90% sand, 10% silt. ▼ | 10:25 |
| 45 | | S9-45 | | | | Bottom of borehole | 10:40 |
| 50 | | | | | | | |
| 55 | | | | | | | |
| 60 | | | | | | | |
| 65 | | | | | | | |

P:\400.Hydrogeology\13705 RCCD Norco Phase IIs\Work Plans\CHP+K\Subsurface Investigation\Report\Appendices\Appendix C - Litho Logs\NorcoBoringLogs.bg4[EnviroLog.tpl]

Project: **Subsurface Investigation - Norco College, Center for Human Performance + Kinesiology Project**
Project Location: **Norco, California**
Project Number: **13705**

# Key to Log of Boring

**Sheet 1 of 1**

| Depth (feet) | Sample Type | Sample Number | Sampling Resistance, blows/ft | Material Type | Graphic Log | MATERIAL DESCRIPTION | REMARKS AND OTHER TESTS |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

## COLUMN DESCRIPTIONS

1. Depth (feet): Depth in feet below the ground surface.
2. Sample Type: Type of soil sample collected at the depth interval shown.
3. Sample Number: Sample identification number.
4. Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.
5. Material Type: Type of material encountered.
6. Graphic Log: Graphic depiction of the subsurface material encountered.
7. MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.
8. REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel.

## FIELD AND LABORATORY TEST ABBREVIATIONS

CHEM: Chemical tests to assess corrosivity
COMP: Compaction test
CONS: One-dimensional consolidation test
LL: Liquid Limit, percent
PI: Plasticity Index, percent
SA: Sieve analysis (percent passing No. 200 Sieve)
UC: Unconfined compressive strength test, Qu, in ksf
WA: Wash sieve (percent passing No. 200 Sieve)

## MATERIAL GRAPHIC SYMBOLS

▥ Silty SAND (SM)

⁘ Poorly graded SAND (SP)

⁙ Well graded SAND (SW)

## TYPICAL SAMPLER GRAPHIC SYMBOLS

▨ Auger sampler
▦ Bulk Sample
⧗ 3-inch-OD California w/ brass rings
▩ CME Sampler
▯ Grab Sample
■ 2.5-inch-OD Modified California w/ brass liners
◨ Pitcher Sample
▧ 2-inch-OD unlined split spoon (SPT)
⊠ Shelby Tube (Thin-walled, fixed head)

## OTHER GRAPHIC SYMBOLS

▽ Water level (at time of drilling, ATD)
▼ Water level (after waiting)
↓ Minor change in material properties within a stratum
– – Inferred/gradational contact between strata
—?— Queried contact between strata

## GENERAL NOTES

1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

P:\400.Hydrogeology\13705 RCCD Norco Phase IIs\Work Plans\CHP+K\Subsurface Investigation\Report\Appendices\Appendix C - Litho Logs\NorcoBoringLogs.bg4[EnviroLog.tpl]

**Figure B-1**

# Appendix D

## Laboratory Analytical Reports

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number: 456907
Report Level: II
Report Date: 01/25/2022

**Analytical Report** *prepared for:*

Susan Smith
Dudek
605 3rd Street
Encinitas, CA 92024

Project: NORCO COLLEGE - 13705, Norco College CHP&K, Norco, CA

*Authorized for release by:*

Patty Mata, Project Manager
patty.mata@enthalpy.com

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

ENTHALPY ANALYTICAL

# Sample Summary

Susan Smith
Dudek
605 3rd Street
Encinitas, CA 92024

Lab Job #: 456907
Project No: NORCO COLLEGE
Location: 13705, Norco College CHP&K, Norco, CA
Date Received: 01/17/22

| Sample ID | Lab ID | Collected | Matrix |
|---|---|---|---|
| S1-0.5 | 456907-001 | 01/15/22 07:51 | Soil |
| S1-5 | 456907-002 | 01/15/22 07:53 | Soil |
| S1-10 | 456907-003 | 01/15/22 07:55 | Soil |
| S1-15 | 456907-004 | 01/15/22 07:57 | Soil |
| S2-0.5 | 456907-005 | 01/15/22 11:51 | Soil |
| S2-5 | 456907-006 | 01/15/22 11:52 | Soil |
| S2-8 | 456907-007 | 01/15/22 11:53 | Soil |
| S3-0.5 | 456907-008 | 01/15/22 08:50 | Soil |
| S3-5 | 456907-009 | 01/15/22 08:51 | Soil |
| S3-10 | 456907-010 | 01/15/22 08:52 | Soil |
| S4-0.5 | 456907-011 | 01/15/22 09:35 | Soil |
| S4-5 | 456907-012 | 01/15/22 09:36 | Soil |
| S4-10 | 456907-013 | 01/15/22 09:37 | Soil |
| S4-15 | 456907-014 | 01/15/22 09:38 | Soil |
| S5-0.5 | 456907-015 | 01/15/22 10:10 | Soil |
| S5-5 | 456907-016 | 01/15/22 10:11 | Soil |
| S5-10 | 456907-017 | 01/15/22 10:12 | Soil |
| S5-15 | 456907-018 | 01/15/22 10:13 | Soil |
| S6-0.5 | 456907-019 | 01/15/22 08:07 | Soil |
| S6-5 | 456907-020 | 01/15/22 08:08 | Soil |
| S6-10 | 456907-021 | 01/15/22 08:09 | Soil |
| S6-15 | 456907-022 | 01/15/22 08:10 | Soil |
| S7-0.5 | 456907-023 | 01/15/22 09:13 | Soil |
| S7-5 | 456907-024 | 01/15/22 09:14 | Soil |
| S7-10 | 456907-025 | 01/15/22 09:15 | Soil |
| S7-15 | 456907-026 | 01/15/22 09:16 | Soil |
| S8-5 | 456907-027 | 01/15/22 10:26 | Soil |

# Case Narrative

Dudek
605 3rd Street
Encinitas, CA 92024
Susan Smith

Lab Job Number: 456907
Project No: NORCO COLLEGE
Location: 13705, Norco College CHP&K, Norco, CA
Date Received: 01/17/22

This data package contains sample and QC results for twenty seven soil samples, requested for the above referenced project on 01/17/22. The samples were received cold and intact.

**Volatile Organics by GC/MS (EPA 8260B):**
Methylene chloride was detected above the RL in the method blank for batch 281966; this analyte was not detected in samples at or above the RL. No other analytical problems were encountered.

**Metals (EPA 6010B and EPA 7471A):**
Low recoveries were observed for antimony in the MS/MSD of S1-0.5 (lab # 456907-001); the LCS was within limits, and the associated RPD was within limits. Low recoveries were observed for antimony in the MS/MSD of S6-10 (lab # 456907-021); the LCS was within limits, and the associated RPD was within limits. High recovery was observed for barium in the MSD of S6-10 (lab # 456907-021); the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

**Perchlorate by Ion Chromatography (EPA 314.0):**
Low recovery was observed for perchlorate in the MSD of S4-5 (lab # 456907-012); the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

**ENTHALPY**
ANALYTICAL

**Enthalpy Analytical - Orange**
931 W. Barkley Avenue, Orange, CA 92868
Phone 714-771-6900

**Chain of Custody Record**
Lab No: 456907
Page: 1 of 3

| **Turn Around Time (rush by advanced notice only)** | | | | | |
|---|---|---|---|---|---|
| Standard: | ✓ | 5 Day: | | 3 Day: | |
| 2 Day: | | 1 Day: | | Custom TAT: | |

**Matrix:** A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = $HNO_3$ 4 = $H_2SO_4$ 5 = NaOH 6 = Other

**Sample Receipt Temp:**
(lab use only)

| CUSTOMER INFORMATION | | PROJECT INFORMATION | |
|---|---|---|---|
| Company: | DUDEK | Quote #: | |
| Report To: | SUSIE SMITH | Proj. Name: | NORCO COLLEGE CHP+K |
| Email: | SSMITH@DUDEK.COM | Proj. #: | 13705 |
| Address: | 605 3RD STREET | P.O. #: | |
| | ENCINITAS CA 92024 | Address: | 2001 3RD STREET<br>NORCO CA 92860 |
| Phone: | 760-840-7526 | Global ID: | |
| Fax: | | Sampled By: | HUGH MCMANUS |

| | Sample ID | Sampling Date | Sampling Time | Matrix | Container No. / Size | Pres. | TPH-CARBON CHAIN 8015M | VOCS 8260B | TITLE 22 METALS 6010B/7471A | Test Instructions / Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S1-0.5 | 1/15/22 | 7:51 | S | 5-VOA<br>1-SLEEVE | Y | X | X | X | 1.4/2.8 |
| 2 | S1-5 | | 7:53 | S | | Y | X | X | X | |
| 3 | S1-10 | | 7:55 | S | | Y | X | X | X | |
| 4 | S1-15 | | 7:57 | S | | Y | X | X | X | |
| 5 | S2-0.5 | | 11:51 | S | | Y | X | X | X | |
| 6 | S2-5 | | 11:52 | S | | Y | X | X | X | |
| 7 | S2-8 | | 11:53 | S | | Y | X | X | X | |
| 8 | S3-0.5 | | 8:50 | S | | Y | X | X | X | |
| 9 | S3-5 | | 8:51 | S | | Y | X | X | X | Rec 6 km |
| 10 | S3-10 | | 8:52 | S | | Y | X | X | X | 1/17/22 |

| | Signature | Print Name | Company / Title | Date / Time |
|---|---|---|---|---|
| 1 Relinquished By: | Hugh McMa | HUGH MCMANUS | DUDEK / GEOLOGIST | 1/17/22 / 855 |
| 1 Received By: | | Garrett Mike | EA-SD | 1/17/22 0855 |
| 2 Relinquished By: | Katie Payne | KATIE PAYNE | EA-SD | 1/17/22 1325 |
| 2 Received By: | | NELSON ESQUIVEL | EA | 1.17.22 1325 |
| 3 Relinquished By: | | NELSON ESQUIVEL | EA | 1.17.22 1632 |
| 3 Received By: | | | EA | 1.17.22 1632 |

EA 1.17.22 17:16

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**Enthalpy Analytical - Orange**

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

**Chain of Custody Record**

Lab No:

Page: 2 of 3

**Turn Around Time (rush by advanced notice only)**

| | | | | | |
|---|---|---|---|---|---|
| Standard: | ✓ | 5 Day: | | 3 Day: | |
| 2 Day: | | 1 Day: | | Custom TAT: | |

**Matrix:** A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = $HNO_3$ 4 = $H_2SO_4$ 5 = NaOH 6 = Other

**Sample Receipt Temp:**

(lab use only)

| CUSTOMER INFORMATION | | PROJECT INFORMATION | |
|---|---|---|---|
| Company: | DUDEK | Quote #: | |
| Report To: | SUSIE SMITH | Proj. Name: | NORCO COLLEGE CHP+K |
| Email: | SSMITH@DUDEK.COM | Proj. #: | 13705 |
| Address: | 605 3RD STREET | P.O. #: | |
| | ENCINITAS CA 92024 | Address: | 2001 3RD STREET |
| Phone: | 760-840-7525 | Global ID: | NORCO CA 92860 |
| Fax: | | Sampled By: | HUGH MCMANUS |

| | Sample ID | Sampling Date | Sampling Time | Matrix | Container No. / Size | Pres. | TPH - CARBON CHAIN 8015M | VOCs 8260B | TITLE 22 METALS 6010B/7471A | PERCHLORATE 314.1 | | | | | | | Test Instructions / Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | 1.4/28 |
| 1 | S4-0.5 | 11/15/22 | 9:35 | S | 5-VOA<br>1-SLEEVE | Y | X | X | X | X | | | | | | | |
| 2 | S4-5 | | 9:36 | S | | Y | X | X | X | X | | | | | | | |
| 3 | S4-10 | | 9:37 | S | | Y | X | X | X | X | | | | | | | |
| 4 | S4-15 | | 9:38 | S | | Y | X | X | X | X | | | | | | | |
| 5 | S5-0.5 | | 10:10 | S | | Y | X | X | X | | | | | | | | |
| 6 | S5-5 | | 10:11 | S | | Y | X | X | X | | | | | | | | |
| 7 | S5-10 | | 10:12 | S | | Y | X | X | X | | | | | | | | |
| 8 | S5-15 | | 10:13 | S | | Y | X | X | X | | | | | | | | |
| 9 | S6-0.5 | | 8:07 | S | | Y | X | X | X | | | | | | | | Rec: G.Kim EA<br>1/17/22 1710 |
| 10 | S6-5 | | 8:02 | S | | Y | X | X | X | | | | | | | | |

| | Signature | Print Name | Company / Title | Date / Time |
|---|---|---|---|---|
| 1 Relinquished By: | Hugh McManus | HUGH MCMANUS | DUDEK / GEOLOGIST | 1/17/22 / 8:55 |
| 1 Received By: | Katie | Garrett Mike | EA-SD | 1/17/22 0855 |
| 2 Relinquished By: | Katie Payne | KATIE PAYNE | EA-SD | 1/17/22 1325 |
| 2 Received By: | | NELSON ESQUIVEL | EA | 1-17-22 1325 |
| 3 Relinquished By: | | NELSON ESQUIVEL | EA | 1-17-27 1632 |
| 3 Received By: | | | EA | 1-17-27 1632 |
| | | | | 1-17-22 17:16 |

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## Chain of Custody Record

Lab No:

Page: 3 of 3

**Turn Around Time (rush by advanced notice only)**

| | | | | | |
|---|---|---|---|---|---|
| Standard: | ✓ | 5 Day: | | 3 Day: | |
| 2 Day: | | 1 Day: | | Custom TAT: | |

**Enthalpy Analytical - Orange**

931 W. Barkley Avenue, Orange, CA 92868

Phone 714-771-6900

Matrix: A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

Preservatives: 1 = $Na_2S_2O_3$ 2 = HCl 3 = $HNO_3$ 4 = $H_2SO_4$ 5 = NaOH 6 = Other

Sample Receipt Temp: (lab use only)

| CUSTOMER INFORMATION | | PROJECT INFORMATION | |
|---|---|---|---|
| Company: | DUDEK | Quote #: | |
| Report To: | SUSIE SMITH | Proj. Name: | NORCO COLLEGE CHP+A |
| Email: | SSMITH@DUDEK.COM | Proj. #: | 13705 |
| Address: | 605 3RD STREET | P.O. #: | |
| | ENCINITAS CA 92024 | Address: | 2001 3RD STREET NORCO CA 92860 |
| Phone: | 760-846-7526 | Global ID: | |
| Fax: | — | Sampled By: | HUGH McMANUS |

**Analysis Request** / **Test Instructions / Comments**

1.4/2.8

| | Sample ID | Sampling Date | Sampling Time | Matrix | Container No. / Size | Pres. | TPH CARBON CHAIN 8015M | VOCs 8260B | TITLE 22 METALS ~~6010B/7471A~~ | Test Instructions / Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S6-10 | 1/15/22 | 8:09 | S | 5-VOA<br>1-SLEEVE | Y | X | X | X | |
| 2 | S6-15 | | 8:10 | S | | Y | X | X | X | |
| 3 | S7-0.5 | | 9:13 | S | | Y | X | X | X | |
| 4 | S7-5 | | 9:14 | S | | Y | X | X | X | |
| 5 | S7-10 | | 9:15 | S | | Y | X | X | X | |
| 6 | S7-15 | | 9:16 | S | | Y | X | X | X | |
| 7 | S8-5 | | 10:26 | S | | Y | X | X | X | |
| 8 | | | | | | | | | | |
| 9 | | | | | | | | | | Rec: G Kim EA |
| 10 | | | | | | | | | | 1/17/22 (7/ |

| | Signature | Print Name | Company / Title | Date / Time |
|---|---|---|---|---|
| 1 Relinquished By: | | HUGH McMANUS | DUDEK / GEOLOGIST | 1/17/22 / 8:55 |
| 1 Received By: | | Garrett Mike | EA-SD | 1/17/22 0855 |
| 2 Relinquished By: | Katie Payne | KATIE PAYNE | EA-SD | 1/17/22 1325 |
| 2 Received By: | | NELSON ESQUIVEZ | EA | 1-17-22 1325 |
| 3 Relinquished By: | | NELSON ESQUIVEL | EA | 1-17-22 1632 |
| 3 Received By: | | [illegible] | EA | 1-17-22 1632 |
| | | [illegible] | EA | 1-17-22 17:16 |

ENTHALPY
ANALYTICAL

# SAMPLE ACCEPTANCE CHECKLIST

**Section 1**

Client: Dudek
Project: Norco College CHP&K
Date Received: 1/17/22
Sampler's Name Present: ☑ Yes ☐ No

**Section 2**

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2)
Sample Temp (°C) (No Cooler): ______
Sample Temp (°C), One from each cooler: #1: 2.8 #2: ______ #3: ______ #4: ______

*(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)*

Shipping Information: ______

**Section 3**

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam
☐ Paper ☐ None ☐ Other ______
Cooler Temp (°C): #1: 1.4 #2: ______ #3: ______ #4: ______

| **Section 4** | YES | NO | N/A |
|---|---|---|---|
| Was a COC received? | ✓ | | |
| Are sample IDs present? | ✓ | | |
| Are sampling dates & times present? | ✓ | | |
| Is a relinquished signature present? | ✓ | | |
| Are the tests required clearly indicated on the COC? | ✓ | | |
| Are custody seals present? | | ✓ | |
| If custody seals are present, were they intact? | | | ✓ |
| Are all samples sealed in plastic bags? (Recommended for Microbiology samples) | | | ✓ |
| Did all samples arrive intact? If no, indicate in Section 4 below. | ✓ | | |
| Did all bottle labels agree with COC? (ID, dates and times) | ✓ | | |
| Were the samples collected in the correct containers for the required tests? | ✓ | | |
| Are the containers labeled with the correct preservatives? | ✓ | | |
| Is there headspace in the VOA vials greater than 5-6 mm in diameter? | | | ✓ |
| Was a sufficient amount of sample submitted for the requested tests? | ✓ | | |

**Section 5** Explanations/Comments

**Section 6**

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: ______ Date/Time ______
☐ Email (email sent to/on): ______ / ______

Project Manager's response:

Completed By: ______ Date: 1/17/22

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal
Sample Acceptance Checklist – Rev 4, 8/8/2017

# Analysis Results for 456907

Susan Smith
Dudek
605 3rd Street
Encinitas, CA 92024

Lab Job #: 456907
Project No: NORCO COLLEGE
Location: 13705, Norco College CHP&K, Norco, CA
Date Received: 01/17/22

**Sample ID: S1-0.5** **Lab ID: 456907-001** **Collected: 01/15/22 07:51**
**Matrix: Soil**

| **456907-001 Analyte** | **Result** | **Qual** | **Units** | **RL** | **DF** | **Batch** | **Prepared** | **Analyzed** | **Chemist** |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.6 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.7** | | mg/Kg | 0.86 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **47** | | mg/Kg | 0.86 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.43 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.43 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **11** | | mg/Kg | 0.86 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **4.1** | | mg/Kg | 0.43 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **9.7** | | mg/Kg | 0.86 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **13** | | mg/Kg | 0.86 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.86 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **6.3** | | mg/Kg | 0.86 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.6 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.43 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.6 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **28** | | mg/Kg | 0.86 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **45** | | mg/Kg | 4.3 | 0.86 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.14 | 1 | 281996 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.3 | 0.77 | 282097 | 01/19/22 | 01/19/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 93% | | %REC | 60-140 | 0.77 | 282097 | 01/19/22 | 01/19/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 100% | | %REC | 70-130 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-001 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Freon 12 | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Trichlorofluoromethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 76 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 76 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.6 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |

## Analysis Results for 456907

| 456907-001 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Propylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| tert-Butylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.8 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 108% | | %REC | 70-145 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 120% | | %REC | 70-145 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 98% | | %REC | 70-145 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 104% | | %REC | 70-145 | 0.76 | 281966 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

**Sample ID: S1-5** **Lab ID: 456907-002** **Collected: 01/15/22 07:53**
**Matrix: Soil**

| 456907-002 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.0 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.7** | | mg/Kg | 0.99 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **92** | | mg/Kg | 0.99 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.50 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.50 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **22** | | mg/Kg | 0.99 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **7.6** | | mg/Kg | 0.50 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **13** | | mg/Kg | 0.99 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **180** | | mg/Kg | 0.99 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.99 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **9.5** | | mg/Kg | 0.99 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 3.0 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.50 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 3.0 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **66** | | mg/Kg | 0.99 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **96** | | mg/Kg | 5.0 | 0.99 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 281996 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.2 | 0.75 | 282097 | 01/19/22 | 01/19/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 93% | | %REC | 60-140 | 0.75 | 282097 | 01/19/22 | 01/19/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 101% | | %REC | 70-130 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-002 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 78 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 78 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.8 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| 456907-002 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 108% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 119% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 96% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 103% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

**Sample ID: S1-10** **Lab ID: 456907-003** **Collected: 01/15/22 07:55**
**Matrix: Soil**

| 456907-003 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.9** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **74** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **15** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **6.2** | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **13** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **19** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **7.5** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.9 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.9 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **44** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **46** | | mg/Kg | 4.8 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 281996 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.1 | 0.7 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 97% | | %REC | 60-140 | 0.7 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 94% | | %REC | 70-130 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-003 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 78 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 78 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.8 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-003 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 110% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 119% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 97% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 106% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| **Sample ID:** | **S1-15** | **Lab ID:** | **456907-004** | **Collected:** | **01/15/22 07:57** |
|---|---|---|---|---|---|
| | | **Matrix:** | **Soil** | | |

| **456907-004 Analyte** | **Result** | **Qual** | **Units** | **RL** | **DF** | **Batch** | **Prepared** | **Analyzed** | **Chemist** |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.6 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **4.8** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **60** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | **0.45** | | mg/Kg | 0.43 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.43 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **18** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **6.4** | | mg/Kg | 0.43 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **11** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **7.9** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **12** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.6 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.43 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.6 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **40** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **36** | | mg/Kg | 4.3 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 281996 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.2 | 0.73 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 92% | | %REC | 60-140 | 0.73 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 94% | | %REC | 70-130 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-004 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 69 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 69 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 6.9 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-004 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.5 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 111% | | %REC | 70-145 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 128% | | %REC | 70-145 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 98% | | %REC | 70-145 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 107% | | %REC | 70-145 | 0.69 | 281966 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

**Sample ID: S2-0.5** **Lab ID: 456907-005** **Collected: 01/15/22 11:51**
**Matrix: Soil**

| 456907-005 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.4** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **50** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.50 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.50 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **13** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **4.3** | | mg/Kg | 0.50 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **10** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **27** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **7.1** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.50 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **31** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **57** | | mg/Kg | 5.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 281996 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.4 | 0.82 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 86% | | %REC | 60-140 | 0.82 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 100% | | %REC | 70-130 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-005 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 74 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 74 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.4 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-005 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.7 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 109% | | %REC | 70-145 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 125% | | %REC | 70-145 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 99% | | %REC | 70-145 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 103% | | %REC | 70-145 | 0.74 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

**Sample ID:** **S2-5** **Lab ID:** **456907-006** **Collected:** **01/15/22 11:52**
**Matrix:** **Soil**

| 456907-006 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.8 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.8** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **130** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.46 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.46 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **29** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **9.3** | | mg/Kg | 0.46 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **9.7** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **33** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **12** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.8 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.46 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.8 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **62** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **110** | | mg/Kg | 4.6 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 281996 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.3 | 0.76 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 94% | | %REC | 60-140 | 0.76 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 97% | | %REC | 70-130 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-006 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 81 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 81 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 8.1 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-006 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 4.0 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 107% | | %REC | 70-145 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 125% | | %REC | 70-145 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 96% | | %REC | 70-145 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 100% | | %REC | 70-145 | 0.81 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| **Sample ID:** | **S2-8** | **Lab ID:** | **456907-007** | **Collected:** | **01/15/22 11:53** |
|---|---|---|---|---|---|
| | | **Matrix:** | **Soil** | | |

| 456907-007 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **1.7** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **170** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **36** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **9.8** | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **14** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **48** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **12** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **73** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **87** | | mg/Kg | 4.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 281996 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.4 | 0.81 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 92% | | %REC | 60-140 | 0.81 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 89% | | %REC | 70-130 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| 456907-007 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 78 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 78 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.8 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-007 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 111% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 122% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 97% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 105% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

**Sample ID: S3-0.5** **Lab ID: 456907-008** **Collected: 01/15/22 08:50**
**Matrix: Soil**

| 456907-008 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **3.1** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **79** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **17** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **6.4** | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **12** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **34** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **9.4** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **42** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **79** | | mg/Kg | 4.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.2 | 0.75 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 91% | | %REC | 60-140 | 0.75 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 97% | | %REC | 70-130 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-008 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 78 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 78 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.8 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-008 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.9 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 107% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 122% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 98% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 105% | | %REC | 70-145 | 0.78 | 281966 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| | | | | |
|---|---|---|---|---|
| **Sample ID:** | **S3-5** | **Lab ID:** | **456907-009** | **Collected: 01/15/22 08:51** |
| | | **Matrix:** | **Soil** | |

| 456907-009 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | **3.3** | | mg/Kg | 2.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **3.0** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **74** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **41** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **9.8** | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **9.1** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **52** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **16** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.49 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **55** | | mg/Kg | 0.97 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **780** | | mg/Kg | 4.9 | 0.97 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.2 | 0.73 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 95% | | %REC | 60-140 | 0.73 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 91% | | %REC | 70-130 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-009 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 74 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 74 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.4 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| 456907-009 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 121% | | %REC | 70-145 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 104% | | %REC | 70-145 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 99% | | %REC | 70-145 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 98% | | %REC | 70-145 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| **Sample ID:** | **S3-10** | **Lab ID:** | **456907-010** | **Collected:** | **01/15/22 08:52** |
|---|---|---|---|---|---|
| | | **Matrix:** | **Soil** | | |

| 456907-010 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.9** | | mg/Kg | 0.98 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **92** | | mg/Kg | 0.98 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.49 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | **0.75** | | mg/Kg | 0.49 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **29** | | mg/Kg | 0.98 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **8.3** | | mg/Kg | 0.49 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **9.6** | | mg/Kg | 0.98 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **63** | | mg/Kg | 0.98 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.98 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **11** | | mg/Kg | 0.98 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.9 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.49 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.9 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **46** | | mg/Kg | 0.98 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **660** | | mg/Kg | 4.9 | 0.98 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.4 | 0.79 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 93% | | %REC | 60-140 | 0.79 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 93% | | %REC | 70-130 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| 456907-010 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 75 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 75 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.5 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-010 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.7 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 119% | | %REC | 70-145 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 99% | | %REC | 70-145 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 101% | | %REC | 70-145 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 100% | | %REC | 70-145 | 0.75 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

**Sample ID: S4-0.5** **Lab ID: 456907-011** **Collected: 01/15/22 09:35**
**Matrix: Soil**

| 456907-011 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 314.0<br>Prep Method: METHOD | | | | | | | | | |
| Perchlorate | ND | | mg/Kg | 0.040 | 0.99 | 282204 | 01/20/22 | 01/22/22 | KLN |
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.5 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.8** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **57** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.42 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.42 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **11** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **4.8** | | mg/Kg | 0.42 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **9.8** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **21** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **5.9** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.5 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.42 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.5 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **33** | | mg/Kg | 0.85 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **52** | | mg/Kg | 4.2 | 0.85 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.5 | 0.82 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 75% | | %REC | 60-140 | 0.82 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 95% | | %REC | 70-130 | 1 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-011 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichlorofluoromethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 69 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 69 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 6.9 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-011 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| tert-Butylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 123% | | %REC | 70-145 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 97% | | %REC | 70-145 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 102% | | %REC | 70-145 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 99% | | %REC | 70-145 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| | | |
|---|---|---|
| **Sample ID: S4-5** | **Lab ID: 456907-012**<br>**Matrix: Soil** | **Collected: 01/15/22 09:36** |

| 456907-012 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 314.0<br>Prep Method: METHOD | | | | | | | | | |
| Perchlorate | ND | | mg/Kg | 0.040 | 1 | 282204 | 01/20/22 | 01/22/22 | KLN |
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **4.7** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **55** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **16** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **5.6** | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **10** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **9.5** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **11** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **35** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **38** | | mg/Kg | 5.1 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.0 | 0.68 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 91% | | %REC | 60-140 | 0.68 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 76% | | %REC | 70-130 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

## Analysis Results for 456907

| 456907-012 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichlorofluoromethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 68 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 68 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 6.8 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-012 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| tert-Butylbenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.4 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 113% | | %REC | 70-145 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 95% | | %REC | 70-145 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 104% | | %REC | 70-145 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 102% | | %REC | 70-145 | 0.68 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| Sample ID: | S4-10 | Lab ID: | 456907-013 | Collected: | 01/15/22 09:37 |
|---|---|---|---|---|---|
| | | Matrix: | Soil | | |

| 456907-013 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 314.0<br>Prep Method: METHOD | | | | | | | | | |
| Perchlorate | ND | | mg/Kg | 0.040 | 0.99 | 282204 | 01/20/22 | 01/22/22 | KLN |
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.8 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.6** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **73** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.47 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.47 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **16** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **5.7** | | mg/Kg | 0.47 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **10** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **27** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **8.7** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.8 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.47 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.8 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **35** | | mg/Kg | 0.93 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **69** | | mg/Kg | 4.7 | 0.93 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.14 | 1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.2 | 0.74 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 91% | | %REC | 60-140 | 0.74 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 78% | | %REC | 70-130 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-013 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichlorofluoromethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 72 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 72 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.2 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| 456907-013 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| tert-Butylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 126% | | %REC | 70-145 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 100% | | %REC | 70-145 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 99% | | %REC | 70-145 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 99% | | %REC | 70-145 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| **Sample ID:** | **S4-15** | **Lab ID:** | **456907-014** | **Collected:** | **01/15/22 09:38** |
|---|---|---|---|---|---|
| | | **Matrix:** | **Soil** | | |

| **456907-014 Analyte** | **Result** | **Qual** | **Units** | **RL** | **DF** | **Batch** | **Prepared** | **Analyzed** | **Chemist** |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 314.0<br>Prep Method: METHOD | | | | | | | | | |
| Perchlorate | ND | | mg/Kg | 0.040 | 1 | 282204 | 01/20/22 | 01/22/22 | KLN |
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.2** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **42** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **12** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **3.8** | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **6.9** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **6.1** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **6.4** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **28** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **22** | | mg/Kg | 5.1 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.17 | 1.2 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.5 | 0.82 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 93% | | %REC | 60-140 | 0.82 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282020 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282020 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 88% | | %REC | 70-130 | 0.99 | 282020 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-014 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Vinyl Chloride | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichlorofluoromethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 83 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 83 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 8.3 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| 456907-014 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| tert-Butylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 4.2 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 104% | | %REC | 70-145 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 99% | | %REC | 70-145 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 103% | | %REC | 70-145 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 100% | | %REC | 70-145 | 0.83 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

**Sample ID: S5-0.5** **Lab ID: 456907-015** **Collected: 01/15/22 10:10**
**Matrix: Soil**

| 456907-015 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **3.7** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **58** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.50 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.50 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **14** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **4.9** | | mg/Kg | 0.50 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **9.4** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **15** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **8.5** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.50 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 3.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **30** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **58** | | mg/Kg | 5.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.3 | 0.77 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 97% | | %REC | 60-140 | 0.77 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282020 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282020 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 98% | | %REC | 70-130 | 0.99 | 282020 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-015 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 74 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 74 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.4 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| 456907-015 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.7 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 111% | | %REC | 70-145 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 102% | | %REC | 70-145 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 99% | | %REC | 70-145 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 98% | | %REC | 70-145 | 0.74 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

**Sample ID:** **S5-5** **Lab ID:** **456907-016** **Collected:** **01/15/22 10:11**
**Matrix:** **Soil**

| 456907-016 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.8 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.0** | | mg/Kg | 0.94 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **23** | | mg/Kg | 0.94 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.47 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.47 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **11** | | mg/Kg | 0.94 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **3.2** | | mg/Kg | 0.47 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **5.4** | | mg/Kg | 0.94 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **5.1** | | mg/Kg | 0.94 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.94 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **6.3** | | mg/Kg | 0.94 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.8 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.47 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.8 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **23** | | mg/Kg | 0.94 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **21** | | mg/Kg | 4.7 | 0.94 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.5 | 0.85 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 94% | | %REC | 60-140 | 0.85 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282020 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282020 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 93% | | %REC | 70-130 | 1 | 282020 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-016 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 85 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 85 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 8.5 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-016 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 4.2 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 122% | | %REC | 70-145 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 101% | | %REC | 70-145 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 99% | | %REC | 70-145 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 101% | | %REC | 70-145 | 0.85 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

**Sample ID: S5-10** **Lab ID: 456907-017** **Collected: 01/15/22 10:12**
**Matrix: Soil**

| 456907-017 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.4** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **42** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **12** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **3.9** | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **11** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **12** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **6.6** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.9 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | **0.72** | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.9 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **28** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **36** | | mg/Kg | 4.8 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.4 | 0.79 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 94% | | %REC | 60-140 | 0.79 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282020 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282020 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 98% | | %REC | 70-130 | 0.99 | 282020 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-017 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 81 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 81 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 8.1 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-017 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 4.0 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 115% | | %REC | 70-145 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 101% | | %REC | 70-145 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 102% | | %REC | 70-145 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 101% | | %REC | 70-145 | 0.81 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

**Sample ID: S5-15** **Lab ID: 456907-018** **Collected: 01/15/22 10:13**
**Matrix: Soil**

| 456907-018 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.1 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.5** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **40** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **12** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **3.7** | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **6.4** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **6.0** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **6.4** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 3.1 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.51 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 3.1 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **28** | | mg/Kg | 1.0 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **22** | | mg/Kg | 5.1 | 1 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.14 | 1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.7 | 0.89 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 94% | | %REC | 60-140 | 0.89 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282020 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282020 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 96% | | %REC | 70-130 | 1 | 282020 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-018 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 91 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 91 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 9.1 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |

## Analysis Results for 456907

| 456907-018 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 4.5 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 122% | | %REC | 70-145 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 100% | | %REC | 70-145 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 101% | | %REC | 70-145 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 99% | | %REC | 70-145 | 0.91 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

**Sample ID:** **S6-0.5** **Lab ID:** **456907-019** **Collected:** **01/15/22 08:07**
**Matrix:** **Soil**

| 456907-019 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.6 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.8** | | mg/Kg | 0.87 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **64** | | mg/Kg | 0.87 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.43 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.43 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **15** | | mg/Kg | 0.87 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **5.3** | | mg/Kg | 0.43 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **12** | | mg/Kg | 0.87 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **32** | | mg/Kg | 0.87 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.87 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **7.9** | | mg/Kg | 0.87 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.6 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.43 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.6 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **36** | | mg/Kg | 0.87 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **81** | | mg/Kg | 4.3 | 0.87 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.3 | 0.77 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 95% | | %REC | 60-140 | 0.77 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 93% | | %REC | 70-130 | 0.99 | 282020 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-019 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 77 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 77 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.7 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-019 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 109% | | %REC | 70-145 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 102% | | %REC | 70-145 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 101% | | %REC | 70-145 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 99% | | %REC | 70-145 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

**Sample ID: S6-5** **Lab ID: 456907-020** **Collected: 01/15/22 08:08**
**Matrix: Soil**

| 456907-020 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.8** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Barium | **84** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **23** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **7.2** | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Copper | **10** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Lead | **43** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **12** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.9 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.48 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.9 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **48** | | mg/Kg | 0.96 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **98** | | mg/Kg | 4.8 | 0.96 | 281970 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.1 | 0.71 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 94% | | %REC | 60-140 | 0.71 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282020 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282020 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 95% | | %REC | 70-130 | 1 | 282020 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-020 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 69 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 69 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 6.9 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-020 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.5 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 110% | | %REC | 70-145 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 104% | | %REC | 70-145 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 103% | | %REC | 70-145 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 100% | | %REC | 70-145 | 0.69 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

**Sample ID: S6-10** **Lab ID: 456907-021** **Collected: 01/15/22 08:09**
**Matrix: Soil**

| 456907-021 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **3.0** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Barium | **37** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.48 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.48 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **12** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **4.3** | | mg/Kg | 0.48 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Copper | **6.7** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Lead | **11** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **7.6** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.9 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.48 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.9 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **28** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **23** | | mg/Kg | 4.8 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.3 | 0.75 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 95% | | %REC | 60-140 | 0.75 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282022 | 01/18/22 | 01/19/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282022 | 01/18/22 | 01/19/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 90% | | %REC | 70-130 | 0.99 | 282022 | 01/18/22 | 01/19/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-021 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 72 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 72 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.2 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-021 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.6 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 109% | | %REC | 70-145 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 97% | | %REC | 70-145 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 98% | | %REC | 70-145 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 99% | | %REC | 70-145 | 0.72 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| **Sample ID:** | **S6-15** | **Lab ID:** | **456907-022** | **Collected:** | **01/15/22 08:10** |
|---|---|---|---|---|---|
| | | **Matrix:** | **Soil** | | |

| 456907-022 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.0 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **1.5** | | mg/Kg | 1.0 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Barium | **150** | | mg/Kg | 1.0 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.50 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.50 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **19** | | mg/Kg | 1.0 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **7.0** | | mg/Kg | 0.50 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Copper | **13** | | mg/Kg | 1.0 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Lead | **9.7** | | mg/Kg | 1.0 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 1.0 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **8.3** | | mg/Kg | 1.0 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 3.0 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.50 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 3.0 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **45** | | mg/Kg | 1.0 | 1 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **62** | | mg/Kg | 5.0 | 1 | 281971 | 01/17/22 | 01/20/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.14 | 1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.3 | 0.75 | 282077 | 01/20/22 | 01/20/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 98% | | %REC | 60-140 | 0.75 | 282077 | 01/20/22 | 01/20/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 97% | | %REC | 70-130 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 12 | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloromethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Vinyl Chloride | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromomethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |

# Analysis Results for 456907

| 456907-022 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Acetone | ND | | ug/Kg | 77 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Freon 113 | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Methylene Chloride | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| MTBE | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Butanone | ND | | ug/Kg | 77 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chloroform | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromochloromethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Carbon Tetrachloride | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Benzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Trichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromodichloromethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromomethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Tetrachloroethene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Dibromochloromethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Chlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Ethylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| m,p-Xylenes | ND | | ug/Kg | 7.7 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| o-Xylene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Styrene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromoform | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Isopropylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Propylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 2-Chlorotoluene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 4-Chlorotoluene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| 456907-022 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| sec-Butylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| n-Butylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Hexachlorobutadiene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Naphthalene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Xylene (total) | ND | | ug/Kg | 3.8 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 110% | | %REC | 70-145 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| 1,2-Dichloroethane-d4 | 104% | | %REC | 70-145 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Toluene-d8 | 100% | | %REC | 70-145 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |
| Bromofluorobenzene | 100% | | %REC | 70-145 | 0.77 | 281981 | 01/18/22 | 01/18/22 | TCN |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| Sample ID: S7-0.5 | Lab ID: 456907-023<br>Matrix: Soil | Collected: 01/15/22 09:13 |
|---|---|---|

| 456907-023 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.6 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **3.5** | | mg/Kg | 0.85 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Barium | **74** | | mg/Kg | 0.85 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.43 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.43 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **15** | | mg/Kg | 0.85 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **6.4** | | mg/Kg | 0.43 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Copper | **14** | | mg/Kg | 0.85 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Lead | **26** | | mg/Kg | 0.85 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.85 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **8.3** | | mg/Kg | 0.85 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.6 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.43 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.6 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **42** | | mg/Kg | 0.85 | 0.85 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **56** | | mg/Kg | 4.3 | 0.85 | 281971 | 01/17/22 | 01/20/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.0 | 0.67 | 282078 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 92% | | %REC | 60-140 | 0.67 | 282078 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 95% | | %REC | 70-130 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Freon 12 | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloromethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromomethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloroethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| 456907-023 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Acetone | ND | | ug/Kg | 70 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Freon 113 | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| MTBE | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 70 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloroform | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Benzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Toluene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 7.0 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| o-Xylene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Styrene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromoform | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |

# Analysis Results for 456907

| 456907-023 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Naphthalene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 3.5 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 104% | | %REC | 70-145 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloroethane-d4 | 115% | | %REC | 70-145 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Toluene-d8 | 99% | | %REC | 70-145 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromofluorobenzene | 103% | | %REC | 70-145 | 0.7 | 281982 | 01/18/22 | 01/18/22 | LXR |

# Analysis Results for 456907

**Sample ID: S7-5** **Lab ID: 456907-024** **Collected: 01/15/22 09:14**
**Matrix: Soil**

| 456907-024 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.8 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **3.3** | | mg/Kg | 0.93 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Barium | **74** | | mg/Kg | 0.93 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.47 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.47 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **13** | | mg/Kg | 0.93 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **5.6** | | mg/Kg | 0.47 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Copper | **11** | | mg/Kg | 0.93 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Lead | **29** | | mg/Kg | 0.93 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.93 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **6.8** | | mg/Kg | 0.93 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.8 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.47 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.8 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **41** | | mg/Kg | 0.93 | 0.93 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **52** | | mg/Kg | 4.7 | 0.93 | 281971 | 01/17/22 | 01/20/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.3 | 0.78 | 282078 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 93% | | %REC | 60-140 | 0.78 | 282078 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282022 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282022 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 100% | | %REC | 70-130 | 0.99 | 282022 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Freon 12 | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromomethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |

# Analysis Results for 456907

| 456907-024 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Acetone | ND | | ug/Kg | 78 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Freon 113 | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| MTBE | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 78 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloroform | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Benzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Toluene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 7.8 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| o-Xylene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Styrene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromoform | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |

# Analysis Results for 456907

| 456907-024 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Naphthalene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 3.9 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 110% | | %REC | 70-145 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloroethane-d4 | 114% | | %REC | 70-145 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Toluene-d8 | 99% | | %REC | 70-145 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromofluorobenzene | 102% | | %REC | 70-145 | 0.78 | 281982 | 01/18/22 | 01/18/22 | LXR |

# Analysis Results for 456907

**Sample ID:** **S7-10** **Lab ID:** **456907-025** **Collected:** **01/15/22 09:15**
**Matrix:** **Soil**

| 456907-025 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.8 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **4.8** | | mg/Kg | 0.92 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Barium | **77** | | mg/Kg | 0.92 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | **0.53** | | mg/Kg | 0.46 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.46 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **21** | | mg/Kg | 0.92 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **5.6** | | mg/Kg | 0.46 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Copper | **11** | | mg/Kg | 0.92 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Lead | **18** | | mg/Kg | 0.92 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.92 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **10** | | mg/Kg | 0.92 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.8 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.46 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.8 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **52** | | mg/Kg | 0.92 | 0.92 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **37** | | mg/Kg | 4.6 | 0.92 | 281971 | 01/17/22 | 01/20/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.17 | 1.2 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.0 | 0.68 | 282078 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 93% | | %REC | 60-140 | 0.68 | 282078 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 101% | | %REC | 70-130 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Freon 12 | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromomethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |

# Analysis Results for 456907

| 456907-025 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Acetone | ND | | ug/Kg | 74 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Freon 113 | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| MTBE | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 74 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloroform | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Benzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Toluene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 7.4 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| o-Xylene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Styrene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromoform | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| 456907-025 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Naphthalene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 3.7 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 107% | | %REC | 70-145 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloroethane-d4 | 109% | | %REC | 70-145 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Toluene-d8 | 99% | | %REC | 70-145 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromofluorobenzene | 103% | | %REC | 70-145 | 0.74 | 281982 | 01/18/22 | 01/18/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

**Sample ID: S7-15** **Lab ID: 456907-026** **Collected: 01/15/22 09:16**
**Matrix: Soil**

| 456907-026 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.3** | | mg/Kg | 0.95 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Barium | **52** | | mg/Kg | 0.95 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.48 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.48 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **13** | | mg/Kg | 0.95 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **5.3** | | mg/Kg | 0.48 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Copper | **7.5** | | mg/Kg | 0.95 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Lead | **6.6** | | mg/Kg | 0.95 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.95 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **6.5** | | mg/Kg | 0.95 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.9 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.48 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.9 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **30** | | mg/Kg | 0.95 | 0.95 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **22** | | mg/Kg | 4.8 | 0.95 | 281971 | 01/17/22 | 01/20/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.5 | 0.83 | 282078 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 91% | | %REC | 60-140 | 0.83 | 282078 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282022 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282022 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 98% | | %REC | 70-130 | 0.99 | 282022 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |

# Analysis Results for 456907

| 456907-026 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Acetone | ND | | ug/Kg | 82 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| MTBE | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 82 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Benzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Toluene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 8.2 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Styrene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |

# Analysis Results for 456907

| 456907-026 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.1 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 108% | | %REC | 70-145 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloroethane-d4 | 112% | | %REC | 70-145 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Toluene-d8 | 101% | | %REC | 70-145 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromofluorobenzene | 103% | | %REC | 70-145 | 0.82 | 281982 | 01/18/22 | 01/18/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

**Sample ID: S8-5** **Lab ID: 456907-027** **Collected: 01/15/22 10:26**
**Matrix: Soil**

| 456907-027 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Arsenic | **2.7** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Barium | **31** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Beryllium | ND | | mg/Kg | 0.48 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cadmium | ND | | mg/Kg | 0.48 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Chromium | **9.6** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Cobalt | **3.1** | | mg/Kg | 0.48 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Copper | **4.8** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Lead | **4.4** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Molybdenum | ND | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Nickel | **5.8** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Selenium | ND | | mg/Kg | 2.9 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Silver | ND | | mg/Kg | 0.48 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Thallium | ND | | mg/Kg | 2.9 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Vanadium | **22** | | mg/Kg | 0.96 | 0.96 | 281971 | 01/17/22 | 01/19/22 | SBW |
| Zinc | **17** | | mg/Kg | 4.8 | 0.96 | 281971 | 01/17/22 | 01/20/22 | SBW |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 282030 | 01/18/22 | 01/19/22 | SBW |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.5 | 0.83 | 282078 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 93% | | %REC | 60-140 | 0.83 | 282078 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 97% | | %REC | 70-130 | 1 | 282022 | 01/18/22 | 01/20/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |

# Analysis Results for 456907

| 456907-027 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Acetone | ND | | ug/Kg | 81 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| MTBE | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 81 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Benzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Toluene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 8.1 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Styrene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 456907

| 456907-027 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.0 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 104% | | %REC | 70-145 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| 1,2-Dichloroethane-d4 | 111% | | %REC | 70-145 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Toluene-d8 | 99% | | %REC | 70-145 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |
| Bromofluorobenzene | 103% | | %REC | 70-145 | 0.81 | 281982 | 01/18/22 | 01/18/22 | LXR |

ND Not Detected

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC966937** | **Batch:** | **281966** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC966937 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 56.31 | 50.00 | ug/Kg | 113% | | 70-131 |
| MTBE | 50.15 | 50.00 | ug/Kg | 100% | | 69-130 |
| Benzene | 53.27 | 50.00 | ug/Kg | 107% | | 70-130 |
| Trichloroethene | 51.67 | 50.00 | ug/Kg | 103% | | 70-130 |
| Toluene | 50.07 | 50.00 | ug/Kg | 100% | | 70-130 |
| Chlorobenzene | 51.67 | 50.00 | ug/Kg | 103% | | 70-130 |
| **Surrogates** | | | | | | |
| Dibromofluoromethane | 54.40 | 50.00 | ug/Kg | 109% | | 70-130 |
| 1,2-Dichloroethane-d4 | 56.98 | 50.00 | ug/Kg | 114% | | 70-145 |
| Toluene-d8 | 49.34 | 50.00 | ug/Kg | 99% | | 70-145 |
| Bromofluorobenzene | 47.97 | 50.00 | ug/Kg | 96% | | 70-145 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample Duplicate** | **Lab ID:** | **QC966938** | **Batch:** | **281966** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC966938 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 57.84 | 50.00 | ug/Kg | 116% | | 70-131 | 3 | 33 |
| MTBE | 50.59 | 50.00 | ug/Kg | 101% | | 69-130 | 1 | 30 |
| Benzene | 51.48 | 50.00 | ug/Kg | 103% | | 70-130 | 3 | 30 |
| Trichloroethene | 51.89 | 50.00 | ug/Kg | 104% | | 70-130 | 0 | 30 |
| Toluene | 49.95 | 50.00 | ug/Kg | 100% | | 70-130 | 0 | 30 |
| Chlorobenzene | 51.93 | 50.00 | ug/Kg | 104% | | 70-130 | 1 | 30 |
| **Surrogates** | | | | | | | | |
| Dibromofluoromethane | 54.73 | 50.00 | ug/Kg | 109% | | 70-130 | | |
| 1,2-Dichloroethane-d4 | 57.84 | 50.00 | ug/Kg | 116% | | 70-145 | | |
| Toluene-d8 | 48.89 | 50.00 | ug/Kg | 98% | | 70-145 | | |
| Bromofluorobenzene | 47.95 | 50.00 | ug/Kg | 96% | | 70-145 | | |

# Batch QC

**Type:** Blank **Lab ID:** QC966939 **Batch:** 281966
**Matrix:** Soil **Method:** EPA 8260B **Prep Method:** EPA 5035

| QC966939 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| 3-Chloropropene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Freon 12 | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Chloromethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Vinyl Chloride | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Bromomethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Chloroethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Trichlorofluoromethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Acetone | ND | | ug/Kg | 100 | 01/17/22 | 01/17/22 |
| Freon 113 | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,1-Dichloroethene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Methylene Chloride | 10 | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| MTBE | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,1-Dichloroethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 2-Butanone | ND | | ug/Kg | 100 | 01/17/22 | 01/17/22 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 2,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Chloroform | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Bromochloromethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,1-Dichloropropene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Carbon Tetrachloride | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,2-Dichloroethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Benzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Trichloroethene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Bromodichloromethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Dibromomethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Toluene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,3-Dichloropropane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Tetrachloroethene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Dibromochloromethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,2-Dibromoethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Chlorobenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Ethylbenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |

# Batch QC

| QC966939 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| m,p-Xylenes | ND | | ug/Kg | 10 | 01/17/22 | 01/17/22 |
| o-Xylene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Styrene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Bromoform | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Isopropylbenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Propylbenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Bromobenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 2-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 4-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| tert-Butylbenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| sec-Butylbenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| para-Isopropyl Toluene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| n-Butylbenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Hexachlorobutadiene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Naphthalene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| Xylene (total) | ND | | ug/Kg | 5.0 | 01/17/22 | 01/17/22 |
| **Surrogates** | | | | **Limits** | | |
| Dibromofluoromethane | 106% | | %REC | 70-130 | 01/17/22 | 01/17/22 |
| 1,2-Dichloroethane-d4 | 112% | | %REC | 70-145 | 01/17/22 | 01/17/22 |
| Toluene-d8 | 98% | | %REC | 70-145 | 01/17/22 | 01/17/22 |
| Bromofluorobenzene | 103% | | %REC | 70-145 | 01/17/22 | 01/17/22 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC966950** | **Batch:** | **281970** |
| **Matrix:** | **Soil** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC966950 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Antimony | ND | | mg/Kg | 3.0 | 01/17/22 | 01/19/22 |
| Arsenic | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Barium | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Beryllium | ND | | mg/Kg | 0.50 | 01/17/22 | 01/19/22 |
| Cadmium | ND | | mg/Kg | 0.50 | 01/17/22 | 01/19/22 |
| Chromium | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Cobalt | ND | | mg/Kg | 0.50 | 01/17/22 | 01/19/22 |
| Copper | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Lead | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Molybdenum | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Nickel | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Selenium | ND | | mg/Kg | 3.0 | 01/17/22 | 01/19/22 |
| Silver | ND | | mg/Kg | 0.50 | 01/17/22 | 01/19/22 |
| Thallium | ND | | mg/Kg | 3.0 | 01/17/22 | 01/19/22 |
| Vanadium | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Zinc | ND | | mg/Kg | 5.0 | 01/17/22 | 01/19/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC966951** | **Batch:** | **281970** |
| **Matrix:** | **Soil** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC966951 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Antimony | 101.2 | 100.0 | mg/Kg | 101% | | 80-120 |
| Arsenic | 105.5 | 100.0 | mg/Kg | 106% | | 80-120 |
| Barium | 104.2 | 100.0 | mg/Kg | 104% | | 80-120 |
| Beryllium | 99.26 | 100.0 | mg/Kg | 99% | | 80-120 |
| Cadmium | 100.4 | 100.0 | mg/Kg | 100% | | 80-120 |
| Chromium | 100.7 | 100.0 | mg/Kg | 101% | | 80-120 |
| Cobalt | 106.4 | 100.0 | mg/Kg | 106% | | 80-120 |
| Copper | 100.5 | 100.0 | mg/Kg | 100% | | 80-120 |
| Lead | 111.8 | 100.0 | mg/Kg | 112% | | 80-120 |
| Molybdenum | 105.1 | 100.0 | mg/Kg | 105% | | 80-120 |
| Nickel | 108.2 | 100.0 | mg/Kg | 108% | | 80-120 |
| Selenium | 92.13 | 100.0 | mg/Kg | 92% | | 80-120 |
| Silver | 48.04 | 50.00 | mg/Kg | 96% | | 80-120 |
| Thallium | 107.2 | 100.0 | mg/Kg | 107% | | 80-120 |
| Vanadium | 104.7 | 100.0 | mg/Kg | 105% | | 80-120 |
| Zinc | 115.0 | 100.0 | mg/Kg | 115% | | 80-120 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC966952** | **Batch:** | **281970** |
| **Matrix (Source ID):** | **Soil (456907-001)** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC966952 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Antimony | 43.32 | ND | 101.0 | mg/Kg | 43% | * | 75-125 | 1 |
| Arsenic | 111.5 | 2.726 | 101.0 | mg/Kg | 108% | | 75-125 | 1 |
| Barium | 154.0 | 47.02 | 101.0 | mg/Kg | 106% | | 75-125 | 1 |
| Beryllium | 102.5 | 0.2473 | 101.0 | mg/Kg | 101% | | 75-125 | 1 |
| Cadmium | 103.1 | ND | 101.0 | mg/Kg | 102% | | 75-125 | 1 |
| Chromium | 111.8 | 11.41 | 101.0 | mg/Kg | 99% | | 75-125 | 1 |
| Cobalt | 109.2 | 4.135 | 101.0 | mg/Kg | 104% | | 75-125 | 1 |
| Copper | 114.8 | 9.740 | 101.0 | mg/Kg | 104% | | 75-125 | 1 |
| Lead | 122.6 | 13.44 | 101.0 | mg/Kg | 108% | | 75-125 | 1 |
| Molybdenum | 105.0 | ND | 101.0 | mg/Kg | 104% | | 75-125 | 1 |
| Nickel | 112.6 | 6.280 | 101.0 | mg/Kg | 105% | | 75-125 | 1 |
| Selenium | 95.94 | ND | 101.0 | mg/Kg | 95% | | 75-125 | 1 |
| Silver | 48.58 | ND | 50.51 | mg/Kg | 96% | | 75-125 | 1 |
| Thallium | 106.0 | 0.5663 | 101.0 | mg/Kg | 104% | | 75-125 | 1 |
| Vanadium | 134.4 | 28.47 | 101.0 | mg/Kg | 105% | | 75-125 | 1 |
| Zinc | 163.0 | 44.84 | 101.0 | mg/Kg | 117% | | 75-125 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC966953** | **Batch:** | **281970** |
| **Matrix (Source ID):** | **Soil (456907-001)** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC966953 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 42.86 | ND | 98.04 | mg/Kg | 44% | * | 75-125 | 2 | 41 | 0.98 |
| Arsenic | 110.8 | 2.726 | 98.04 | mg/Kg | 110% | | 75-125 | 2 | 35 | 0.98 |
| Barium | 152.1 | 47.02 | 98.04 | mg/Kg | 107% | | 75-125 | 1 | 20 | 0.98 |
| Beryllium | 101.1 | 0.2473 | 98.04 | mg/Kg | 103% | | 75-125 | 2 | 20 | 0.98 |
| Cadmium | 101.2 | ND | 98.04 | mg/Kg | 103% | | 75-125 | 1 | 20 | 0.98 |
| Chromium | 110.5 | 11.41 | 98.04 | mg/Kg | 101% | | 75-125 | 1 | 20 | 0.98 |
| Cobalt | 107.1 | 4.135 | 98.04 | mg/Kg | 105% | | 75-125 | 1 | 20 | 0.98 |
| Copper | 114.7 | 9.740 | 98.04 | mg/Kg | 107% | | 75-125 | 3 | 20 | 0.98 |
| Lead | 119.6 | 13.44 | 98.04 | mg/Kg | 108% | | 75-125 | 0 | 20 | 0.98 |
| Molybdenum | 103.5 | ND | 98.04 | mg/Kg | 106% | | 75-125 | 2 | 20 | 0.98 |
| Nickel | 111.1 | 6.280 | 98.04 | mg/Kg | 107% | | 75-125 | 1 | 20 | 0.98 |
| Selenium | 94.31 | ND | 98.04 | mg/Kg | 96% | | 75-125 | 1 | 20 | 0.98 |
| Silver | 48.02 | ND | 49.02 | mg/Kg | 98% | | 75-125 | 2 | 20 | 0.98 |
| Thallium | 104.9 | 0.5663 | 98.04 | mg/Kg | 106% | | 75-125 | 2 | 20 | 0.98 |
| Vanadium | 132.9 | 28.47 | 98.04 | mg/Kg | 107% | | 75-125 | 1 | 20 | 0.98 |
| Zinc | 160.3 | 44.84 | 98.04 | mg/Kg | 118% | | 75-125 | 0 | 20 | 0.98 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC966955** | **Batch:** | **281971** |
| **Matrix:** | **Soil** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC966955 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Antimony | ND | | mg/Kg | 3.0 | 01/17/22 | 01/19/22 |
| Arsenic | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Barium | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Beryllium | ND | | mg/Kg | 0.50 | 01/17/22 | 01/19/22 |
| Cadmium | ND | | mg/Kg | 0.50 | 01/17/22 | 01/19/22 |
| Chromium | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Cobalt | ND | | mg/Kg | 0.50 | 01/17/22 | 01/19/22 |
| Copper | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Lead | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Molybdenum | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Nickel | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Selenium | ND | | mg/Kg | 3.0 | 01/17/22 | 01/19/22 |
| Silver | ND | | mg/Kg | 0.50 | 01/17/22 | 01/19/22 |
| Thallium | ND | | mg/Kg | 3.0 | 01/17/22 | 01/19/22 |
| Vanadium | ND | | mg/Kg | 1.0 | 01/17/22 | 01/19/22 |
| Zinc | ND | | mg/Kg | 5.0 | 01/17/22 | 01/19/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC966956** | **Batch:** | **281971** |
| **Matrix:** | **Soil** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC966956 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Antimony | 100.8 | 100.0 | mg/Kg | 101% | | 80-120 |
| Arsenic | 106.1 | 100.0 | mg/Kg | 106% | | 80-120 |
| Barium | 105.0 | 100.0 | mg/Kg | 105% | | 80-120 |
| Beryllium | 100.3 | 100.0 | mg/Kg | 100% | | 80-120 |
| Cadmium | 100.9 | 100.0 | mg/Kg | 101% | | 80-120 |
| Chromium | 101.5 | 100.0 | mg/Kg | 102% | | 80-120 |
| Cobalt | 106.8 | 100.0 | mg/Kg | 107% | | 80-120 |
| Copper | 101.0 | 100.0 | mg/Kg | 101% | | 80-120 |
| Lead | 111.9 | 100.0 | mg/Kg | 112% | | 80-120 |
| Molybdenum | 104.8 | 100.0 | mg/Kg | 105% | | 80-120 |
| Nickel | 108.5 | 100.0 | mg/Kg | 109% | | 80-120 |
| Selenium | 92.71 | 100.0 | mg/Kg | 93% | | 80-120 |
| Silver | 48.56 | 50.00 | mg/Kg | 97% | | 80-120 |
| Thallium | 108.6 | 100.0 | mg/Kg | 109% | | 80-120 |
| Vanadium | 105.4 | 100.0 | mg/Kg | 105% | | 80-120 |
| Zinc | 116.1 | 100.0 | mg/Kg | 116% | | 80-120 |

# Batch QC

**Type:** Matrix Spike **Lab ID:** QC966957 **Batch:** 281971
**Matrix (Source ID):** Soil (456907-021) **Method:** EPA 6010B **Prep Method:** EPA 3050B

| QC966957 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Antimony | 41.38 | ND | 96.15 | mg/Kg | 43% | * | 75-125 | 0.96 |
| Arsenic | 110.3 | 2.978 | 96.15 | mg/Kg | 112% | | 75-125 | 0.96 |
| Barium | 150.8 | 37.03 | 96.15 | mg/Kg | 118% | | 75-125 | 0.96 |
| Beryllium | 101.6 | 0.2319 | 96.15 | mg/Kg | 105% | | 75-125 | 0.96 |
| Cadmium | 101.6 | ND | 96.15 | mg/Kg | 106% | | 75-125 | 0.96 |
| Chromium | 113.6 | 12.42 | 96.15 | mg/Kg | 105% | | 75-125 | 0.96 |
| Cobalt | 107.5 | 4.339 | 96.15 | mg/Kg | 107% | | 75-125 | 0.96 |
| Copper | 108.9 | 6.699 | 96.15 | mg/Kg | 106% | | 75-125 | 0.96 |
| Lead | 118.8 | 10.82 | 96.15 | mg/Kg | 112% | | 75-125 | 0.96 |
| Molybdenum | 102.4 | ND | 96.15 | mg/Kg | 107% | | 75-125 | 0.96 |
| Nickel | 113.5 | 7.552 | 96.15 | mg/Kg | 110% | | 75-125 | 0.96 |
| Selenium | 95.31 | ND | 96.15 | mg/Kg | 99% | | 75-125 | 0.96 |
| Silver | 47.35 | ND | 48.08 | mg/Kg | 98% | | 75-125 | 0.96 |
| Thallium | 104.6 | 0.6906 | 96.15 | mg/Kg | 108% | | 75-125 | 0.96 |
| Vanadium | 135.6 | 28.22 | 96.15 | mg/Kg | 112% | | 75-125 | 0.96 |
| Zinc | 140.3 | 22.56 | 96.15 | mg/Kg | 122% | | 75-125 | 0.96 |

**Type:** Matrix Spike Duplicate **Lab ID:** QC966958 **Batch:** 281971
**Matrix (Source ID):** Soil (456907-021) **Method:** EPA 6010B **Prep Method:** EPA 3050B

| QC966958 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 42.60 | ND | 100.0 | mg/Kg | 43% | * | 75-125 | 1 | 41 | 1 |
| Arsenic | 113.4 | 2.978 | 100.0 | mg/Kg | 110% | | 75-125 | 1 | 35 | 1 |
| Barium | 162.6 | 37.03 | 100.0 | mg/Kg | 126% | * | 75-125 | 5 | 20 | 1 |
| Beryllium | 103.3 | 0.2319 | 100.0 | mg/Kg | 103% | | 75-125 | 2 | 20 | 1 |
| Cadmium | 103.2 | ND | 100.0 | mg/Kg | 103% | | 75-125 | 2 | 20 | 1 |
| Chromium | 117.0 | 12.42 | 100.0 | mg/Kg | 105% | | 75-125 | 0 | 20 | 1 |
| Cobalt | 110.4 | 4.339 | 100.0 | mg/Kg | 106% | | 75-125 | 1 | 20 | 1 |
| Copper | 114.4 | 6.699 | 100.0 | mg/Kg | 108% | | 75-125 | 1 | 20 | 1 |
| Lead | 122.2 | 10.82 | 100.0 | mg/Kg | 111% | | 75-125 | 1 | 20 | 1 |
| Molybdenum | 104.8 | ND | 100.0 | mg/Kg | 105% | | 75-125 | 2 | 20 | 1 |
| Nickel | 116.3 | 7.552 | 100.0 | mg/Kg | 109% | | 75-125 | 1 | 20 | 1 |
| Selenium | 96.64 | ND | 100.0 | mg/Kg | 97% | | 75-125 | 3 | 20 | 1 |
| Silver | 49.35 | ND | 50.00 | mg/Kg | 99% | | 75-125 | 0 | 20 | 1 |
| Thallium | 107.0 | 0.6906 | 100.0 | mg/Kg | 106% | | 75-125 | 2 | 20 | 1 |
| Vanadium | 144.9 | 28.22 | 100.0 | mg/Kg | 117% | | 75-125 | 4 | 20 | 1 |
| Zinc | 144.8 | 22.56 | 100.0 | mg/Kg | 122% | | 75-125 | 0 | 20 | 1 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | Blank | **Lab ID:** | QC966976 | **Batch:** | 281981 |
| **Matrix:** | Soil | **Method:** | EPA 8260B | **Prep Method:** | EPA 5035 |

| QC966976 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| 3-Chloropropene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Freon 12 | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Chloromethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Vinyl Chloride | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Bromomethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Chloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Trichlorofluoromethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Acetone | ND | | ug/Kg | 100 | 01/18/22 | 01/18/22 |
| Freon 113 | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1-Dichloroethene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Methylene Chloride | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| MTBE | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1-Dichloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 2-Butanone | ND | | ug/Kg | 100 | 01/18/22 | 01/18/22 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 2,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Chloroform | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Bromochloromethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1-Dichloropropene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Carbon Tetrachloride | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2-Dichloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Benzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Trichloroethene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Bromodichloromethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Dibromomethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Toluene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,3-Dichloropropane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Tetrachloroethene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Dibromochloromethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2-Dibromoethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Chlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Ethylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |

# Batch QC

| QC966976 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| m,p-Xylenes | ND | | ug/Kg | 10 | 01/18/22 | 01/18/22 |
| o-Xylene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Styrene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Bromoform | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Isopropylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Propylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Bromobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 2-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 4-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| tert-Butylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| sec-Butylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| para-Isopropyl Toluene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| n-Butylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Hexachlorobutadiene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Naphthalene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Xylene (total) | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| **Surrogates** | | | | **Limits** | | |
| Dibromofluoromethane | 118% | | %REC | 70-130 | 01/18/22 | 01/18/22 |
| 1,2-Dichloroethane-d4 | 96% | | %REC | 70-145 | 01/18/22 | 01/18/22 |
| Toluene-d8 | 102% | | %REC | 70-145 | 01/18/22 | 01/18/22 |
| Bromofluorobenzene | 99% | | %REC | 70-145 | 01/18/22 | 01/18/22 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC966977** | **Batch:** | **281981** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC966977 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 52.16 | 50.00 | ug/Kg | 104% | | 70-131 |
| MTBE | 43.79 | 50.00 | ug/Kg | 88% | | 69-130 |
| Benzene | 48.97 | 50.00 | ug/Kg | 98% | | 70-130 |
| Trichloroethene | 51.11 | 50.00 | ug/Kg | 102% | | 70-130 |
| Toluene | 50.51 | 50.00 | ug/Kg | 101% | | 70-130 |
| Chlorobenzene | 52.76 | 50.00 | ug/Kg | 106% | | 70-130 |
| **Surrogates** | | | | | | |
| Dibromofluoromethane | 62.00 | 50.00 | ug/Kg | 124% | | 70-130 |
| 1,2-Dichloroethane-d4 | 49.24 | 50.00 | ug/Kg | 98% | | 70-145 |
| Toluene-d8 | 51.21 | 50.00 | ug/Kg | 102% | | 70-145 |
| Bromofluorobenzene | 51.93 | 50.00 | ug/Kg | 104% | | 70-145 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample Duplicate** | **Lab ID:** | **QC966978** | **Batch:** | **281981** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC966978 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 52.24 | 50.00 | ug/Kg | 104% | | 70-131 | 0 | 33 |
| MTBE | 44.91 | 50.00 | ug/Kg | 90% | | 69-130 | 3 | 30 |
| Benzene | 49.99 | 50.00 | ug/Kg | 100% | | 70-130 | 2 | 30 |
| Trichloroethene | 50.68 | 50.00 | ug/Kg | 101% | | 70-130 | 1 | 30 |
| Toluene | 51.28 | 50.00 | ug/Kg | 103% | | 70-130 | 2 | 30 |
| Chlorobenzene | 51.86 | 50.00 | ug/Kg | 104% | | 70-130 | 2 | 30 |
| **Surrogates** | | | | | | | | |
| Dibromofluoromethane | 52.40 | 50.00 | ug/Kg | 105% | | 70-130 | | |
| 1,2-Dichloroethane-d4 | 48.42 | 50.00 | ug/Kg | 97% | | 70-145 | | |
| Toluene-d8 | 50.87 | 50.00 | ug/Kg | 102% | | 70-145 | | |
| Bromofluorobenzene | 51.31 | 50.00 | ug/Kg | 103% | | 70-145 | | |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC966982** | **Batch:** | **281982** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC966982 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| 3-Chloropropene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Freon 12 | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Chloromethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Vinyl Chloride | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Bromomethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Chloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Trichlorofluoromethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Acetone | ND | | ug/Kg | 100 | 01/18/22 | 01/18/22 |
| Freon 113 | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1-Dichloroethene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Methylene Chloride | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| MTBE | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1-Dichloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 2-Butanone | ND | | ug/Kg | 100 | 01/18/22 | 01/18/22 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 2,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Chloroform | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Bromochloromethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1-Dichloropropene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Carbon Tetrachloride | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2-Dichloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Benzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Trichloroethene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Bromodichloromethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Dibromomethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Toluene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,3-Dichloropropane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Tetrachloroethene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Dibromochloromethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2-Dibromoethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Chlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Ethylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |

# Batch QC

| QC966982 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| m,p-Xylenes | ND | | ug/Kg | 10 | 01/18/22 | 01/18/22 |
| o-Xylene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Styrene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Bromoform | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Isopropylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Propylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Bromobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 2-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 4-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| tert-Butylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| sec-Butylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| para-Isopropyl Toluene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| n-Butylbenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Hexachlorobutadiene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Naphthalene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| Xylene (total) | ND | | ug/Kg | 5.0 | 01/18/22 | 01/18/22 |
| **Surrogates** | | | | **Limits** | | |
| Dibromofluoromethane | 107% | | %REC | 70-130 | 01/18/22 | 01/18/22 |
| 1,2-Dichloroethane-d4 | 114% | | %REC | 70-145 | 01/18/22 | 01/18/22 |
| Toluene-d8 | 100% | | %REC | 70-145 | 01/18/22 | 01/18/22 |
| Bromofluorobenzene | 102% | | %REC | 70-145 | 01/18/22 | 01/18/22 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC966983** | **Batch:** | **281982** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC966983 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 57.56 | 50.00 | ug/Kg | 115% | | 70-131 |
| MTBE | 49.72 | 50.00 | ug/Kg | 99% | | 69-130 |
| Benzene | 51.47 | 50.00 | ug/Kg | 103% | | 70-130 |
| Trichloroethene | 52.83 | 50.00 | ug/Kg | 106% | | 70-130 |
| Toluene | 49.89 | 50.00 | ug/Kg | 100% | | 70-130 |
| Chlorobenzene | 51.42 | 50.00 | ug/Kg | 103% | | 70-130 |
| **Surrogates** | | | | | | |
| Dibromofluoromethane | 55.65 | 50.00 | ug/Kg | 111% | | 70-130 |
| 1,2-Dichloroethane-d4 | 57.93 | 50.00 | ug/Kg | 116% | | 70-145 |
| Toluene-d8 | 49.69 | 50.00 | ug/Kg | 99% | | 70-145 |
| Bromofluorobenzene | 48.44 | 50.00 | ug/Kg | 97% | | 70-145 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample Duplicate** | **Lab ID:** | **QC966984** | **Batch:** | **281982** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC966984 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 54.63 | 50.00 | ug/Kg | 109% | | 70-131 | 5 | 33 |
| MTBE | 46.59 | 50.00 | ug/Kg | 93% | | 69-130 | 7 | 30 |
| Benzene | 49.91 | 50.00 | ug/Kg | 100% | | 70-130 | 3 | 30 |
| Trichloroethene | 49.80 | 50.00 | ug/Kg | 100% | | 70-130 | 6 | 30 |
| Toluene | 46.62 | 50.00 | ug/Kg | 93% | | 70-130 | 7 | 30 |
| Chlorobenzene | 48.91 | 50.00 | ug/Kg | 98% | | 70-130 | 5 | 30 |
| **Surrogates** | | | | | | | | |
| Dibromofluoromethane | 55.34 | 50.00 | ug/Kg | 111% | | 70-130 | | |
| 1,2-Dichloroethane-d4 | 57.94 | 50.00 | ug/Kg | 116% | | 70-145 | | |
| Toluene-d8 | 49.18 | 50.00 | ug/Kg | 98% | | 70-145 | | |
| Bromofluorobenzene | 47.56 | 50.00 | ug/Kg | 95% | | 70-145 | | |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967034** | **Batch:** | **281996** |
| **Matrix:** | **Miscell.** | **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC967034 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Mercury | ND | | mg/Kg | 0.14 | 01/18/22 | 01/19/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967035** | **Batch:** | **281996** |
| **Matrix:** | **Miscell.** | **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC967035 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Mercury | 0.8725 | 0.8333 | mg/Kg | 105% | | 80-120 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC967036** | **Batch:** | **281996** |
| **Matrix (Source ID):** | **Soil (456839-001)** | **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC967036 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Mercury | 1.031 | ND | 0.9615 | mg/Kg | 107% | | 75-125 | 1.2 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC967037** | **Batch:** | **281996** |
| **Matrix (Source ID):** | **Soil (456839-001)** | **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC967037 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 1.078 | ND | 1.000 | mg/Kg | 108% | | 75-125 | 1 | 20 | 1.2 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967118** | **Batch:** | **282020** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC967118 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| DRO C10-C28 | ND | | mg/Kg | 10 | 01/18/22 | 01/19/22 |
| ORO C28-C44 | ND | | mg/Kg | 20 | 01/18/22 | 01/19/22 |
| **Surrogates** | | | | **Limits** | | |
| n-Triacontane | 100% | | %REC | 70-130 | 01/18/22 | 01/19/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967119** | **Batch:** | **282020** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC967119 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Diesel C10-C28 | 244.7 | 252.7 | mg/Kg | 97% | | 76-122 |
| **Surrogates** | | | | | | |
| n-Triacontane | 9.626 | 10.11 | mg/Kg | 95% | | 70-130 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC967120** | **Batch:** | **282020** |
| **Matrix (Source ID):** | **Soil (456907-019)** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC967120 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Diesel C10-C28 | 241.9 | 4.363 | 250.6 | mg/Kg | 95% | | 62-126 | 1 |
| **Surrogates** | | | | | | | | |
| n-Triacontane | 9.819 | | 10.03 | mg/Kg | 98% | | 70-130 | 1 |

# Batch QC

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|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC967121** | **Batch:** | **282020** |
| **Matrix (Source ID):** | **Soil (456907-019)** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC967121 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel C10-C28 | 234.8 | 4.363 | 246.9 | mg/Kg | 93% | | 62-126 | 1 | 35 | 0.99 |
| **Surrogates** | | | | | | | | | | |
| n-Triacontane | 9.700 | | 9.877 | mg/Kg | 98% | | 70-130 | | | 0.99 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967128** | **Batch:** | **282022** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC967128 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| DRO C10-C28 | ND | | mg/Kg | 10 | 01/18/22 | 01/19/22 |
| ORO C28-C44 | ND | | mg/Kg | 20 | 01/18/22 | 01/19/22 |
| **Surrogates** | | | | **Limits** | | |
| n-Triacontane | 103% | | %REC | 70-130 | 01/18/22 | 01/19/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967129** | **Batch:** | **282022** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC967129 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Diesel C10-C28 | 239.9 | 248.3 | mg/Kg | 97% | | 76-122 |
| **Surrogates** | | | | | | |
| n-Triacontane | 10.17 | 9.930 | mg/Kg | 102% | | 70-130 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC967130** | **Batch:** | **282022** |
| **Matrix (Source ID):** | **Soil (456898-001)** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC967130 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Diesel C10-C28 | 239.5 | 11.17 | 249.3 | mg/Kg | 92% | | 62-126 | 1 |
| **Surrogates** | | | | | | | | |
| n-Triacontane | 9.757 | | 9.970 | mg/Kg | 98% | | 70-130 | 1 |

# Batch QC

**Type:** Matrix Spike Duplicate **Lab ID:** QC967131 **Batch:** 282022
**Matrix (Source ID):** Soil (456898-001) **Method:** EPA 8015M **Prep Method:** EPA 3580

| QC967131 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel C10-C28 | 248.9 | 11.17 | 247.9 | mg/Kg | 96% | | 62-126 | 4 | 35 | 0.99 |
| **Surrogates** | | | | | | | | | | |
| n-Triacontane | 9.729 | | 9.916 | mg/Kg | 98% | | 70-130 | | | 0.99 |

**Type:** Blank **Lab ID:** QC967149 **Batch:** 282030
**Matrix:** Soil **Method:** EPA 7471A **Prep Method:** METHOD

| QC967149 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Mercury | ND | | mg/Kg | 0.14 | 01/18/22 | 01/19/22 |

**Type:** Lab Control Sample **Lab ID:** QC967150 **Batch:** 282030
**Matrix:** Soil **Method:** EPA 7471A **Prep Method:** METHOD

| QC967150 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Mercury | 0.8768 | 0.8333 | mg/Kg | 105% | | 80-120 |

**Type:** Matrix Spike **Lab ID:** QC967151 **Batch:** 282030
**Matrix (Source ID):** Soil (456907-021) **Method:** EPA 7471A **Prep Method:** METHOD

| QC967151 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Mercury | 1.055 | ND | 0.9615 | mg/Kg | 110% | | 75-125 | 1.2 |

**Type:** Matrix Spike Duplicate **Lab ID:** QC967152 **Batch:** 282030
**Matrix (Source ID):** Soil (456907-021) **Method:** EPA 7471A **Prep Method:** METHOD

| QC967152 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 1.036 | ND | 0.9615 | mg/Kg | 108% | | 75-125 | 2 | 20 | 1.2 |

**Type:** Lab Control Sample **Lab ID:** QC967258 **Batch:** 282077
**Matrix:** Soil **Method:** EPA 8015B **Prep Method:** EPA 5035

| QC967258 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| TPH Gasoline | 5.940 | 5.000 | mg/Kg | 119% | | 70-130 |
| **Surrogates** | | | | | | |
| Bromofluorobenzene (FID) | 0.2567 | 0.2000 | mg/Kg | 128% | | 60-140 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample Duplicate** | **Lab ID:** | **QC967259** | **Batch:** | **282077** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5035** |

| QC967259 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| TPH Gasoline | 5.938 | 5.000 | mg/Kg | 119% | | 70-130 | 0 | 20 |
| **Surrogates** | | | | | | | | |
| Bromofluorobenzene (FID) | 0.2577 | 0.2000 | mg/Kg | 129% | | 60-140 | | |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967260** | **Batch:** | **282077** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5035** |

| QC967260 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| TPH Gasoline | ND | | mg/Kg | 3.0 | 01/20/22 | 01/20/22 |
| **Surrogates** | | | | **Limits** | | |
| Bromofluorobenzene (FID) | 96% | | %REC | 60-140 | 01/20/22 | 01/20/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967261** | **Batch:** | **282077** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5035** |

| QC967261 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| TPH Gasoline | ND | | mg/Kg | 75 | 01/20/22 | 01/20/22 |
| **Surrogates** | | | | **Limits** | | |
| Bromofluorobenzene (FID) | 96% | | %REC | 60-140 | 01/20/22 | 01/20/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967688** | **Batch:** | **282078** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5035** |

| QC967688 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| TPH Gasoline | ND | | mg/Kg | 3.0 | 01/21/22 | 01/21/22 |
| **Surrogates** | | | | **Limits** | | |
| Bromofluorobenzene (FID) | 96% | | %REC | 60-140 | 01/21/22 | 01/21/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967689** | **Batch:** | **282078** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5035** |

| QC967689 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| TPH Gasoline | 5.614 | 5.000 | mg/Kg | 112% | | 70-130 |
| **Surrogates** | | | | | | |
| Bromofluorobenzene (FID) | 0.2673 | 0.2000 | mg/Kg | 134% | | 60-140 |

# Batch QC

**Type:** Lab Control Sample Duplicate **Lab ID:** QC967690 **Batch:** 282078
**Matrix:** Soil **Method:** EPA 8015B **Prep Method:** EPA 5035

| QC967690 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| TPH Gasoline | 5.644 | 5.000 | mg/Kg | 113% | | 70-130 | 1 | 20 |
| **Surrogates** | | | | | | | | |
| Bromofluorobenzene (FID) | 0.2670 | 0.2000 | mg/Kg | 133% | | 60-140 | | |

**Type:** Matrix Spike **Lab ID:** QC967691 **Batch:** 282078
**Matrix (Source ID):** Soil (456861-003) **Method:** EPA 8015B **Prep Method:** EPA 5035

| QC967691 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| TPH Gasoline | 152.7 | ND | 127.1 | mg/Kg | 120% | | 70-130 | 25 |
| **Surrogates** | | | | | | | | |
| Bromofluorobenzene (FID) | 6.459 | | 5.085 | mg/Kg | 127% | | 60-140 | 25 |

**Type:** Matrix Spike Duplicate **Lab ID:** QC967692 **Batch:** 282078
**Matrix (Source ID):** Soil (456861-003) **Method:** EPA 8015B **Prep Method:** EPA 5035

| QC967692 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH Gasoline | 154.3 | ND | 127.1 | mg/Kg | 121% | | 70-130 | 1 | 20 | 25 |
| **Surrogates** | | | | | | | | | | |
| Bromofluorobenzene (FID) | 6.504 | | 5.085 | mg/Kg | 128% | | 60-140 | | | 25 |

**Type:** Blank **Lab ID:** QC967693 **Batch:** 282078
**Matrix:** Soil **Method:** EPA 8015B **Prep Method:** EPA 5035

| QC967693 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| TPH Gasoline | ND | | mg/Kg | 75 | 01/21/22 | 01/21/22 |
| **Surrogates** | | | | **Limits** | | |
| Bromofluorobenzene (FID) | 93% | | %REC | 60-140 | 01/21/22 | 01/21/22 |

**Type:** Lab Control Sample **Lab ID:** QC967290 **Batch:** 282097
**Matrix:** Soil **Method:** EPA 8015B **Prep Method:** EPA 5035

| QC967290 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| TPH Gasoline | 6.095 | 5.000 | mg/Kg | 122% | | 70-130 |
| **Surrogates** | | | | | | |
| Bromofluorobenzene (FID) | 0.2646 | 0.2000 | mg/Kg | 132% | | 60-140 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC967291** | **Batch:** | **282097** |
| **Matrix (Source ID):** | **Soil (456957-001)** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5030B** |

| QC967291 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| TPH Gasoline | 5.155 | ND | 5.000 | mg/Kg | 103% | | 70-130 | 1 |
| **Surrogates** | | | | | | | | |
| Bromofluorobenzene (FID) | 0.2503 | | 0.2000 | mg/Kg | 125% | | 60-140 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC967292** | **Batch:** | **282097** |
| **Matrix (Source ID):** | **Soil (456957-001)** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5030B** |

| QC967292 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH Gasoline | 5.062 | ND | 5.000 | mg/Kg | 101% | | 70-130 | 2 | 20 | 1 |
| **Surrogates** | | | | | | | | | | |
| Bromofluorobenzene (FID) | 0.2497 | | 0.2000 | mg/Kg | 125% | | 60-140 | | | 1 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967293** | **Batch:** | **282097** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5035** |

| QC967293 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| TPH Gasoline | ND | | mg/Kg | 3.0 | 01/19/22 | 01/19/22 |
| **Surrogates** | | | | **Limits** | | |
| Bromofluorobenzene (FID) | 93% | | %REC | 60-140 | 01/19/22 | 01/19/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967294** | **Batch:** | **282097** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5035** |

| QC967294 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| TPH Gasoline | ND | | mg/Kg | 75 | 01/19/22 | 01/19/22 |
| **Surrogates** | | | | **Limits** | | |
| Bromofluorobenzene (FID) | 95% | | %REC | 60-140 | 01/19/22 | 01/19/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967603** | **Batch:** | **282204** |
| **Matrix:** | **Soil** | **Method:** | **EPA 314.0** | **Prep Method:** | **METHOD** |

| QC967603 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Perchlorate | 0.4316 | 0.4955 | mg/Kg | 87% | | 85-115 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967604** | **Batch:** | **282204** |
| **Matrix:** | **Soil** | **Method:** | **EPA 314.0** | **Prep Method:** | **METHOD** |

| QC967604 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Perchlorate | ND | | mg/Kg | 0.040 | 01/20/22 | 01/22/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC967619** | **Batch:** | **282204** |
| **Matrix (Source ID):** | **Soil (456907-012)** | **Method:** | **EPA 314.0** | **Prep Method:** | **METHOD** |

| QC967619 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 0.4063 | ND | 0.4971 | mg/Kg | 82% | | 80-120 | 0.99 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC967620** | **Batch:** | **282204** |
| **Matrix (Source ID):** | **Soil (456907-012)** | **Method:** | **EPA 314.0** | **Prep Method:** | **METHOD** |

| QC967620 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 0.3889 | ND | 0.4979 | mg/Kg | 78% | * | 80-120 | 5 | 15 | 1 |

| | |
|---|---|
| * | Value is outside QC limits |
| ND | Not Detected |

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| | |
|---|---|
| Lab Job Number: | 457099 |
| Report Level: | II |
| Report Date: | 01/28/2022 |

**Analytical Report** *prepared for:*

Susan Smith
Dudek
605 3rd Street
Encinitas, CA 92024

Project: NORCO COLLEGE - 13705, Norco College CHP&K, Norco, CA

*Authorized for release by:*

Patty Mata, Project Manager
patty.mata@enthalpy.com

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

# Sample Summary

Susan Smith
Dudek
605 3rd Street
Encinitas, CA 92024

Lab Job #: 457099
Project No: NORCO COLLEGE
Location: 13705, Norco College CHP&K, Norco, CA
Date Received: 01/20/22

| Sample ID | Lab ID | Collected | Matrix |
|---|---|---|---|
| S8-5 | 457099-001 | 01/19/22 08:55 | Soil |
| S8-10 | 457099-002 | 01/19/22 09:00 | Soil |
| S8-15 | 457099-003 | 01/19/22 09:05 | Soil |
| S8-20 | 457099-004 | 01/19/22 09:15 | Soil |
| S8-25 | 457099-005 | 01/19/22 09:20 | Soil |
| S8-30 | 457099-006 | 01/19/22 09:25 | Soil |
| S8-35 | 457099-007 | 01/19/22 09:30 | Soil |
| S8-40 | 457099-008 | 01/19/22 09:55 | Soil |
| S8-45 | 457099-009 | 01/19/22 10:05 | Soil |
| S8-GW | 457099-010 | 01/19/22 11:45 | Water |
| S9-5 | 457099-011 | 01/20/22 08:55 | Soil |
| S9-10 | 457099-012 | 01/20/22 09:05 | Soil |
| S9-15 | 457099-013 | 01/20/22 09:15 | Soil |
| S9-20 | 457099-014 | 01/20/22 09:25 | Soil |
| S9-25 | 457099-015 | 01/20/22 09:35 | Soil |
| S9-30 | 457099-016 | 01/20/22 10:00 | Soil |
| S9-35 | 457099-017 | 01/20/22 10:15 | Soil |
| S9-40 | 457099-018 | 01/20/22 10:25 | Soil |
| S9-45 | 457099-019 | 01/20/22 10:40 | Soil |
| S9-GW | 457099-020 | 01/20/22 11:50 | Water |
| S10-GW | 457099-021 | 01/19/22 12:00 | Water |

# Case Narrative

| | | |
|---|---|---|
| Dudek | Lab Job Number: | 457099 |
| 605 3rd Street | Project No: | NORCO COLLEGE |
| Encinitas, CA 92024 | Location: | 13705, Norco College CHP&K, Norco, CA |
| Susan Smith | Date Received: | 01/20/22 |

This data package contains sample and QC results for eighteen soil samples and three water samples, requested for the above referenced project on 01/20/22. The samples were received cold and intact.

**Metals (EPA 6010B and EPA 7471A) Soil:**

Low recoveries were observed for barium and antimony in the MS/MSD for batch 282356; the parent sample was not a project sample, the LCS was within limits, and the associated RPDs were within limits. High recoveries were observed for chromium, copper, and nickel in the MSD for batch 282356; the LCS was within limits. High RPD was observed for copper in the MS/MSD for batch 282356. Low recoveries were observed for antimony in the MS/MSD of S9-5 (lab # 457099-011); the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

**Perchlorate by Ion Chromatography (EPA 314.0):**

Selected samples were diluted due to relatively high conductivity readings. The reporting limits were elevated due to the dilutions. No analytical problems were encountered.

**ENTHALPY ANALYTICAL**

**Enthalpy Analytical - Orange**
931 W. Barkley Avenue, Orange, CA 92868
Phone 714-771-6900

## Chain of Custody Record

Lab No: 457099
Page: 1 of 3

| Turn Around Time (rush by advanced notice only) | | | | | |
|---|---|---|---|---|---|
| Standard: | 1 | 5 Day: | | 3 Day: | |
| 2 Day: | | 1 Day: | | Custom TAT: | |

**Matrix:** A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = $HNO_3$ 4 = $H_2SO_4$ 5 = NaOH 6 = Other

**Sample Receipt Temp:**
(lab use only)

| CUSTOMER INFORMATION | | PROJECT INFORMATION | |
|---|---|---|---|
| Company: | DUDEK | Name: | NORCO COLLEGE CHPFR |
| Report To: | SUSIE SMITH | Number: | 13705 |
| Email: | SSMITH@DUDEK.COM | P.O. #: | |
| Address: | 605 3RD STREET | Address: | 2001 3RD STREET |
| | ENCINITAS CA 92024 | | NORCO CA 92860 |
| Phone: | 1-760-840-7526 | Global ID: | |
| Fax: | | Sampled By: | HUGH MCMANUS |

**Analysis Request**

| | Sample ID | Sampling Date | Sampling Time | Matrix | Container No. / Size | Pres. | TPH CARBON CHAIN 8015M | VOCS 8260B | *TITLE 22 METALS 6010B/7471A* | PERCHLORATE 314.1 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S8-5 | 1/19/22 | 8:55 | S | 5-VOA<br>1-SLEEVE | X | X | X | X | | | | | | | |
| 2 | S8-10 | | 9:00 | S | | Y | X | X | X | | | | | | | |
| 3 | S8-15 | | 9:05 | S | | Y | X | X | X | | | | | | | |
| 4 | S8-20 | | 9:15 | S | | Y | X | X | X | | | | | | | |
| 5 | S8-25 | | 9:20 | S | | Y | X | X | X | | | | | | | |
| 6 | S8-30 | | 9:25 | S | | Y | X | X | X | | | | | | | |
| | S8-35 | | 9:30 | S | | Y | X | X | X | | | | | | | |
| 8 | S8-40 | | 9:55 | S | | Y | X | X | X | | | | | | | |
| 9 | S8-45 | | 10:05 | S | | Y | X | X | X | | | | | | | |
| 10 | S8-GW | | 11:45 | GW | 6 VOA 1 AMBER<br>2 PLASTIC | X | X | X | X | X | | | | | | |

**Test Instructions / Comments**

*FIELD FILTERED FOR DISSOLVED METALS FOR SAMPLE S8-GW

*GW SAMPLES FOR DISSOLVED METALS

| | Signature | Print Name | Company / Title | Date / Time |
|---|---|---|---|---|
| Relinquished By: | Hugh McManus | HUGH MCMANUS | DUDEK / GEOLOGIST | 1/20/22 / 1435 |
| Received By: | | G. Kim | ~~EA~~ / Tech | 1/20/22 1435 |
| Relinquished By: | | | | |
| Received By: | | | | |
| Relinquished By: | | | | |
| Received By: | | | | |

# ENTHALPY ANALYTICAL

**Enthalpy Analytical - Orange**

931 W. Barkley Avenue, Orange, CA 92868
Phone 714-771-6900

**Chain of Custody Record**

Lab No: 457099

Page: 2 of 3

**Turn Around Time (rush by advanced notice only)**

| | | | | | |
|---|---|---|---|---|---|
| Standard: | / | 5 Day: | | 3 Day: | |
| 2 Day: | | 1 Day: | | Custom TAT: | |

**Matrix:** A = Air S = Soil/Solid W = Water DW = Drinking Wate SD = Sediment PP = Pure Product SEA = Sea Water SW = Swab T = Tissue WP = Wipe O = Other

**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = $HNO_3$ 4 = $H_2SO_4$ 5 = NaOH 6 = Other

**Sample Receipt Temp:**
(lab use only)

| CUSTOMER INFORMATION | | PROJECT INFORMATION | |
|---|---|---|---|
| Company: | DUDEK | Name: | NORCO COLLEGE CHP+A |
| Report To: | SUSIE SMITH | Number: | 13705 |
| Email: | SSMITH@DUDEK.COM | P.O. #: | |
| Address: | 605 3RD STREET | Address: | 2001 3RD STREET |
| | ENCINITAS CA 92024 | | NORCO CA 92860 |
| Phone: | 760-840-7526 | Global ID: | |
| Fax: | | Sampled By: | HUGH McMANUS |

**Analysis Request**

| | Sample ID | Sampling Date | Sampling Time | Matrix | Container No. / Size | Pres. | TPH CARBON CHAIN 8015M | VOCS 8260B | *TITLE 22 METALS 6010B/7471A | PERCHLORATE 314.1 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S9-5 | ~~1/19/22~~ HM 1/20/22 | 8:55 | S | 5-VOA<br>1-SLEEVE | Y | X | X | X | |
| 2 | S9-10 | | 9:05 | S | | Y | X | X | X | |
| 3 | S9-15 | | 9:15 | S | | Y | X | X | X | |
| 4 | S9-20 | | 9:25 | S | | Y | X | X | X | |
| 5 | S9-25 | | 9:35 | S | | Y | X | X | X | |
| 6 | S9-30 | | 10:00 | S | | Y | X | X | X | |
| | S9-35 | | 10:15 | S | | Y | X | X | X | |
| 8 | S9-40 | | 10:25 | S | | Y | X | X | X | |
| 9 | S9-45 | | 10:40 | S | | Y | X | X | X | |
| 10 | S9-GW | | 11:50 | GW | 6 VOA 1 AMB<br>2 PLASTIC | Y | X | X | X | X |

**Test Instructions / Comments**

*FIELD FILTERED FOR DISSOLVED METALS FOR SAMPLE S9-GW

*GW SAMPLES FOR DISSOLVED METALS

| | Signature | Print Name | Company / Title | Date / Time |
|---|---|---|---|---|
| Relinquished By: | | HUGH McMANUS | DUDEK / GEOLOGIST | 1/20/22 / 14:35 |
| Received By: | | G Kim | EA | 1/20/22 1435 |
| Relinquished By: | | | | |
| Received By: | | | | |
| Relinquished By: | | | | |
| Received By: | | | | |

# ENTHALPY ANALYTICAL

**Enthalpy Analytical - Orange**

931 W. Barkley Avenue, Orange, CA 92868
Phone 714-771-6900

## Chain of Custody Record

Lab No: 457099

Page: 3 of 3

**Turn Around Time (rush by advanced notice only)**

| | | | | | |
|---|---|---|---|---|---|
| Standard: | | 5 Day: | | 3 Day: | |
| 2 Day: | | 1 Day: | | Custom TAT: | |

**Matrix:** A = Air S = Soil/Solid
W = Water DW = Drinking Wate SD = Sediment
PP = Pure Product SEA = Sea Water
SW = Swab T = Tissue WP = Wipe O = Other

**Preservatives:**
1 = $Na_2S_2O_3$ 2 = HCl 3 = $HNO_3$
4 = $H_2SO_4$ 5 = NaOH 6 = Other

**Sample Receipt Temp:**
0.5/0.2 7.8/8 IR-
5.2/0.4
(lab use only)

| CUSTOMER INFORMATION | | PROJECT INFORMATION | |
|---|---|---|---|
| Company: | DUDEK | Name: | NORCO COLLEGE CHP+H |
| Report To: | SUSIE SMITH | Number: | 13705 |
| Email: | SSMITH@DUDEK.com | P.O. #: | |
| Address: | 605 3RD STREET | Address: | 2001 3RD STREET |
| | ENCINITAS CA 92024 | | NORCO CA 92860 |
| Phone: | 760-840-7526 | Global ID: | |
| Fax: | | Sampled By: | HUGH MCMANUS |

**Analysis Request**

| | Sample ID | Sampling Date | Sampling Time | Matrix | Container No. / Size | Pres. | TPH CARBON CHAIN 8015M | VOCS 8260B | *TITLE 22 METALS 6010B/7471A | PERCHLORATE 314.1 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | S10-GW | 1/19/22 | 12:00 | GW | 6 VOA 1 AMB<br>2 PLASTIC | Y | X | X | X | X | | | | | | |
| 2 | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |

**Test Instructions / Comments**

*FIELD FILTERED FOR DISSOLVED METALS FOR SAMPLE S10-GW

*GW SAMPLES FOR DISSOLVED METALS

| | Signature | Print Name | Company / Title | Date / Time |
|---|---|---|---|---|
| Relinquished By: | Hugh McManus | HUGH MCMANUS | DUDEK / GEOLOGIST | 1/20/22 14:35 |
| Received By: | | G. Kim | EA | 1/20/22 1435 |
| Relinquished By: | | | | |
| Received By: | | | | |
| Relinquished By: | | | | |
| Received By: | | | | |

ENTHALPY
ANALYTICAL

## SAMPLE ACCEPTANCE CHECKLIST

**Section 1**

Client: Dudek
Project: Norco College
Date Received: 01/20/2022
Sampler's Name Present: ☑ Yes ☐ No

**Section 2**

Sample(s) received in a cooler? ☑ Yes, How many? 3 ☐ No (skip section 2)
Sample Temp (°C) (No Cooler) : ______
Sample Temp (°C), One from each cooler: #1: 0.5 #2: 3.8 #3: 5.2 #4: ______

*(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)*

Shipping Information: ______

**Section 3**

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam
☐ Paper ☐ None ☐ Other ______
Cooler Temp (°C): #1: 0.2 #2: 0.2 #3: 0.4 #4: ______

| **Section 4** | YES | NO | N/A |
|---|---|---|---|
| Was a COC received? | ✓ | | ▨ |
| Are sample IDs present? | ✓ | | ▨ |
| Are sampling dates & times present? | ✓ | | ▨ |
| Is a relinquished signature present? | ✓ | | ▨ |
| Are the tests required clearly indicated on the COC? | ✓ | | ▨ |
| Are custody seals present? | | ✓ | ▨ |
| If custody seals are present, were they intact? | | | ✓ |
| Are all samples sealed in plastic bags? (Recommended for Microbiology samples) | ✓ | | |
| Did all samples arrive intact? If no, indicate in Section 4 below. | ✓ | | ▨ |
| Did all bottle labels agree with COC? (ID, dates and times) | ✓ | | ▨ |
| Were the samples collected in the correct containers for the required tests? | ✓ | | ▨ |
| Are the containers labeled with the correct preservatives? | ✓ | | |
| Is there headspace in the VOA vials greater than 5-6 mm in diameter? | | ✓ | |
| Was a sufficient amount of sample submitted for the requested tests? | ✓ | | ▨ |

**Section 5** Explanations/Comments

**Section 6**

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: ______ Date/Time ______
☐ Email (email sent to/on): ______ / ______

Project Manager's response:

Completed By: ______ Date: 1/20/2022

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal
Sample Acceptance Checklist – Rev 4, 8/8/2017

# Analysis Results for 457099

Susan Smith
Dudek
605 3rd Street
Encinitas, CA 92024

Lab Job #: 457099
Project No: NORCO COLLEGE
Location: 13705, Norco College CHP&K, Norco, CA
Date Received: 01/20/22

**Sample ID: S8-5** **Lab ID: 457099-001** **Collected: 01/19/22 08:55**
**Matrix: Soil**

| 457099-001 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Arsenic | **3.2** | | mg/Kg | 0.96 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Barium | **47** | | mg/Kg | 0.96 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.48 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.48 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Chromium | **13** | | mg/Kg | 0.96 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cobalt | **4.9** | | mg/Kg | 0.48 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Copper | **10** | | mg/Kg | 0.96 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Lead | **13** | | mg/Kg | 0.96 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Molybdenum | ND | | mg/Kg | 0.96 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Nickel | **9.5** | | mg/Kg | 0.96 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Selenium | ND | | mg/Kg | 2.9 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Silver | ND | | mg/Kg | 0.48 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Thallium | ND | | mg/Kg | 2.9 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Vanadium | **25** | | mg/Kg | 0.96 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Zinc | **31** | | mg/Kg | 4.8 | 0.96 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.1 | 282367 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.5 | 0.82 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 91% | | %REC | 60-140 | 0.82 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 98% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

| 457099-001 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Freon 12 | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Vinyl Chloride | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromomethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Trichlorofluoromethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Acetone | ND | | ug/Kg | 85 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Freon 113 | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Methylene Chloride | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| MTBE | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2-Butanone | ND | | ug/Kg | 85 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloroform | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromochloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Carbon Tetrachloride | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Benzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Trichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromodichloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Dibromomethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Toluene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Tetrachloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Dibromochloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Ethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| m,p-Xylenes | ND | | ug/Kg | 8.5 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| o-Xylene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Styrene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromoform | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Isopropylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

| 457099-001 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Propylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 4-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| tert-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| sec-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| n-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Hexachlorobutadiene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Naphthalene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Xylene (total) | ND | | ug/Kg | 4.2 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 78% | | %REC | 70-145 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane-d4 | 83% | | %REC | 70-145 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Toluene-d8 | 102% | | %REC | 70-145 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromofluorobenzene | 103% | | %REC | 70-145 | 0.85 | 282253 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

| | | |
|---|---|---|
| **Sample ID: S8-10** | **Lab ID: 457099-002** | **Collected: 01/19/22 09:00** |
| | **Matrix: Soil** | |

| 457099-002 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Arsenic | **2.6** | | mg/Kg | 0.95 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Barium | **73** | | mg/Kg | 0.95 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.48 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.48 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Chromium | **25** | | mg/Kg | 0.95 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cobalt | **11** | | mg/Kg | 0.48 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Copper | **10** | | mg/Kg | 0.95 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Lead | **25** | | mg/Kg | 0.95 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Molybdenum | ND | | mg/Kg | 0.95 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Nickel | **14** | | mg/Kg | 0.95 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Selenium | ND | | mg/Kg | 2.9 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Silver | ND | | mg/Kg | 0.48 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Thallium | ND | | mg/Kg | 2.9 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Vanadium | **42** | | mg/Kg | 0.95 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Zinc | **130** | | mg/Kg | 4.8 | 0.95 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 282367 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.3 | 0.75 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 90% | | %REC | 60-140 | 0.75 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 112% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Freon 12 | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Chloromethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Vinyl Chloride | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Bromomethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Chloroethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

| 457099-002 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Acetone | ND | | ug/Kg | 77 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Freon 113 | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Methylene Chloride | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| MTBE | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 2-Butanone | ND | | ug/Kg | 77 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Chloroform | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Bromochloromethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Carbon Tetrachloride | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Benzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Trichloroethene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Bromodichloromethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Dibromomethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Toluene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Tetrachloroethene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Dibromochloromethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Chlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Ethylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| m,p-Xylenes | ND | | ug/Kg | 7.7 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| o-Xylene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Styrene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Bromoform | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Isopropylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Propylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Bromobenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 2-Chlorotoluene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 4-Chlorotoluene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |

# Analysis Results for 457099

| 457099-002 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| sec-Butylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| n-Butylbenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Hexachlorobutadiene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Naphthalene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Xylene (total) | ND | | ug/Kg | 3.8 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 107% | | %REC | 70-145 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| 1,2-Dichloroethane-d4 | 102% | | %REC | 70-145 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Toluene-d8 | 97% | | %REC | 70-145 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |
| Bromofluorobenzene | 97% | | %REC | 70-145 | 0.77 | 282420 | 01/25/22 | 01/25/22 | RAO |

# Analysis Results for 457099

**Sample ID: S8-15** **Lab ID: 457099-003** **Collected: 01/19/22 09:05**
**Matrix: Soil**

| 457099-003 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.0 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Arsenic | **1.8** | | mg/Kg | 0.99 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Barium | **79** | | mg/Kg | 0.99 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.50 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.50 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Chromium | **35** | | mg/Kg | 0.99 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cobalt | **16** | | mg/Kg | 0.50 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Copper | **9.3** | | mg/Kg | 0.99 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Lead | **30** | | mg/Kg | 0.99 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Molybdenum | ND | | mg/Kg | 0.99 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Nickel | **15** | | mg/Kg | 0.99 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Selenium | ND | | mg/Kg | 3.0 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Silver | ND | | mg/Kg | 0.50 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Thallium | ND | | mg/Kg | 3.0 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Vanadium | **59** | | mg/Kg | 0.99 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Zinc | **200** | | mg/Kg | 5.0 | 0.99 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 282367 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.2 | 0.74 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 88% | | %REC | 60-140 | 0.74 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 106% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Freon 12 | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloromethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Vinyl Chloride | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromomethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloroethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

| 457099-003 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Acetone | ND | | ug/Kg | 76 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Freon 113 | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Methylene Chloride | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| MTBE | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2-Butanone | ND | | ug/Kg | 76 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloroform | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromochloromethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Carbon Tetrachloride | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Benzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Trichloroethene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromodichloromethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Dibromomethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Toluene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Tetrachloroethene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Dibromochloromethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Ethylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| m,p-Xylenes | ND | | ug/Kg | 7.6 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| o-Xylene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Styrene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromoform | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Isopropylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Propylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromobenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2-Chlorotoluene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 4-Chlorotoluene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

| 457099-003 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| sec-Butylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| n-Butylbenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Hexachlorobutadiene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Naphthalene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Xylene (total) | ND | | ug/Kg | 3.8 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 84% | | %REC | 70-145 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane-d4 | 108% | | %REC | 70-145 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Toluene-d8 | 103% | | %REC | 70-145 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromofluorobenzene | 104% | | %REC | 70-145 | 0.76 | 282253 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

**Sample ID: S8-20** **Lab ID: 457099-004** **Collected: 01/19/22 09:15**
**Matrix: Soil**

| 457099-004 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.6 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Arsenic | **1.8** | | mg/Kg | 0.85 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Barium | **120** | | mg/Kg | 0.85 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.43 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.43 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Chromium | **31** | | mg/Kg | 0.85 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cobalt | **8.6** | | mg/Kg | 0.43 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Copper | **8.9** | | mg/Kg | 0.85 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Lead | **8.2** | | mg/Kg | 0.85 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Molybdenum | ND | | mg/Kg | 0.85 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Nickel | **10** | | mg/Kg | 0.85 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Selenium | ND | | mg/Kg | 2.6 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Silver | ND | | mg/Kg | 0.43 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Thallium | ND | | mg/Kg | 2.6 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Vanadium | **53** | | mg/Kg | 0.85 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Zinc | **79** | | mg/Kg | 4.3 | 0.85 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.14 | 1 | 282367 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.4 | 0.79 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 89% | | %REC | 60-140 | 0.79 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 114% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Freon 12 | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloromethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Vinyl Chloride | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromomethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

| 457099-004 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Acetone | ND | | ug/Kg | 83 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Freon 113 | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Methylene Chloride | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| MTBE | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2-Butanone | ND | | ug/Kg | 83 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloroform | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromochloromethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Carbon Tetrachloride | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Benzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Trichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromodichloromethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Dibromomethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Toluene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Tetrachloroethene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Dibromochloromethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Ethylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| m,p-Xylenes | ND | | ug/Kg | 8.3 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| o-Xylene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Styrene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromoform | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Isopropylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Propylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 4-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

| 457099-004 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| sec-Butylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| n-Butylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Hexachlorobutadiene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Naphthalene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Xylene (total) | ND | | ug/Kg | 4.2 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 83% | | %REC | 70-145 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane-d4 | 76% | | %REC | 70-145 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Toluene-d8 | 104% | | %REC | 70-145 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromofluorobenzene | 106% | | %REC | 70-145 | 0.83 | 282253 | 01/21/22 | 01/21/22 | RAO |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

**Sample ID: S8-25** **Lab ID: 457099-005** **Collected: 01/19/22 09:20**
**Matrix: Soil**

| 457099-005 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Arsenic | **1.4** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Barium | **120** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.50 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.50 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Chromium | **28** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cobalt | **7.3** | | mg/Kg | 0.50 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Copper | **14** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Lead | **12** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Molybdenum | ND | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Nickel | **9.7** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Selenium | ND | | mg/Kg | 3.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Silver | ND | | mg/Kg | 0.50 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Thallium | ND | | mg/Kg | 3.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Vanadium | **44** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Zinc | **74** | | mg/Kg | 5.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 282367 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 3.2 | 1.1 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 91% | | %REC | 60-140 | 1.1 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 123% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Freon 12 | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloromethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Vinyl Chloride | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromomethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

| 457099-005 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Acetone | ND | | ug/Kg | 81 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Freon 113 | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Methylene Chloride | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| MTBE | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2-Butanone | ND | | ug/Kg | 81 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chloroform | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromochloromethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Carbon Tetrachloride | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Benzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Trichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromodichloromethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Dibromomethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Toluene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Tetrachloroethene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Dibromochloromethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Chlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Ethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| m,p-Xylenes | ND | | ug/Kg | 8.1 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| o-Xylene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Styrene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromoform | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Isopropylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Propylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 2-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 4-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |

## Analysis Results for 457099

| 457099-005 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| sec-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| n-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Hexachlorobutadiene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Naphthalene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Xylene (total) | ND | | ug/Kg | 4.0 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 87% | | %REC | 70-145 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane-d4 | 95% | | %REC | 70-145 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Toluene-d8 | 103% | | %REC | 70-145 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |
| Bromofluorobenzene | 106% | | %REC | 70-145 | 0.81 | 282253 | 01/21/22 | 01/21/22 | RAO |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

**Sample ID:** **S8-30** **Lab ID:** **457099-006** **Collected:** **01/19/22 09:25**
**Matrix:** **Soil**

| 457099-006 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.8 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Arsenic | **0.98** | | mg/Kg | 0.93 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Barium | **120** | | mg/Kg | 0.93 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.47 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.47 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Chromium | **19** | | mg/Kg | 0.93 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cobalt | **8.6** | | mg/Kg | 0.47 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Copper | **25** | | mg/Kg | 0.93 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Lead | **10** | | mg/Kg | 0.93 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Molybdenum | ND | | mg/Kg | 0.93 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Nickel | **11** | | mg/Kg | 0.93 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Selenium | ND | | mg/Kg | 2.8 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Silver | ND | | mg/Kg | 0.47 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Thallium | ND | | mg/Kg | 2.8 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Vanadium | **48** | | mg/Kg | 0.93 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Zinc | **54** | | mg/Kg | 4.7 | 0.93 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 282367 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.5 | 0.82 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 88% | | %REC | 60-140 | 0.82 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 116% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-006 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 85 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 85 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 8.5 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-006 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 104% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 88% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 103% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 100% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

**Sample ID: S8-35** **Lab ID: 457099-007** **Collected: 01/19/22 09:30**
**Matrix: Soil**

| 457099-007 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.1 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Arsenic | ND | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Barium | **170** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.52 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.52 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Chromium | **20** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cobalt | **7.6** | | mg/Kg | 0.52 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Copper | **15** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Lead | **11** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Molybdenum | ND | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Nickel | **8.5** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Selenium | ND | | mg/Kg | 3.1 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Silver | ND | | mg/Kg | 0.52 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Thallium | ND | | mg/Kg | 3.1 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Vanadium | **45** | | mg/Kg | 1.0 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Zinc | **50** | | mg/Kg | 5.2 | 1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 282367 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.2 | 0.72 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 91% | | %REC | 60-140 | 0.72 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 111% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-007 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 72 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 72 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 7.2 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-007 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 3.6 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 105% | | %REC | 70-145 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 87% | | %REC | 70-145 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 99% | | %REC | 70-145 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 99% | | %REC | 70-145 | 0.72 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

**Sample ID:** S8-40 **Lab ID:** 457099-008 **Collected:** 01/19/22 09:55
**Matrix:** Soil

| 457099-008 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.2 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Arsenic | ND | | mg/Kg | 1.1 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Barium | **100** | | mg/Kg | 1.1 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.53 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.53 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Chromium | **13** | | mg/Kg | 1.1 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cobalt | **4.3** | | mg/Kg | 0.53 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Copper | **6.1** | | mg/Kg | 1.1 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Lead | **6.3** | | mg/Kg | 1.1 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Molybdenum | ND | | mg/Kg | 1.1 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Nickel | **5.1** | | mg/Kg | 1.1 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Selenium | ND | | mg/Kg | 3.2 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Silver | ND | | mg/Kg | 0.53 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Thallium | ND | | mg/Kg | 3.2 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Vanadium | **27** | | mg/Kg | 1.1 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Zinc | **42** | | mg/Kg | 5.3 | 1.1 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 282367 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.4 | 0.79 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 85% | | %REC | 60-140 | 0.79 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 111% | | %REC | 70-130 | 0.99 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-008 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 82 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 82 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 8.2 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

| 457099-008 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 105% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 88% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 99% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 99% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

**Sample ID:** **S8-45** **Lab ID:** **457099-009** **Collected:** **01/19/22 10:05**
**Matrix:** **Soil**

| 457099-009 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.8 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Arsenic | ND | | mg/Kg | 0.94 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Barium | **130** | | mg/Kg | 0.94 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.47 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.47 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Chromium | **28** | | mg/Kg | 0.94 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Cobalt | **6.2** | | mg/Kg | 0.47 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Copper | **13** | | mg/Kg | 0.94 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Lead | **9.0** | | mg/Kg | 0.94 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Molybdenum | ND | | mg/Kg | 0.94 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Nickel | **7.4** | | mg/Kg | 0.94 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Selenium | ND | | mg/Kg | 2.8 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Silver | ND | | mg/Kg | 0.47 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Thallium | ND | | mg/Kg | 2.8 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Vanadium | **36** | | mg/Kg | 0.94 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Zinc | **63** | | mg/Kg | 4.7 | 0.94 | 282356 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.14 | 1 | 282367 | 01/24/22 | 01/24/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.0 | 0.68 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 89% | | %REC | 60-140 | 0.68 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 110% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-009 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 63 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 63 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 6.3 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-009 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 3.1 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 104% | | %REC | 70-145 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 90% | | %REC | 70-145 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 104% | | %REC | 70-145 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 104% | | %REC | 70-145 | 0.63 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

**Sample ID: S8-GW** **Lab ID: 457099-010** **Collected: 01/19/22 11:45**

| 457099-010 Analyte | Result | Qual | Units | RL | Matrix | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 314.0<br>Prep Method: METHOD | | | | | | | | | | |
| Perchlorate | ND | | ug/L | 8.0 | Water | 2 | 282294 | 01/21/22 | 01/22/22 | KLN |
| Method: EPA 6010B<br>Prep Method: METHOD | | | | | | | | | | |
| Antimony | ND | | mg/L | 0.030 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Arsenic | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Barium | **0.30** | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Beryllium | ND | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Cadmium | ND | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Chromium | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Cobalt | **0.0051** | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Copper | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Lead | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Molybdenum | **0.011** | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Nickel | **0.017** | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Selenium | ND | | mg/L | 0.030 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Silver | ND | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Thallium | ND | | mg/L | 0.050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Vanadium | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Zinc | ND | | mg/L | 0.050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Method: EPA 7470A<br>Prep Method: METHOD | | | | | | | | | | |
| Mercury | ND | | ug/L | 0.40 | Filtrate | 1 | 282594 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5030B | | | | | | | | | | |
| TPH Gasoline | ND | | ug/L | 50 | Water | 1 | 282266 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | | |
| Bromofluorobenzene (FID) | 62% | | %REC | 60-140 | Water | 1 | 282266 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015B<br>Prep Method: EPA 3510C | | | | | | | | | | |
| TPH (C13-C28) | **0.096** | | mg/L | 0.094 | Water | 0.94 | 282150 | 01/21/22 | 01/26/22 | TJW |
| TPH (C29-C44) | ND | | mg/L | 0.28 | Water | 0.94 | 282150 | 01/21/22 | 01/26/22 | TJW |
| **Surrogates** | | | | **Limits** | | | | | | |
| n-Triacontane | 87% | | %REC | 35-130 | Water | 0.94 | 282150 | 01/21/22 | 01/26/22 | TJW |
| Method: EPA 8260B<br>Prep Method: EPA 5030B | | | | | | | | | | |
| 3-Chloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Freon 12 | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Vinyl Chloride | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromomethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |

## Analysis Results for 457099

| 457099-010 Analyte | Result | Qual | Units | RL | Matrix | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Acetone | ND | | ug/L | 100 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Freon 113 | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Methylene Chloride | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| MTBE | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| trans-1,2-Dichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 2-Butanone | ND | | ug/L | 100 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| cis-1,2-Dichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 2,2-Dichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chloroform | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromochloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1-Trichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Carbon Tetrachloride | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Benzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Trichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromodichloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Dibromomethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 4-Methyl-2-Pentanone | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| cis-1,3-Dichloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Toluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| trans-1,3-Dichloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2-Trichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Tetrachloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Dibromochloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromoethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1,2-Tetrachloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Ethylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| m,p-Xylenes | ND | | ug/L | 10 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| o-Xylene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Styrene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromoform | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Isopropylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2,2-Tetrachloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Propylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,3,5-Trimethylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 2-Chlorotoluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 4-Chlorotoluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

| 457099-010 Analyte | Result | Qual | Units | RL | Matrix | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trimethylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| sec-Butylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| para-Isopropyl Toluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,4-Dichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| n-Butylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Hexachlorobutadiene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Naphthalene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| cis-1,4-Dichloro-2-butene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| trans-1,4-Dichloro-2-butene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Xylene (total) | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| **Surrogates** | | | | **Limits** | | | | | | |
| Dibromofluoromethane | 98% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane-d4 | 99% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Toluene-d8 | 102% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromofluorobenzene | 102% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

**Sample ID: S9-5** **Lab ID: 457099-011** **Collected: 01/20/22 08:55**
**Matrix: Soil**

| 457099-011 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Arsenic | **2.3** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Barium | **43** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.50 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.50 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Chromium | **12** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cobalt | **3.8** | | mg/Kg | 0.50 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Copper | **6.4** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Lead | **8.6** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Molybdenum | ND | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Nickel | **6.7** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Selenium | ND | | mg/Kg | 3.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Silver | ND | | mg/Kg | 0.50 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Thallium | ND | | mg/Kg | 3.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Vanadium | **25** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Zinc | **27** | | mg/Kg | 5.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.14 | 1 | 282563 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.5 | 0.82 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 91% | | %REC | 60-140 | 0.82 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 116% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-011 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 82 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 82 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 8.2 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |

## Analysis Results for 457099

| 457099-011 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 104% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 90% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 105% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 101% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

**Sample ID: S9-10** **Lab ID: 457099-012** **Collected: 01/20/22 09:05**
**Matrix: Soil**

| 457099-012 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.2 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Arsenic | **2.4** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Barium | **43** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.53 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.53 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Chromium | **12** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cobalt | **3.9** | | mg/Kg | 0.53 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Copper | **9.1** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Lead | **5.0** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Molybdenum | ND | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Nickel | **6.6** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Selenium | ND | | mg/Kg | 3.2 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Silver | ND | | mg/Kg | 0.53 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Thallium | ND | | mg/Kg | 3.2 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Vanadium | **26** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Zinc | **22** | | mg/Kg | 5.3 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 282563 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.4 | 0.81 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 90% | | %REC | 60-140 | 0.81 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 114% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-012 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 85 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 85 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 8.5 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

| 457099-012 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 110% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 98% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 100% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 99% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

**Sample ID: S9-15** **Lab ID: 457099-013** **Collected: 01/20/22 09:15**
**Matrix: Soil**

| 457099-013 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Arsenic | **1.9** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Barium | **37** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.51 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.51 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Chromium | **11** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cobalt | **3.1** | | mg/Kg | 0.51 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Copper | **6.2** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Lead | **4.6** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Molybdenum | ND | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Nickel | **5.5** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Selenium | ND | | mg/Kg | 3.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Silver | ND | | mg/Kg | 0.51 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Thallium | ND | | mg/Kg | 3.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Vanadium | **23** | | mg/Kg | 1.0 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Zinc | **19** | | mg/Kg | 5.1 | 1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 282563 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.5 | 0.84 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 92% | | %REC | 60-140 | 0.84 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 108% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-013 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 83 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 83 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 8.3 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

| 457099-013 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.2 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 106% | | %REC | 70-145 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 95% | | %REC | 70-145 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 100% | | %REC | 70-145 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 100% | | %REC | 70-145 | 0.83 | 282343 | 01/23/22 | 01/23/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

| | | |
|---|---|---|
| **Sample ID:** S9-20 | **Lab ID:** 457099-014<br>**Matrix:** Soil | **Collected:** 01/20/22 09:25 |

| 457099-014 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.7 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Arsenic | **1.6** | | mg/Kg | 0.91 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Barium | **130** | | mg/Kg | 0.91 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.45 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.45 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Chromium | **30** | | mg/Kg | 0.91 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cobalt | **6.1** | | mg/Kg | 0.45 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Copper | **14** | | mg/Kg | 0.91 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Lead | **11** | | mg/Kg | 0.91 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Molybdenum | ND | | mg/Kg | 0.91 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Nickel | **9.8** | | mg/Kg | 0.91 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Selenium | ND | | mg/Kg | 2.7 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Silver | ND | | mg/Kg | 0.45 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Thallium | ND | | mg/Kg | 2.7 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Vanadium | **55** | | mg/Kg | 0.91 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Zinc | **53** | | mg/Kg | 4.5 | 0.91 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 282563 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.4 | 0.79 | 282269 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 89% | | %REC | 60-140 | 0.79 | 282269 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282276 | 01/21/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282276 | 01/21/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 101% | | %REC | 70-130 | 0.99 | 282276 | 01/21/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-014 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 82 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 82 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 8.2 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-014 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.1 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 110% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 96% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 101% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 99% | | %REC | 70-145 | 0.82 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

**Sample ID: S9-25** **Lab ID: 457099-015** **Collected: 01/20/22 09:35**
**Matrix: Soil**

| 457099-015 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.8 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Arsenic | **1.3** | | mg/Kg | 0.93 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Barium | **97** | | mg/Kg | 0.93 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.47 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.47 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Chromium | **19** | | mg/Kg | 0.93 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cobalt | **6.2** | | mg/Kg | 0.47 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Copper | **13** | | mg/Kg | 0.93 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Lead | **8.0** | | mg/Kg | 0.93 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Molybdenum | ND | | mg/Kg | 0.93 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Nickel | **7.4** | | mg/Kg | 0.93 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Selenium | ND | | mg/Kg | 2.8 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Silver | ND | | mg/Kg | 0.47 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Thallium | ND | | mg/Kg | 2.8 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Vanadium | **41** | | mg/Kg | 0.93 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Zinc | **36** | | mg/Kg | 4.7 | 0.93 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.1 | 282563 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.6 | 0.86 | 282269 | 01/22/22 | 01/22/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 88% | | %REC | 60-140 | 0.86 | 282269 | 01/22/22 | 01/22/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282276 | 01/21/22 | 01/26/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282276 | 01/21/22 | 01/26/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 107% | | %REC | 70-130 | 0.99 | 282276 | 01/21/22 | 01/26/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-015 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 89 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 89 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 8.9 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-015 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.5 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 106% | | %REC | 70-145 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 94% | | %REC | 70-145 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 102% | | %REC | 70-145 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 102% | | %REC | 70-145 | 0.89 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

**Sample ID: S9-30** **Lab ID: 457099-016** **Collected: 01/20/22 10:00**
**Matrix: Soil**

| 457099-016 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 3.2 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Arsenic | ND | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Barium | **140** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.53 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.53 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Chromium | **25** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cobalt | **7.9** | | mg/Kg | 0.53 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Copper | **11** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Lead | **10** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Molybdenum | ND | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Nickel | **10** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Selenium | ND | | mg/Kg | 3.2 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Silver | ND | | mg/Kg | 0.53 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Thallium | ND | | mg/Kg | 3.2 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Vanadium | **48** | | mg/Kg | 1.1 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Zinc | **59** | | mg/Kg | 5.3 | 1.1 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.1 | 282563 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.4 | 0.79 | 282269 | 01/22/22 | 01/22/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 90% | | %REC | 60-140 | 0.79 | 282269 | 01/22/22 | 01/22/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/26/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/26/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 112% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/26/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-016 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 81 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 81 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 8.1 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

| 457099-016 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.0 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 103% | | %REC | 70-145 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 91% | | %REC | 70-145 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 104% | | %REC | 70-145 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 102% | | %REC | 70-145 | 0.81 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

**Sample ID: S9-35** **Lab ID: 457099-017** **Collected: 01/20/22 10:15**
**Matrix: Soil**

| 457099-017 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Arsenic | **1.3** | | mg/Kg | 0.98 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Barium | **89** | | mg/Kg | 0.98 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.49 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.49 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Chromium | **28** | | mg/Kg | 0.98 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cobalt | **11** | | mg/Kg | 0.49 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Copper | **4.6** | | mg/Kg | 0.98 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Lead | **12** | | mg/Kg | 0.98 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Molybdenum | ND | | mg/Kg | 0.98 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Nickel | **11** | | mg/Kg | 0.98 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Selenium | ND | | mg/Kg | 2.9 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Silver | ND | | mg/Kg | 0.49 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Thallium | ND | | mg/Kg | 2.9 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Vanadium | **51** | | mg/Kg | 0.98 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Zinc | **110** | | mg/Kg | 4.9 | 0.98 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 282563 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.4 | 0.8 | 282269 | 01/22/22 | 01/22/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 81% | | %REC | 60-140 | 0.8 | 282269 | 01/22/22 | 01/22/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 9.9 | 0.99 | 282276 | 01/21/22 | 01/26/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 0.99 | 282276 | 01/21/22 | 01/26/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 108% | | %REC | 70-130 | 0.99 | 282276 | 01/21/22 | 01/26/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-017 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 79 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 79 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 7.9 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

| 457099-017 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 105% | | %REC | 70-145 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 93% | | %REC | 70-145 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 103% | | %REC | 70-145 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 105% | | %REC | 70-145 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

**Sample ID: S9-40** **Lab ID: 457099-018** **Collected: 01/20/22 10:25**
**Matrix: Soil**

| 457099-018 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Arsenic | ND | | mg/Kg | 0.96 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Barium | **180** | | mg/Kg | 0.96 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.48 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.48 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Chromium | **22** | | mg/Kg | 0.96 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cobalt | **7.7** | | mg/Kg | 0.48 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Copper | **16** | | mg/Kg | 0.96 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Lead | **11** | | mg/Kg | 0.96 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Molybdenum | ND | | mg/Kg | 0.96 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Nickel | **9.1** | | mg/Kg | 0.96 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Selenium | ND | | mg/Kg | 2.9 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Silver | ND | | mg/Kg | 0.48 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Thallium | ND | | mg/Kg | 2.9 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Vanadium | **49** | | mg/Kg | 0.96 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Zinc | **51** | | mg/Kg | 4.8 | 0.96 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.16 | 1.2 | 282563 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.5 | 0.83 | 282269 | 01/22/22 | 01/22/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 89% | | %REC | 60-140 | 0.83 | 282269 | 01/22/22 | 01/22/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282276 | 01/21/22 | 01/26/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282276 | 01/21/22 | 01/26/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 112% | | %REC | 70-130 | 1 | 282276 | 01/21/22 | 01/26/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-018 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 85 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 85 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 8.5 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

| 457099-018 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.2 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 106% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 90% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 103% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 100% | | %REC | 70-145 | 0.85 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

**Sample ID:** S9-45 **Lab ID:** 457099-019 **Collected:** 01/20/22 10:40
**Matrix:** Soil

| 457099-019 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 6010B<br>Prep Method: EPA 3050B | | | | | | | | | |
| Antimony | ND | | mg/Kg | 2.9 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Arsenic | ND | | mg/Kg | 0.95 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Barium | **130** | | mg/Kg | 0.95 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Beryllium | ND | | mg/Kg | 0.48 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cadmium | ND | | mg/Kg | 0.48 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Chromium | **25** | | mg/Kg | 0.95 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Cobalt | **6.4** | | mg/Kg | 0.48 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Copper | **10** | | mg/Kg | 0.95 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Lead | **9.2** | | mg/Kg | 0.95 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Molybdenum | ND | | mg/Kg | 0.95 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Nickel | **7.7** | | mg/Kg | 0.95 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Selenium | ND | | mg/Kg | 2.9 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Silver | ND | | mg/Kg | 0.48 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Thallium | ND | | mg/Kg | 2.9 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Vanadium | **55** | | mg/Kg | 0.95 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Zinc | **44** | | mg/Kg | 4.8 | 0.95 | 282483 | 01/25/22 | 01/26/22 | KLN |
| Method: EPA 7471A<br>Prep Method: METHOD | | | | | | | | | |
| Mercury | ND | | mg/Kg | 0.15 | 1.1 | 282563 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5035 | | | | | | | | | |
| TPH Gasoline | ND | | mg/Kg | 2.8 | 0.93 | 282269 | 01/22/22 | 01/22/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | |
| Bromofluorobenzene (FID) | 90% | | %REC | 60-140 | 0.93 | 282269 | 01/22/22 | 01/22/22 | EMW |
| Method: EPA 8015M<br>Prep Method: EPA 3580 | | | | | | | | | |
| DRO C10-C28 | ND | | mg/Kg | 10 | 1 | 282363 | 01/24/22 | 01/25/22 | MES |
| ORO C28-C44 | ND | | mg/Kg | 20 | 1 | 282363 | 01/24/22 | 01/25/22 | MES |
| **Surrogates** | | | | **Limits** | | | | | |
| n-Triacontane | 105% | | %REC | 70-130 | 1 | 282363 | 01/24/22 | 01/25/22 | MES |
| Method: EPA 8260B<br>Prep Method: EPA 5035 | | | | | | | | | |
| 3-Chloropropene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 12 | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloromethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Vinyl Chloride | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromomethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-019 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Acetone | ND | | ug/Kg | 79 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Freon 113 | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Methylene Chloride | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| MTBE | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Butanone | ND | | ug/Kg | 79 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chloroform | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromochloromethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1-Dichloropropene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Carbon Tetrachloride | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Benzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Trichloroethene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloropropane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromodichloromethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromomethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichloropropane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Tetrachloroethene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Dibromochloromethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromoethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Chlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Ethylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| m,p-Xylenes | ND | | ug/Kg | 7.9 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| o-Xylene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Styrene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromoform | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Isopropylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Propylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 2-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 4-Chlorotoluene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

| 457099-019 Analyte | Result | Qual | Units | RL | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| sec-Butylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| para-Isopropyl Toluene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| n-Butylbenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Hexachlorobutadiene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Naphthalene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Xylene (total) | ND | | ug/Kg | 4.0 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| **Surrogates** | | | | **Limits** | | | | | |
| Dibromofluoromethane | 107% | | %REC | 70-145 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| 1,2-Dichloroethane-d4 | 97% | | %REC | 70-145 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Toluene-d8 | 98% | | %REC | 70-145 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |
| Bromofluorobenzene | 100% | | %REC | 70-145 | 0.79 | 282343 | 01/23/22 | 01/23/22 | LXR |

# Analysis Results for 457099

**Sample ID: S9-GW** **Lab ID: 457099-020** **Collected: 01/20/22 11:50**

| 457099-020 Analyte | Result | Qual | Units | RL | Matrix | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 314.0<br>Prep Method: METHOD | | | | | | | | | | |
| Perchlorate | ND | | ug/L | 8.0 | Water | 2 | 282294 | 01/21/22 | 01/22/22 | KLN |
| Method: EPA 6010B<br>Prep Method: METHOD | | | | | | | | | | |
| Antimony | ND | | mg/L | 0.030 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Arsenic | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Barium | **0.23** | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Beryllium | ND | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Cadmium | ND | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Chromium | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Cobalt | **0.0055** | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Copper | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Lead | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Molybdenum | **0.030** | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Nickel | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Selenium | ND | | mg/L | 0.030 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Silver | ND | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Thallium | ND | | mg/L | 0.050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Vanadium | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Zinc | ND | | mg/L | 0.050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Method: EPA 7470A<br>Prep Method: METHOD | | | | | | | | | | |
| Mercury | ND | | ug/L | 0.40 | Filtrate | 1 | 282594 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5030B | | | | | | | | | | |
| TPH Gasoline | ND | | ug/L | 50 | Water | 1 | 282266 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | | |
| Bromofluorobenzene (FID) | 88% | | %REC | 60-140 | Water | 1 | 282266 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015B<br>Prep Method: EPA 3510C | | | | | | | | | | |
| TPH (C13-C28) | **0.28** | | mg/L | 0.094 | Water | 0.94 | 282150 | 01/21/22 | 01/26/22 | TJW |
| TPH (C29-C44) | ND | | mg/L | 0.28 | Water | 0.94 | 282150 | 01/21/22 | 01/26/22 | TJW |
| **Surrogates** | | | | **Limits** | | | | | | |
| n-Triacontane | 94% | | %REC | 35-130 | Water | 0.94 | 282150 | 01/21/22 | 01/26/22 | TJW |
| Method: EPA 8260B<br>Prep Method: EPA 5030B | | | | | | | | | | |
| 3-Chloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Freon 12 | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Vinyl Chloride | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromomethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

| 457099-020 Analyte | Result | Qual | Units | RL | Matrix | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Acetone | ND | | ug/L | 100 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Freon 113 | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Methylene Chloride | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| MTBE | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| trans-1,2-Dichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 2-Butanone | ND | | ug/L | 100 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| cis-1,2-Dichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 2,2-Dichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chloroform | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromochloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1-Trichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Carbon Tetrachloride | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Benzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Trichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromodichloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Dibromomethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 4-Methyl-2-Pentanone | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| cis-1,3-Dichloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Toluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| trans-1,3-Dichloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2-Trichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Tetrachloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Dibromochloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromoethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1,2-Tetrachloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Ethylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| m,p-Xylenes | ND | | ug/L | 10 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| o-Xylene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Styrene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromoform | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Isopropylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2,2-Tetrachloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Propylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,3,5-Trimethylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 2-Chlorotoluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 4-Chlorotoluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

| 457099-020 Analyte | Result | Qual | Units | RL | Matrix | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trimethylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| sec-Butylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| para-Isopropyl Toluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,4-Dichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| n-Butylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Hexachlorobutadiene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Naphthalene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| cis-1,4-Dichloro-2-butene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| trans-1,4-Dichloro-2-butene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Xylene (total) | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| **Surrogates** | | | | **Limits** | | | | | | |
| Dibromofluoromethane | 101% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane-d4 | 105% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Toluene-d8 | 99% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromofluorobenzene | 101% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |

Results for any subcontracted analyses are not included in this section.

# Analysis Results for 457099

**Sample ID: S10-GW** **Lab ID: 457099-021** **Collected: 01/19/22 12:00**

| 457099-021 Analyte | Result | Qual | Units | RL | Matrix | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|---|
| Method: EPA 314.0<br>Prep Method: METHOD | | | | | | | | | | |
| Perchlorate | ND | | ug/L | 8.0 | Water | 2 | 282294 | 01/21/22 | 01/22/22 | KLN |
| Method: EPA 6010B<br>Prep Method: METHOD | | | | | | | | | | |
| Antimony | ND | | mg/L | 0.030 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Arsenic | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Barium | **0.29** | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Beryllium | ND | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Cadmium | ND | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Chromium | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Cobalt | **0.0051** | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Copper | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Lead | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Molybdenum | **0.016** | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Nickel | **0.022** | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Selenium | ND | | mg/L | 0.030 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Silver | ND | | mg/L | 0.0050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Thallium | ND | | mg/L | 0.050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Vanadium | ND | | mg/L | 0.010 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Zinc | ND | | mg/L | 0.050 | Filtrate | 1 | 282311 | 01/21/22 | 01/21/22 | KLN |
| Method: EPA 7470A<br>Prep Method: METHOD | | | | | | | | | | |
| Mercury | ND | | ug/L | 0.40 | Filtrate | 1 | 282594 | 01/26/22 | 01/27/22 | KLN |
| Method: EPA 8015B<br>Prep Method: EPA 5030B | | | | | | | | | | |
| TPH Gasoline | ND | | ug/L | 50 | Water | 1 | 282266 | 01/21/22 | 01/21/22 | EMW |
| **Surrogates** | | | | **Limits** | | | | | | |
| Bromofluorobenzene (FID) | 88% | | %REC | 60-140 | Water | 1 | 282266 | 01/21/22 | 01/21/22 | EMW |
| Method: EPA 8015B<br>Prep Method: EPA 3510C | | | | | | | | | | |
| TPH (C13-C28) | **0.13** | | mg/L | 0.094 | Water | 0.94 | 282150 | 01/21/22 | 01/27/22 | TJW |
| TPH (C29-C44) | ND | | mg/L | 0.28 | Water | 0.94 | 282150 | 01/21/22 | 01/27/22 | TJW |
| **Surrogates** | | | | **Limits** | | | | | | |
| n-Triacontane | 95% | | %REC | 35-130 | Water | 0.94 | 282150 | 01/21/22 | 01/27/22 | TJW |
| Method: EPA 8260B<br>Prep Method: EPA 5030B | | | | | | | | | | |
| 3-Chloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Freon 12 | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Vinyl Chloride | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromomethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

| 457099-021 Analyte | Result | Qual | Units | RL | Matrix | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|---|
| Trichlorofluoromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Acetone | ND | | ug/L | 100 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Freon 113 | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Methylene Chloride | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| MTBE | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| trans-1,2-Dichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 2-Butanone | ND | | ug/L | 100 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| cis-1,2-Dichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 2,2-Dichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chloroform | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromochloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1-Trichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1-Dichloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Carbon Tetrachloride | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Benzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Trichloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromodichloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Dibromomethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 4-Methyl-2-Pentanone | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| cis-1,3-Dichloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Toluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| trans-1,3-Dichloropropene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2-Trichloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Tetrachloroethene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Dibromochloromethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromoethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Chlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,1,2-Tetrachloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Ethylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| m,p-Xylenes | ND | | ug/L | 10 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| o-Xylene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Styrene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromoform | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Isopropylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,1,2,2-Tetrachloroethane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Propylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,3,5-Trimethylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 2-Chlorotoluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 4-Chlorotoluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |

# Analysis Results for 457099

| 457099-021 Analyte | Result | Qual | Units | RL | Matrix | DF | Batch | Prepared | Analyzed | Chemist |
|---|---|---|---|---|---|---|---|---|---|---|
| tert-Butylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trimethylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| sec-Butylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| para-Isopropyl Toluene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,3-Dichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,4-Dichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| n-Butylbenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,4-Trichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Hexachlorobutadiene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Naphthalene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2,3-Trichlorobenzene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| cis-1,4-Dichloro-2-butene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| trans-1,4-Dichloro-2-butene | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Xylene (total) | ND | | ug/L | 5.0 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| **Surrogates** | | | | **Limits** | | | | | | |
| Dibromofluoromethane | 99% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| 1,2-Dichloroethane-d4 | 100% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Toluene-d8 | 101% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |
| Bromofluorobenzene | 101% | | %REC | 70-140 | Water | 1 | 282252 | 01/21/22 | 01/21/22 | RAO |

ND Not Detected

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967440** | **Batch:** | **282150** |
| **Matrix:** | **Water** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 3510C** |

| QC967440 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| TPH (C13-C28) | ND | | mg/L | 0.10 | 01/19/22 | 01/20/22 |
| TPH (C29-C44) | ND | | mg/L | 0.30 | 01/19/22 | 01/20/22 |
| **Surrogates** | | | | **Limits** | | |
| n-Triacontane | 91% | | %REC | 35-130 | 01/19/22 | 01/20/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967441** | **Batch:** | **282150** |
| **Matrix:** | **Water** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 3510C** |

| QC967441 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Diesel C10-C28 | 0.8938 | 1.000 | mg/L | 89% | | 42-120 |
| **Surrogates** | | | | | | |
| n-Triacontane | 0.01835 | 0.02000 | mg/L | 92% | | 35-130 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample Duplicate** | **Lab ID:** | **QC967442** | **Batch:** | **282150** |
| **Matrix:** | **Water** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 3510C** |

| QC967442 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| Diesel C10-C28 | 0.9369 | 1.000 | mg/L | 94% | | 42-120 | 5 | 36 |
| **Surrogates** | | | | | | | | |
| n-Triacontane | 0.01887 | 0.02000 | mg/L | 94% | | 35-130 | | |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967738** | **Batch:** | **282252** |
| **Matrix:** | **Water** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5030B** |

| QC967738 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| 3-Chloropropene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Freon 12 | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Chloromethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Vinyl Chloride | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Bromomethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Chloroethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Trichlorofluoromethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Acetone | ND | | ug/L | 100 | 01/21/22 | 01/21/22 |
| Freon 113 | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,1-Dichloroethene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Methylene Chloride | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| MTBE | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| trans-1,2-Dichloroethene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,1-Dichloroethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 2-Butanone | ND | | ug/L | 100 | 01/21/22 | 01/21/22 |
| cis-1,2-Dichloroethene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 2,2-Dichloropropane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Chloroform | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Bromochloromethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,1,1-Trichloroethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,1-Dichloropropene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Carbon Tetrachloride | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,2-Dichloroethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Benzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Trichloroethene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,2-Dichloropropane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Bromodichloromethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Dibromomethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 4-Methyl-2-Pentanone | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| cis-1,3-Dichloropropene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Toluene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| trans-1,3-Dichloropropene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,1,2-Trichloroethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,3-Dichloropropane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Tetrachloroethene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Dibromochloromethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,2-Dibromoethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Chlorobenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Ethylbenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| m,p-Xylenes | ND | | ug/L | 10 | 01/21/22 | 01/21/22 |
| o-Xylene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |

# Batch QC

| QC967738 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Styrene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Bromoform | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Isopropylbenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,2,3-Trichloropropane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Propylbenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Bromobenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,3,5-Trimethylbenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 2-Chlorotoluene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 4-Chlorotoluene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| tert-Butylbenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,2,4-Trimethylbenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| sec-Butylbenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| para-Isopropyl Toluene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,3-Dichlorobenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,4-Dichlorobenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| n-Butylbenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,2-Dichlorobenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,2,4-Trichlorobenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Hexachlorobutadiene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Naphthalene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| 1,2,3-Trichlorobenzene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| cis-1,4-Dichloro-2-butene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| trans-1,4-Dichloro-2-butene | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| Xylene (total) | ND | | ug/L | 5.0 | 01/21/22 | 01/21/22 |
| **Surrogates** | | | | **Limits** | | |
| Dibromofluoromethane | 100% | | %REC | 70-140 | 01/21/22 | 01/21/22 |
| 1,2-Dichloroethane-d4 | 103% | | %REC | 70-140 | 01/21/22 | 01/21/22 |
| Toluene-d8 | 100% | | %REC | 70-140 | 01/21/22 | 01/21/22 |
| Bromofluorobenzene | 101% | | %REC | 70-140 | 01/21/22 | 01/21/22 |

# Batch QC

**Type:** Lab Control Sample **Lab ID:** QC967739 **Batch:** 282252
**Matrix:** Water **Method:** EPA 8260B **Prep Method:** EPA 5030B

| QC967739 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 54.35 | 50.00 | ug/L | 109% | | 70-135 |
| MTBE | 48.99 | 50.00 | ug/L | 98% | | 70-130 |
| Benzene | 54.10 | 50.00 | ug/L | 108% | | 70-130 |
| Trichloroethene | 55.80 | 50.00 | ug/L | 112% | | 70-130 |
| Toluene | 54.60 | 50.00 | ug/L | 109% | | 70-130 |
| Chlorobenzene | 54.36 | 50.00 | ug/L | 109% | | 70-130 |
| **Surrogates** | | | | | | |
| Dibromofluoromethane | 50.21 | 50.00 | ug/L | 100% | | 70-140 |
| 1,2-Dichloroethane-d4 | 48.54 | 50.00 | ug/L | 97% | | 70-140 |
| Toluene-d8 | 50.44 | 50.00 | ug/L | 101% | | 70-140 |
| Bromofluorobenzene | 49.80 | 50.00 | ug/L | 100% | | 70-140 |

**Type:** Lab Control Sample Duplicate **Lab ID:** QC967740 **Batch:** 282252
**Matrix:** Water **Method:** EPA 8260B **Prep Method:** EPA 5030B

| QC967740 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50.70 | 50.00 | ug/L | 101% | | 70-135 | 7 | 30 |
| MTBE | 48.87 | 50.00 | ug/L | 98% | | 70-130 | 0 | 30 |
| Benzene | 51.33 | 50.00 | ug/L | 103% | | 70-130 | 5 | 30 |
| Trichloroethene | 51.25 | 50.00 | ug/L | 102% | | 70-130 | 9 | 30 |
| Toluene | 50.12 | 50.00 | ug/L | 100% | | 70-130 | 9 | 30 |
| Chlorobenzene | 50.63 | 50.00 | ug/L | 101% | | 70-130 | 7 | 30 |
| **Surrogates** | | | | | | | | |
| Dibromofluoromethane | 50.82 | 50.00 | ug/L | 102% | | 70-140 | | |
| 1,2-Dichloroethane-d4 | 49.50 | 50.00 | ug/L | 99% | | 70-140 | | |
| Toluene-d8 | 49.56 | 50.00 | ug/L | 99% | | 70-140 | | |
| Bromofluorobenzene | 48.76 | 50.00 | ug/L | 98% | | 70-140 | | |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967741** | **Batch:** | **282253** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC967741 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| 3-Chloropropene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Freon 12 | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Chloromethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Vinyl Chloride | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Bromomethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Chloroethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Trichlorofluoromethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Acetone | ND | | ug/Kg | 100 | 01/21/22 | 01/21/22 |
| Freon 113 | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,1-Dichloroethene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Methylene Chloride | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| MTBE | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,1-Dichloroethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 2-Butanone | ND | | ug/Kg | 100 | 01/21/22 | 01/21/22 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 2,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Chloroform | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Bromochloromethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,1-Dichloropropene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Carbon Tetrachloride | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,2-Dichloroethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Benzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Trichloroethene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Bromodichloromethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Dibromomethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Toluene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,3-Dichloropropane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Tetrachloroethene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Dibromochloromethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,2-Dibromoethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Chlorobenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Ethylbenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |

# Batch QC

| QC967741 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| m,p-Xylenes | ND | | ug/Kg | 10 | 01/21/22 | 01/21/22 |
| o-Xylene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Styrene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Bromoform | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Isopropylbenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Propylbenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Bromobenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 2-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 4-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| tert-Butylbenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| sec-Butylbenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| para-Isopropyl Toluene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| n-Butylbenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Hexachlorobutadiene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Naphthalene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| Xylene (total) | ND | | ug/Kg | 5.0 | 01/21/22 | 01/21/22 |
| **Surrogates** | | | | **Limits** | | |
| Dibromofluoromethane | 85% | | %REC | 70-130 | 01/21/22 | 01/21/22 |
| 1,2-Dichloroethane-d4 | 84% | | %REC | 70-145 | 01/21/22 | 01/21/22 |
| Toluene-d8 | 102% | | %REC | 70-145 | 01/21/22 | 01/21/22 |
| Bromofluorobenzene | 103% | | %REC | 70-145 | 01/21/22 | 01/21/22 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967742** | **Batch:** | **282253** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC967742 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 45.24 | 50.00 | ug/Kg | 90% | | 70-131 |
| MTBE | 39.18 | 50.00 | ug/Kg | 78% | | 69-130 |
| Benzene | 50.48 | 50.00 | ug/Kg | 101% | | 70-130 |
| Trichloroethene | 45.73 | 50.00 | ug/Kg | 91% | | 70-130 |
| Toluene | 48.40 | 50.00 | ug/Kg | 97% | | 70-130 |
| Chlorobenzene | 47.73 | 50.00 | ug/Kg | 95% | | 70-130 |
| **Surrogates** | | | | | | |
| Dibromofluoromethane | 45.54 | 50.00 | ug/Kg | 91% | | 70-130 |
| 1,2-Dichloroethane-d4 | 52.92 | 50.00 | ug/Kg | 106% | | 70-145 |
| Toluene-d8 | 51.68 | 50.00 | ug/Kg | 103% | | 70-145 |
| Bromofluorobenzene | 49.37 | 50.00 | ug/Kg | 99% | | 70-145 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample Duplicate** | **Lab ID:** | **QC967743** | **Batch:** | **282253** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC967743 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 42.39 | 50.00 | ug/Kg | 85% | | 70-131 | 7 | 33 |
| MTBE | 39.00 | 50.00 | ug/Kg | 78% | | 69-130 | 0 | 30 |
| Benzene | 50.12 | 50.00 | ug/Kg | 100% | | 70-130 | 1 | 30 |
| Trichloroethene | 46.73 | 50.00 | ug/Kg | 93% | | 70-130 | 2 | 30 |
| Toluene | 49.64 | 50.00 | ug/Kg | 99% | | 70-130 | 3 | 30 |
| Chlorobenzene | 48.76 | 50.00 | ug/Kg | 98% | | 70-130 | 2 | 30 |
| **Surrogates** | | | | | | | | |
| Dibromofluoromethane | 42.96 | 50.00 | ug/Kg | 86% | | 70-130 | | |
| 1,2-Dichloroethane-d4 | 49.10 | 50.00 | ug/Kg | 98% | | 70-145 | | |
| Toluene-d8 | 51.88 | 50.00 | ug/Kg | 104% | | 70-145 | | |
| Bromofluorobenzene | 49.63 | 50.00 | ug/Kg | 99% | | 70-145 | | |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967776** | **Batch:** | **282266** |
| **Matrix:** | **Water** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5030B** |

| QC967776 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| TPH Gasoline | 533.3 | 500.0 | ug/L | 107% | | 70-130 |
| **Surrogates** | | | | | | |
| Bromofluorobenzene (FID) | 204.8 | 200.0 | ug/L | 102% | | 60-140 |

# Batch QC

**Type:** Matrix Spike **Lab ID:** QC967777 **Batch:** 282266
**Matrix (Source ID):** Water (457060-001) **Method:** EPA 8015B **Prep Method:** EPA 5030B

| QC967777 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| TPH Gasoline | 518.6 | ND | 500.0 | ug/L | 104% | | 70-130 | 1 |
| **Surrogates** | | | | | | | | |
| Bromofluorobenzene (FID) | 167.2 | | 200.0 | ug/L | 84% | | 60-140 | 1 |

**Type:** Matrix Spike Duplicate **Lab ID:** QC967778 **Batch:** 282266
**Matrix (Source ID):** Water (457060-001) **Method:** EPA 8015B **Prep Method:** EPA 5030B

| QC967778 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH Gasoline | 510.0 | ND | 500.0 | ug/L | 102% | | 70-130 | 2 | 30 | 1 |
| **Surrogates** | | | | | | | | | | |
| Bromofluorobenzene (FID) | 184.7 | | 200.0 | ug/L | 92% | | 60-140 | | | 1 |

**Type:** Blank **Lab ID:** QC967779 **Batch:** 282266
**Matrix:** Water **Method:** EPA 8015B **Prep Method:** EPA 5030B

| QC967779 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| TPH Gasoline | ND | | ug/L | 50 | 01/21/22 | 01/21/22 |
| **Surrogates** | | | | **Limits** | | |
| Bromofluorobenzene (FID) | 80% | | %REC | 60-140 | 01/21/22 | 01/21/22 |

**Type:** Lab Control Sample **Lab ID:** QC967780 **Batch:** 282269
**Matrix:** Soil **Method:** EPA 8015B **Prep Method:** EPA 5035

| QC967780 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| TPH Gasoline | 5.659 | 5.000 | mg/Kg | 113% | | 70-130 |
| **Surrogates** | | | | | | |
| Bromofluorobenzene (FID) | 0.2524 | 0.2000 | mg/Kg | 126% | | 60-140 |

**Type:** Lab Control Sample Duplicate **Lab ID:** QC967781 **Batch:** 282269
**Matrix:** Soil **Method:** EPA 8015B **Prep Method:** EPA 5035

| QC967781 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| TPH Gasoline | 5.676 | 5.000 | mg/Kg | 114% | | 70-130 | 0 | 20 |
| **Surrogates** | | | | | | | | |
| Bromofluorobenzene (FID) | 0.2471 | 0.2000 | mg/Kg | 124% | | 60-140 | | |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967782** | **Batch:** | **282269** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5035** |

| QC967782 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| TPH Gasoline | ND | | mg/Kg | 3.0 | 01/21/22 | 01/21/22 |
| **Surrogates** | | | | **Limits** | | |
| Bromofluorobenzene (FID) | 88% | | %REC | 60-140 | 01/21/22 | 01/21/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967783** | **Batch:** | **282269** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015B** | **Prep Method:** | **EPA 5035** |

| QC967783 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| TPH Gasoline | ND | | mg/Kg | 75 | 01/21/22 | 01/21/22 |
| **Surrogates** | | | | **Limits** | | |
| Bromofluorobenzene (FID) | 91% | | %REC | 60-140 | 01/21/22 | 01/21/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967792** | **Batch:** | **282276** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC967792 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| DRO C10-C28 | ND | | mg/Kg | 10 | 01/21/22 | 01/25/22 |
| ORO C28-C44 | ND | | mg/Kg | 20 | 01/21/22 | 01/25/22 |
| **Surrogates** | | | | **Limits** | | |
| n-Triacontane | 98% | | %REC | 70-130 | 01/21/22 | 01/25/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967793** | **Batch:** | **282276** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC967793 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Diesel C10-C28 | 216.7 | 248.6 | mg/Kg | 87% | | 76-122 |
| **Surrogates** | | | | | | |
| n-Triacontane | 10.48 | 9.945 | mg/Kg | 105% | | 70-130 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC967794** | **Batch:** | **282276** |
| **Matrix (Source ID):** | **Soil (457099-014)** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC967794 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Diesel C10-C28 | 238.5 | 4.042 | 252.4 | mg/Kg | 93% | | 62-126 | 1 |
| **Surrogates** | | | | | | | | |
| n-Triacontane | 10.44 | | 10.10 | mg/Kg | 103% | | 70-130 | 1 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC967795** | **Batch:** | **282276** |
| **Matrix (Source ID):** | **Soil (457099-014)** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC967795 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel C10-C28 | 236.8 | 4.042 | 248.0 | mg/Kg | 94% | | 62-126 | 1 | 35 | 0.99 |
| **Surrogates** | | | | | | | | | | |
| n-Triacontane | 10.09 | | 9.921 | mg/Kg | 102% | | 70-130 | | | 0.99 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967826** | **Batch:** | **282294** |
| **Matrix:** | **Drinking Water** | **Method:** | **EPA 314.0** | **Prep Method:** | **METHOD** |

| QC967826 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Perchlorate | ND | | ug/L | 4.0 | 01/21/22 | 01/22/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967827** | **Batch:** | **282294** |
| **Matrix:** | **Drinking Water** | **Method:** | **EPA 314.0** | **Prep Method:** | **METHOD** |

| QC967827 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Perchlorate | 49.77 | 50.00 | ug/L | 100% | | 85-115 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC967828** | **Batch:** | **282294** |
| **Matrix (Source ID):** | **Drinking Water (457111-001)** | **Method:** | **EPA 314.0** | **Prep Method:** | **METHOD** |

| QC967828 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Perchlorate | 48.00 | 3.222 | 50.00 | ug/L | 90% | | 80-120 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC967829** | **Batch:** | **282294** |
| **Matrix (Source ID):** | **Drinking Water (457111-001)** | **Method:** | **EPA 314.0** | **Prep Method:** | **METHOD** |

| QC967829 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Perchlorate | 45.83 | 3.222 | 50.00 | ug/L | 85% | | 80-120 | 5 | 15 | 1 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967898** | **Batch:** | **282311** |
| **Matrix:** | **Filtrate** | **Method:** | **EPA 6010B** | **Prep Method:** | **METHOD** |

| QC967898 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Antimony | ND | | mg/L | 0.030 | 01/21/22 | 01/21/22 |
| Arsenic | ND | | mg/L | 0.010 | 01/21/22 | 01/21/22 |
| Barium | ND | | mg/L | 0.010 | 01/21/22 | 01/21/22 |
| Beryllium | ND | | mg/L | 0.0050 | 01/21/22 | 01/21/22 |
| Cadmium | ND | | mg/L | 0.0050 | 01/21/22 | 01/21/22 |
| Chromium | ND | | mg/L | 0.010 | 01/21/22 | 01/21/22 |
| Cobalt | ND | | mg/L | 0.0050 | 01/21/22 | 01/21/22 |
| Copper | ND | | mg/L | 0.010 | 01/21/22 | 01/21/22 |
| Lead | ND | | mg/L | 0.010 | 01/21/22 | 01/21/22 |
| Molybdenum | ND | | mg/L | 0.010 | 01/21/22 | 01/21/22 |
| Nickel | ND | | mg/L | 0.010 | 01/21/22 | 01/21/22 |
| Selenium | ND | | mg/L | 0.030 | 01/21/22 | 01/21/22 |
| Silver | ND | | mg/L | 0.0050 | 01/21/22 | 01/21/22 |
| Thallium | ND | | mg/L | 0.050 | 01/21/22 | 01/21/22 |
| Vanadium | ND | | mg/L | 0.010 | 01/21/22 | 01/21/22 |
| Zinc | ND | | mg/L | 0.050 | 01/21/22 | 01/21/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967899** | **Batch:** | **282311** |
| **Matrix:** | **Filtrate** | **Method:** | **EPA 6010B** | **Prep Method:** | **METHOD** |

| QC967899 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Antimony | 1.024 | 1.000 | mg/L | 102% | | 80-120 |
| Arsenic | 1.044 | 1.000 | mg/L | 104% | | 80-120 |
| Barium | 0.9532 | 1.000 | mg/L | 95% | | 80-120 |
| Beryllium | 0.9646 | 1.000 | mg/L | 96% | | 80-120 |
| Cadmium | 0.9845 | 1.000 | mg/L | 98% | | 80-120 |
| Chromium | 0.9674 | 1.000 | mg/L | 97% | | 80-120 |
| Cobalt | 0.9493 | 1.000 | mg/L | 95% | | 80-120 |
| Copper | 0.9498 | 1.000 | mg/L | 95% | | 80-120 |
| Lead | 1.004 | 1.000 | mg/L | 100% | | 80-120 |
| Molybdenum | 1.036 | 1.000 | mg/L | 104% | | 80-120 |
| Nickel | 0.9650 | 1.000 | mg/L | 97% | | 80-120 |
| Selenium | 0.9741 | 1.000 | mg/L | 97% | | 80-120 |
| Silver | 0.5467 | 0.5000 | mg/L | 109% | | 80-120 |
| Thallium | 0.9658 | 1.000 | mg/L | 97% | | 80-120 |
| Vanadium | 1.000 | 1.000 | mg/L | 100% | | 80-120 |
| Zinc | 1.035 | 1.000 | mg/L | 103% | | 80-120 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC967900** | **Batch:** | **282311** |
| **Matrix (Source ID):** | **Filtrate (456494-008)** | **Method:** | **EPA 6010B** | **Prep Method:** | **METHOD** |

| QC967900 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Antimony | 0.5241 | ND | 0.5000 | mg/L | 105% | | 75-125 | 4 |
| Arsenic | 0.5960 | ND | 0.5000 | mg/L | 119% | | 75-125 | 4 |
| Barium | 0.5641 | 0.02559 | 0.5000 | mg/L | 108% | | 75-125 | 4 |
| Beryllium | 0.5499 | 0.007486 | 0.5000 | mg/L | 108% | | 75-125 | 4 |
| Cadmium | 0.5891 | 0.02864 | 0.5000 | mg/L | 112% | | 75-125 | 4 |
| Chromium | 0.5260 | ND | 0.5000 | mg/L | 105% | | 75-125 | 4 |
| Cobalt | 3.295 | 2.863 | 0.5000 | mg/L | 86% | NM | 75-125 | 4 |
| Copper | 0.5205 | ND | 0.5000 | mg/L | 104% | | 75-125 | 4 |
| Lead | 0.5759 | ND | 0.5000 | mg/L | 115% | | 75-125 | 4 |
| Molybdenum | 0.4954 | 0.003490 | 0.5000 | mg/L | 98% | | 75-125 | 4 |
| Nickel | 2.395 | 1.929 | 0.5000 | mg/L | 93% | | 75-125 | 4 |
| Selenium | 0.5705 | 0.01054 | 0.5000 | mg/L | 112% | | 75-125 | 4 |
| Silver | 0.2894 | ND | 0.2500 | mg/L | 116% | | 75-125 | 4 |
| Thallium | 0.5526 | 0.01914 | 0.5000 | mg/L | 107% | | 75-125 | 4 |
| Vanadium | 0.5525 | ND | 0.5000 | mg/L | 111% | | 75-125 | 4 |
| Zinc | 1.830 | 1.309 | 0.5000 | mg/L | 104% | | 75-125 | 4 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC967901** | **Batch:** | **282311** |
| **Matrix (Source ID):** | **Filtrate (456494-008)** | **Method:** | **EPA 6010B** | **Prep Method:** | **METHOD** |

| QC967901 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 0.5052 | ND | 0.5000 | mg/L | 101% | | 75-125 | 4 | 20 | 4 |
| Arsenic | 0.5727 | ND | 0.5000 | mg/L | 115% | | 75-125 | 4 | 20 | 4 |
| Barium | 0.5520 | 0.02559 | 0.5000 | mg/L | 105% | | 75-125 | 2 | 20 | 4 |
| Beryllium | 0.5396 | 0.007486 | 0.5000 | mg/L | 106% | | 75-125 | 2 | 20 | 4 |
| Cadmium | 0.5719 | 0.02864 | 0.5000 | mg/L | 109% | | 75-125 | 3 | 20 | 4 |
| Chromium | 0.5100 | ND | 0.5000 | mg/L | 102% | | 75-125 | 3 | 20 | 4 |
| Cobalt | 3.296 | 2.863 | 0.5000 | mg/L | 87% | NM | 75-125 | 0 | 20 | 4 |
| Copper | 0.4991 | ND | 0.5000 | mg/L | 100% | | 75-125 | 4 | 20 | 4 |
| Lead | 0.5502 | ND | 0.5000 | mg/L | 110% | | 75-125 | 5 | 20 | 4 |
| Molybdenum | 0.4920 | 0.003490 | 0.5000 | mg/L | 98% | | 75-125 | 1 | 20 | 4 |
| Nickel | 2.388 | 1.929 | 0.5000 | mg/L | 92% | | 75-125 | 0 | 20 | 4 |
| Selenium | 0.5629 | 0.01054 | 0.5000 | mg/L | 110% | | 75-125 | 1 | 20 | 4 |
| Silver | 0.2903 | ND | 0.2500 | mg/L | 116% | | 75-125 | 0 | 20 | 4 |
| Thallium | 0.5369 | 0.01914 | 0.5000 | mg/L | 104% | | 75-125 | 3 | 20 | 4 |
| Vanadium | 0.5415 | ND | 0.5000 | mg/L | 108% | | 75-125 | 2 | 20 | 4 |
| Zinc | 1.813 | 1.309 | 0.5000 | mg/L | 101% | | 75-125 | 1 | 20 | 4 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC967969** | **Batch:** | **282343** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC967969 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| 3-Chloropropene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Freon 12 | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Chloromethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Vinyl Chloride | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Bromomethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Chloroethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Trichlorofluoromethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Acetone | ND | | ug/Kg | 100 | 01/23/22 | 01/23/22 |
| Freon 113 | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,1-Dichloroethene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Methylene Chloride | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| MTBE | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,1-Dichloroethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 2-Butanone | ND | | ug/Kg | 100 | 01/23/22 | 01/23/22 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 2,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Chloroform | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Bromochloromethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,1-Dichloropropene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Carbon Tetrachloride | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,2-Dichloroethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Benzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Trichloroethene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Bromodichloromethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Dibromomethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Toluene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,3-Dichloropropane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Tetrachloroethene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Dibromochloromethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,2-Dibromoethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Chlorobenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Ethylbenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |

# Batch QC

| QC967969 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| m,p-Xylenes | ND | | ug/Kg | 10 | 01/23/22 | 01/23/22 |
| o-Xylene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Styrene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Bromoform | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Isopropylbenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Propylbenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Bromobenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 2-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 4-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| tert-Butylbenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| sec-Butylbenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| para-Isopropyl Toluene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| n-Butylbenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Hexachlorobutadiene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Naphthalene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| Xylene (total) | ND | | ug/Kg | 5.0 | 01/23/22 | 01/23/22 |
| **Surrogates** | | | | **Limits** | | |
| Dibromofluoromethane | 102% | | %REC | 70-130 | 01/23/22 | 01/23/22 |
| 1,2-Dichloroethane-d4 | 84% | | %REC | 70-145 | 01/23/22 | 01/23/22 |
| Toluene-d8 | 103% | | %REC | 70-145 | 01/23/22 | 01/23/22 |
| Bromofluorobenzene | 101% | | %REC | 70-145 | 01/23/22 | 01/23/22 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC967970** | **Batch:** | **282343** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC967970 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 44.99 | 50.00 | ug/Kg | 90% | | 70-131 |
| MTBE | 42.23 | 50.00 | ug/Kg | 84% | | 69-130 |
| Benzene | 49.46 | 50.00 | ug/Kg | 99% | | 70-130 |
| Trichloroethene | 48.59 | 50.00 | ug/Kg | 97% | | 70-130 |
| Toluene | 49.39 | 50.00 | ug/Kg | 99% | | 70-130 |
| Chlorobenzene | 49.69 | 50.00 | ug/Kg | 99% | | 70-130 |
| **Surrogates** | | | | | | |
| Dibromofluoromethane | 53.54 | 50.00 | ug/Kg | 107% | | 70-130 |
| 1,2-Dichloroethane-d4 | 42.77 | 50.00 | ug/Kg | 86% | | 70-145 |
| Toluene-d8 | 50.50 | 50.00 | ug/Kg | 101% | | 70-145 |
| Bromofluorobenzene | 51.36 | 50.00 | ug/Kg | 103% | | 70-145 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample Duplicate** | **Lab ID:** | **QC967971** | **Batch:** | **282343** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC967971 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 44.73 | 50.00 | ug/Kg | 89% | | 70-131 | 1 | 33 |
| MTBE | 40.26 | 50.00 | ug/Kg | 81% | | 69-130 | 5 | 30 |
| Benzene | 46.31 | 50.00 | ug/Kg | 93% | | 70-130 | 7 | 30 |
| Trichloroethene | 44.66 | 50.00 | ug/Kg | 89% | | 70-130 | 8 | 30 |
| Toluene | 46.57 | 50.00 | ug/Kg | 93% | | 70-130 | 6 | 30 |
| Chlorobenzene | 47.22 | 50.00 | ug/Kg | 94% | | 70-130 | 5 | 30 |
| **Surrogates** | | | | | | | | |
| Dibromofluoromethane | 52.25 | 50.00 | ug/Kg | 104% | | 70-130 | | |
| 1,2-Dichloroethane-d4 | 42.29 | 50.00 | ug/Kg | 85% | | 70-145 | | |
| Toluene-d8 | 50.73 | 50.00 | ug/Kg | 101% | | 70-145 | | |
| Bromofluorobenzene | 51.49 | 50.00 | ug/Kg | 103% | | 70-145 | | |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC968019** | **Batch:** | **282356** |
| **Matrix:** | **Soil** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC968019 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Antimony | ND | | mg/Kg | 3.0 | 01/24/22 | 01/24/22 |
| Arsenic | ND | | mg/Kg | 1.0 | 01/24/22 | 01/24/22 |
| Barium | ND | | mg/Kg | 1.0 | 01/24/22 | 01/24/22 |
| Beryllium | ND | | mg/Kg | 0.50 | 01/24/22 | 01/24/22 |
| Cadmium | ND | | mg/Kg | 0.50 | 01/24/22 | 01/24/22 |
| Chromium | ND | | mg/Kg | 1.0 | 01/24/22 | 01/24/22 |
| Cobalt | ND | | mg/Kg | 0.50 | 01/24/22 | 01/24/22 |
| Copper | ND | | mg/Kg | 1.0 | 01/24/22 | 01/24/22 |
| Lead | ND | | mg/Kg | 1.0 | 01/24/22 | 01/24/22 |
| Molybdenum | ND | | mg/Kg | 1.0 | 01/24/22 | 01/24/22 |
| Nickel | ND | | mg/Kg | 1.0 | 01/24/22 | 01/24/22 |
| Selenium | ND | | mg/Kg | 3.0 | 01/24/22 | 01/24/22 |
| Silver | ND | | mg/Kg | 0.50 | 01/24/22 | 01/24/22 |
| Thallium | ND | | mg/Kg | 3.0 | 01/24/22 | 01/24/22 |
| Vanadium | ND | | mg/Kg | 1.0 | 01/24/22 | 01/24/22 |
| Zinc | ND | | mg/Kg | 5.0 | 01/24/22 | 01/24/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC968020** | **Batch:** | **282356** |
| **Matrix:** | **Soil** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC968020 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Antimony | 101.2 | 100.0 | mg/Kg | 101% | | 80-120 |
| Arsenic | 106.9 | 100.0 | mg/Kg | 107% | | 80-120 |
| Barium | 104.9 | 100.0 | mg/Kg | 105% | | 80-120 |
| Beryllium | 100.1 | 100.0 | mg/Kg | 100% | | 80-120 |
| Cadmium | 105.2 | 100.0 | mg/Kg | 105% | | 80-120 |
| Chromium | 102.1 | 100.0 | mg/Kg | 102% | | 80-120 |
| Cobalt | 106.8 | 100.0 | mg/Kg | 107% | | 80-120 |
| Copper | 102.5 | 100.0 | mg/Kg | 102% | | 80-120 |
| Lead | 110.7 | 100.0 | mg/Kg | 111% | | 80-120 |
| Molybdenum | 106.9 | 100.0 | mg/Kg | 107% | | 80-120 |
| Nickel | 109.0 | 100.0 | mg/Kg | 109% | | 80-120 |
| Selenium | 98.14 | 100.0 | mg/Kg | 98% | | 80-120 |
| Silver | 56.09 | 50.00 | mg/Kg | 112% | | 80-120 |
| Thallium | 110.4 | 100.0 | mg/Kg | 110% | | 80-120 |
| Vanadium | 100.4 | 100.0 | mg/Kg | 100% | | 80-120 |
| Zinc | 110.8 | 100.0 | mg/Kg | 111% | | 80-120 |

# Batch QC

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|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC968021** | **Batch:** | **282356** |
| **Matrix (Source ID):** | **Soil (456489-001)** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC968021 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Antimony | 32.83 | 3.647 | 86.21 | mg/Kg | 34% | * | 75-125 | 0.86 |
| Arsenic | 91.90 | 3.501 | 86.21 | mg/Kg | 103% | | 75-125 | 0.86 |
| Barium | 242.4 | 193.9 | 86.21 | mg/Kg | 56% | * | 75-125 | 0.86 |
| Beryllium | 84.36 | 0.3645 | 86.21 | mg/Kg | 97% | | 75-125 | 0.86 |
| Cadmium | 88.46 | 0.1757 | 86.21 | mg/Kg | 102% | | 75-125 | 0.86 |
| Chromium | 141.6 | 53.47 | 86.21 | mg/Kg | 102% | | 75-125 | 0.86 |
| Cobalt | 97.18 | 13.61 | 86.21 | mg/Kg | 97% | | 75-125 | 0.86 |
| Copper | 113.2 | 29.88 | 86.21 | mg/Kg | 97% | | 75-125 | 0.86 |
| Lead | 104.6 | 22.02 | 86.21 | mg/Kg | 96% | | 75-125 | 0.86 |
| Molybdenum | 82.78 | ND | 86.21 | mg/Kg | 96% | | 75-125 | 0.86 |
| Nickel | 154.0 | 71.41 | 86.21 | mg/Kg | 96% | | 75-125 | 0.86 |
| Selenium | 80.39 | ND | 86.21 | mg/Kg | 93% | | 75-125 | 0.86 |
| Silver | 47.05 | ND | 43.10 | mg/Kg | 109% | | 75-125 | 0.86 |
| Thallium | 84.77 | 0.7461 | 86.21 | mg/Kg | 97% | | 75-125 | 0.86 |
| Vanadium | 133.2 | 43.30 | 86.21 | mg/Kg | 104% | | 75-125 | 0.86 |
| Zinc | 204.8 | 134.8 | 86.21 | mg/Kg | 81% | | 75-125 | 0.86 |

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|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC968022** | **Batch:** | **282356** |
| **Matrix (Source ID):** | **Soil (456489-001)** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC968022 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 39.60 | 3.647 | 89.29 | mg/Kg | 40% | * | 75-125 | 15 | 41 | 0.89 |
| Arsenic | 104.4 | 3.501 | 89.29 | mg/Kg | 113% | | 75-125 | 9 | 35 | 0.89 |
| Barium | 290.2 | 193.9 | 89.29 | mg/Kg | 108% | | 75-125 | 17 | 20 | 0.89 |
| Beryllium | 89.53 | 0.3645 | 89.29 | mg/Kg | 100% | | 75-125 | 2 | 20 | 0.89 |
| Cadmium | 94.36 | 0.1757 | 89.29 | mg/Kg | 105% | | 75-125 | 3 | 20 | 0.89 |
| Chromium | 168.5 | 53.47 | 89.29 | mg/Kg | 129% | * | 75-125 | 15 | 20 | 0.89 |
| Cobalt | 105.7 | 13.61 | 89.29 | mg/Kg | 103% | | 75-125 | 5 | 20 | 0.89 |
| Copper | 260.8 | 29.88 | 89.29 | mg/Kg | 259% | * | 75-125 | 77* | 20 | 0.89 |
| Lead | 115.8 | 22.02 | 89.29 | mg/Kg | 105% | | 75-125 | 7 | 20 | 0.89 |
| Molybdenum | 97.76 | ND | 89.29 | mg/Kg | 109% | | 75-125 | 13 | 20 | 0.89 |
| Nickel | 191.8 | 71.41 | 89.29 | mg/Kg | 135% | * | 75-125 | 20 | 20 | 0.89 |
| Selenium | 83.13 | ND | 89.29 | mg/Kg | 93% | | 75-125 | 0 | 20 | 0.89 |
| Silver | 50.37 | ND | 44.64 | mg/Kg | 113% | | 75-125 | 3 | 20 | 0.89 |
| Thallium | 88.61 | 0.7461 | 89.29 | mg/Kg | 98% | | 75-125 | 1 | 20 | 0.89 |
| Vanadium | 133.8 | 43.30 | 89.29 | mg/Kg | 101% | | 75-125 | 2 | 20 | 0.89 |
| Zinc | 221.9 | 134.8 | 89.29 | mg/Kg | 98% | | 75-125 | 7 | 20 | 0.89 |

# Batch QC

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|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC968052** | **Batch:** | **282363** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC968052 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| DRO C10-C28 | ND | | mg/Kg | 10 | 01/24/22 | 01/25/22 |
| ORO C28-C44 | ND | | mg/Kg | 20 | 01/24/22 | 01/25/22 |
| **Surrogates** | | | | **Limits** | | |
| n-Triacontane | 104% | | %REC | 70-130 | 01/24/22 | 01/25/22 |

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|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC968053** | **Batch:** | **282363** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC968053 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Diesel C10-C28 | 228.4 | 247.5 | mg/Kg | 92% | | 76-122 |
| **Surrogates** | | | | | | |
| n-Triacontane | 8.961 | 9.901 | mg/Kg | 91% | | 70-130 |

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|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC968054** | **Batch:** | **282363** |
| **Matrix (Source ID):** | **Soil (457057-001)** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC968054 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Diesel C10-C28 | 204.5 | 4.360 | 250.6 | mg/Kg | 80% | | 62-126 | 1 |
| **Surrogates** | | | | | | | | |
| n-Triacontane | 10.53 | | 10.03 | mg/Kg | 105% | | 70-130 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC968055** | **Batch:** | **282363** |
| **Matrix (Source ID):** | **Soil (457057-001)** | **Method:** | **EPA 8015M** | **Prep Method:** | **EPA 3580** |

| QC968055 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel C10-C28 | 193.0 | 4.360 | 246.5 | mg/Kg | 77% | | 62-126 | 4 | 35 | 0.99 |
| **Surrogates** | | | | | | | | | | |
| n-Triacontane | 10.05 | | 9.862 | mg/Kg | 102% | | 70-130 | | | 0.99 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC968072** | **Batch:** | **282367** |
| **Matrix:** | **Soil** | **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC968072 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Mercury | ND | | mg/Kg | 0.14 | 01/24/22 | 01/24/22 |

# Batch QC

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|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC968073** |
| **Batch:** | **282367** | **Matrix:** | **Soil** |
| **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC968073 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Mercury | 0.8587 | 0.8333 | mg/Kg | 103% | | 80-120 |

| | | | |
|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC968074** |
| **Batch:** | **282367** | **Matrix (Source ID):** | **Soil (457144-001)** |
| **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC968074 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.9620 | ND | 0.9091 | mg/Kg | 106% | | 75-125 | 1.1 |

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|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC968075** |
| **Batch:** | **282367** | **Matrix (Source ID):** | **Soil (457144-001)** |
| **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC968075 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.8655 | ND | 0.8333 | mg/Kg | 104% | | 75-125 | 2 | 20 | 1 |

# Batch QC

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|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC968247** | **Batch:** | **282420** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC968247 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| 3-Chloropropene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| cis-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| trans-1,4-Dichloro-2-butene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Freon 12 | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Chloromethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Vinyl Chloride | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Bromomethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Chloroethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Trichlorofluoromethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Acetone | ND | | ug/Kg | 100 | 01/25/22 | 01/25/22 |
| Freon 113 | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,1-Dichloroethene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Methylene Chloride | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| MTBE | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| trans-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,1-Dichloroethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 2-Butanone | ND | | ug/Kg | 100 | 01/25/22 | 01/25/22 |
| cis-1,2-Dichloroethene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 2,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Chloroform | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Bromochloromethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,1,1-Trichloroethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,1-Dichloropropene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Carbon Tetrachloride | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,2-Dichloroethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Benzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Trichloroethene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,2-Dichloropropane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Bromodichloromethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Dibromomethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 4-Methyl-2-Pentanone | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| cis-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Toluene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| trans-1,3-Dichloropropene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,1,2-Trichloroethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,3-Dichloropropane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Tetrachloroethene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Dibromochloromethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,2-Dibromoethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Chlorobenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Ethylbenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |

# Batch QC

| QC968247 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| m,p-Xylenes | ND | | ug/Kg | 10 | 01/25/22 | 01/25/22 |
| o-Xylene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Styrene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Bromoform | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Isopropylbenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,2,3-Trichloropropane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Propylbenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Bromobenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,3,5-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 2-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 4-Chlorotoluene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| tert-Butylbenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,2,4-Trimethylbenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| sec-Butylbenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| para-Isopropyl Toluene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,3-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,4-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| n-Butylbenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,2-Dichlorobenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,2-Dibromo-3-Chloropropane | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,2,4-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Hexachlorobutadiene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Naphthalene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| 1,2,3-Trichlorobenzene | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| Xylene (total) | ND | | ug/Kg | 5.0 | 01/25/22 | 01/25/22 |
| **Surrogates** | | | | **Limits** | | |
| Dibromofluoromethane | 108% | | %REC | 70-130 | 01/25/22 | 01/25/22 |
| 1,2-Dichloroethane-d4 | 96% | | %REC | 70-145 | 01/25/22 | 01/25/22 |
| Toluene-d8 | 103% | | %REC | 70-145 | 01/25/22 | 01/25/22 |
| Bromofluorobenzene | 100% | | %REC | 70-145 | 01/25/22 | 01/25/22 |

# Batch QC

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|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC968248** | **Batch:** | **282420** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC968248 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 57.08 | 50.00 | ug/Kg | 114% | | 70-131 |
| MTBE | 46.68 | 50.00 | ug/Kg | 93% | | 69-130 |
| Benzene | 51.73 | 50.00 | ug/Kg | 103% | | 70-130 |
| Trichloroethene | 53.29 | 50.00 | ug/Kg | 107% | | 70-130 |
| Toluene | 53.40 | 50.00 | ug/Kg | 107% | | 70-130 |
| Chlorobenzene | 53.89 | 50.00 | ug/Kg | 108% | | 70-130 |
| **Surrogates** | | | | | | |
| Dibromofluoromethane | 56.06 | 50.00 | ug/Kg | 112% | | 70-130 |
| 1,2-Dichloroethane-d4 | 49.14 | 50.00 | ug/Kg | 98% | | 70-145 |
| Toluene-d8 | 50.52 | 50.00 | ug/Kg | 101% | | 70-145 |
| Bromofluorobenzene | 49.51 | 50.00 | ug/Kg | 99% | | 70-145 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample Duplicate** | **Lab ID:** | **QC968249** | **Batch:** | **282420** |
| **Matrix:** | **Soil** | **Method:** | **EPA 8260B** | **Prep Method:** | **EPA 5035** |

| QC968249 Analyte | Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim |
|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 54.50 | 50.00 | ug/Kg | 109% | | 70-131 | 5 | 33 |
| MTBE | 45.84 | 50.00 | ug/Kg | 92% | | 69-130 | 2 | 30 |
| Benzene | 51.75 | 50.00 | ug/Kg | 103% | | 70-130 | 0 | 30 |
| Trichloroethene | 49.64 | 50.00 | ug/Kg | 99% | | 70-130 | 7 | 30 |
| Toluene | 50.59 | 50.00 | ug/Kg | 101% | | 70-130 | 5 | 30 |
| Chlorobenzene | 52.80 | 50.00 | ug/Kg | 106% | | 70-130 | 2 | 30 |
| **Surrogates** | | | | | | | | |
| Dibromofluoromethane | 54.25 | 50.00 | ug/Kg | 108% | | 70-130 | | |
| 1,2-Dichloroethane-d4 | 49.16 | 50.00 | ug/Kg | 98% | | 70-145 | | |
| Toluene-d8 | 49.92 | 50.00 | ug/Kg | 100% | | 70-145 | | |
| Bromofluorobenzene | 50.85 | 50.00 | ug/Kg | 102% | | 70-145 | | |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC968422** | **Batch:** | **282483** |
| **Matrix:** | **Soil** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC968422 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Antimony | ND | | mg/Kg | 3.0 | 01/25/22 | 01/26/22 |
| Arsenic | ND | | mg/Kg | 1.0 | 01/25/22 | 01/26/22 |
| Barium | ND | | mg/Kg | 1.0 | 01/25/22 | 01/26/22 |
| Beryllium | ND | | mg/Kg | 0.50 | 01/25/22 | 01/26/22 |
| Cadmium | ND | | mg/Kg | 0.50 | 01/25/22 | 01/26/22 |
| Chromium | ND | | mg/Kg | 1.0 | 01/25/22 | 01/26/22 |
| Cobalt | ND | | mg/Kg | 0.50 | 01/25/22 | 01/26/22 |
| Copper | ND | | mg/Kg | 1.0 | 01/25/22 | 01/26/22 |
| Lead | ND | | mg/Kg | 1.0 | 01/25/22 | 01/26/22 |
| Molybdenum | ND | | mg/Kg | 1.0 | 01/25/22 | 01/26/22 |
| Nickel | ND | | mg/Kg | 1.0 | 01/25/22 | 01/26/22 |
| Selenium | ND | | mg/Kg | 3.0 | 01/25/22 | 01/26/22 |
| Silver | ND | | mg/Kg | 0.50 | 01/25/22 | 01/26/22 |
| Thallium | ND | | mg/Kg | 3.0 | 01/25/22 | 01/26/22 |
| Vanadium | ND | | mg/Kg | 1.0 | 01/25/22 | 01/26/22 |
| Zinc | ND | | mg/Kg | 5.0 | 01/25/22 | 01/26/22 |

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|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC968423** | **Batch:** | **282483** |
| **Matrix:** | **Soil** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC968423 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Antimony | 103.6 | 100.0 | mg/Kg | 104% | | 80-120 |
| Arsenic | 101.5 | 100.0 | mg/Kg | 101% | | 80-120 |
| Barium | 104.7 | 100.0 | mg/Kg | 105% | | 80-120 |
| Beryllium | 102.3 | 100.0 | mg/Kg | 102% | | 80-120 |
| Cadmium | 101.1 | 100.0 | mg/Kg | 101% | | 80-120 |
| Chromium | 100.6 | 100.0 | mg/Kg | 101% | | 80-120 |
| Cobalt | 104.3 | 100.0 | mg/Kg | 104% | | 80-120 |
| Copper | 102.7 | 100.0 | mg/Kg | 103% | | 80-120 |
| Lead | 105.3 | 100.0 | mg/Kg | 105% | | 80-120 |
| Molybdenum | 107.1 | 100.0 | mg/Kg | 107% | | 80-120 |
| Nickel | 105.2 | 100.0 | mg/Kg | 105% | | 80-120 |
| Selenium | 87.04 | 100.0 | mg/Kg | 87% | | 80-120 |
| Silver | 47.59 | 50.00 | mg/Kg | 95% | | 80-120 |
| Thallium | 104.4 | 100.0 | mg/Kg | 104% | | 80-120 |
| Vanadium | 99.09 | 100.0 | mg/Kg | 99% | | 80-120 |
| Zinc | 98.20 | 100.0 | mg/Kg | 98% | | 80-120 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC968424** | **Batch:** | **282483** |
| **Matrix (Source ID):** | **Soil (457099-011)** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC968424 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Antimony | 55.19 | ND | 100.0 | mg/Kg | 55% | * | 75-125 | 1 |
| Arsenic | 107.8 | 2.335 | 100.0 | mg/Kg | 106% | | 75-125 | 1 |
| Barium | 154.1 | 42.57 | 100.0 | mg/Kg | 112% | | 75-125 | 1 |
| Beryllium | 104.6 | 0.1465 | 100.0 | mg/Kg | 104% | | 75-125 | 1 |
| Cadmium | 104.0 | ND | 100.0 | mg/Kg | 104% | | 75-125 | 1 |
| Chromium | 115.1 | 11.63 | 100.0 | mg/Kg | 103% | | 75-125 | 1 |
| Cobalt | 107.7 | 3.844 | 100.0 | mg/Kg | 104% | | 75-125 | 1 |
| Copper | 114.5 | 6.411 | 100.0 | mg/Kg | 108% | | 75-125 | 1 |
| Lead | 113.4 | 8.575 | 100.0 | mg/Kg | 105% | | 75-125 | 1 |
| Molybdenum | 106.7 | ND | 100.0 | mg/Kg | 107% | | 75-125 | 1 |
| Nickel | 112.0 | 6.691 | 100.0 | mg/Kg | 105% | | 75-125 | 1 |
| Selenium | 88.94 | ND | 100.0 | mg/Kg | 89% | | 75-125 | 1 |
| Silver | 48.45 | ND | 50.00 | mg/Kg | 97% | | 75-125 | 1 |
| Thallium | 103.4 | ND | 100.0 | mg/Kg | 103% | | 75-125 | 1 |
| Vanadium | 131.1 | 25.16 | 100.0 | mg/Kg | 106% | | 75-125 | 1 |
| Zinc | 134.7 | 26.65 | 100.0 | mg/Kg | 108% | | 75-125 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC968425** | **Batch:** | **282483** |
| **Matrix (Source ID):** | **Soil (457099-011)** | **Method:** | **EPA 6010B** | **Prep Method:** | **EPA 3050B** |

| QC968425 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 50.60 | ND | 95.24 | mg/Kg | 53% | * | 75-125 | 4 | 41 | 0.95 |
| Arsenic | 102.7 | 2.335 | 95.24 | mg/Kg | 105% | | 75-125 | 0 | 35 | 0.95 |
| Barium | 147.3 | 42.57 | 95.24 | mg/Kg | 110% | | 75-125 | 1 | 20 | 0.95 |
| Beryllium | 99.55 | 0.1465 | 95.24 | mg/Kg | 104% | | 75-125 | 0 | 20 | 0.95 |
| Cadmium | 98.74 | ND | 95.24 | mg/Kg | 104% | | 75-125 | 0 | 20 | 0.95 |
| Chromium | 110.6 | 11.63 | 95.24 | mg/Kg | 104% | | 75-125 | 0 | 20 | 0.95 |
| Cobalt | 103.0 | 3.844 | 95.24 | mg/Kg | 104% | | 75-125 | 0 | 20 | 0.95 |
| Copper | 109.3 | 6.411 | 95.24 | mg/Kg | 108% | | 75-125 | 0 | 20 | 0.95 |
| Lead | 107.1 | 8.575 | 95.24 | mg/Kg | 103% | | 75-125 | 1 | 20 | 0.95 |
| Molybdenum | 101.8 | ND | 95.24 | mg/Kg | 107% | | 75-125 | 0 | 20 | 0.95 |
| Nickel | 106.9 | 6.691 | 95.24 | mg/Kg | 105% | | 75-125 | 0 | 20 | 0.95 |
| Selenium | 85.21 | ND | 95.24 | mg/Kg | 89% | | 75-125 | 1 | 20 | 0.95 |
| Silver | 45.87 | ND | 47.62 | mg/Kg | 96% | | 75-125 | 1 | 20 | 0.95 |
| Thallium | 98.47 | ND | 95.24 | mg/Kg | 103% | | 75-125 | 0 | 20 | 0.95 |
| Vanadium | 125.2 | 25.16 | 95.24 | mg/Kg | 105% | | 75-125 | 1 | 20 | 0.95 |
| Zinc | 127.9 | 26.65 | 95.24 | mg/Kg | 106% | | 75-125 | 1 | 20 | 0.95 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC968650** | **Batch:** | **282563** |
| **Matrix:** | **Miscell.** | **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC968650 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Mercury | ND | | mg/Kg | 0.14 | 01/26/22 | 01/27/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC968651** | **Batch:** | **282563** |
| **Matrix:** | **Miscell.** | **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC968651 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Mercury | 0.8157 | 0.8333 | mg/Kg | 98% | | 80-120 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC968652** | **Batch:** | **282563** |
| **Matrix (Source ID):** | **Soil (457099-011)** | **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC968652 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Mercury | 0.8018 | ND | 0.8333 | mg/Kg | 96% | | 75-125 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC968653** | **Batch:** | **282563** |
| **Matrix (Source ID):** | **Soil (457099-011)** | **Method:** | **EPA 7471A** | **Prep Method:** | **METHOD** |

| QC968653 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 0.8270 | ND | 0.8475 | mg/Kg | 98% | | 75-125 | 1 | 20 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Blank** | **Lab ID:** | **QC968744** | **Batch:** | **282594** |
| **Matrix:** | **Water** | **Method:** | **EPA 7470A** | **Prep Method:** | **METHOD** |

| QC968744 Analyte | Result | Qual | Units | RL | Prepared | Analyzed |
|---|---|---|---|---|---|---|
| Mercury | ND | | ug/L | 0.40 | 01/26/22 | 01/27/22 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Lab Control Sample** | **Lab ID:** | **QC968745** | **Batch:** | **282594** |
| **Matrix:** | **Water** | **Method:** | **EPA 7470A** | **Prep Method:** | **METHOD** |

| QC968745 Analyte | Result | Spiked | Units | Recovery | Qual | Limits |
|---|---|---|---|---|---|---|
| Mercury | 5.058 | 5.000 | ug/L | 101% | | 80-120 |

# Batch QC

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike** | **Lab ID:** | **QC968746** | **Batch:** | **282594** |
| **Matrix (Source ID):** | **Filtrate (457099-010)** | **Method:** | **EPA 7470A** | **Prep Method:** | **METHOD** |

| QC968746 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | DF |
|---|---|---|---|---|---|---|---|---|
| Mercury | 4.293 | ND | 5.000 | ug/L | 86% | | 75-125 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| **Type:** | **Matrix Spike Duplicate** | **Lab ID:** | **QC968747** | **Batch:** | **282594** |
| **Matrix (Source ID):** | **Filtrate (457099-010)** | **Method:** | **EPA 7470A** | **Prep Method:** | **METHOD** |

| QC968747 Analyte | Result | Source Sample Result | Spiked | Units | Recovery | Qual | Limits | RPD | RPD Lim | DF |
|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 4.254 | ND | 5.000 | ug/L | 85% | | 75-125 | 1 | 20 | 1 |

| | |
|---|---|
| * | Value is outside QC limits |
| ND | Not Detected |
| NM | Not Meaningful |

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# JONES ENVIRONMENTAL LABORATORY RESULTS

**Client:** Dudek
**Client Address:** 605 Third St.
Encinitas, CA

**Attn:** Susie Smith

**Project:** Norco College CHP+K
**Project Address:** 2001 Third Street
Norco, CA

**Report date:** 1/15/2022
**Jones Ref. No.:** H-0112
**Client Ref. No.:** 13705

**Date Sampled:** 1/15/2022
**Date Received:** 1/15/2022
**Date Analyzed:** 1/15/2022
**Physical State:** Soil Gas

---

## ANALYSES REQUESTED

1. EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No tracer was detected in any of the samples reported herein.

The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min, except when noted differently on the chain of custody record. A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of collection.

**Approval:** AnOToole

Annalise O’Toole
Mobile Lab Manager

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# JONES ENVIRONMENTAL LABORATORY RESULTS

**Client:** Dudek
**Client Address:** 605 Third St.
Encinitas, CA

**Attn:** Susie Smith

**Project:** Norco College CHP+K
**Project Address:** 2001 Third Street
Norco, CA

**Report date:** 1/15/2022
**Jones Ref. No.:** H-0112
**Client Ref. No.:** 13705

**Date Sampled:** 1/15/2022
**Date Received:** 1/15/2022
**Date Analyzed:** 1/15/2022
**Physical State:** Soil Gas

---

## EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

| **Sample ID:** | **SV1-5** | **SV1-15** | **SV6-5** | **SV6-15** | **SV3-5** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **H-0112-01** | **H-0112-02** | **H-0112-03** | **H-0112-04** | **H-0112-05** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| Benzene | ND | ND | **11** | **16** | ND | 8 | μg/m3 |
| Bromobenzene | ND | ND | ND | ND | ND | 8 | μg/m3 |
| Bromodichloromethane | ND | ND | ND | ND | ND | 8 | μg/m3 |
| Bromoform | ND | ND | ND | ND | ND | 8 | μg/m3 |
| n-Butylbenzene | ND | ND | ND | ND | ND | 12 | μg/m3 |
| sec-Butylbenzene | ND | ND | ND | ND | ND | 12 | μg/m3 |
| tert-Butylbenzene | ND | ND | ND | ND | ND | 12 | μg/m3 |
| Carbon tetrachloride | ND | ND | ND | ND | ND | 8 | μg/m3 |
| Chlorobenzene | ND | ND | ND | ND | ND | 8 | μg/m3 |
| Chloroform | ND | ND | ND | ND | ND | 8 | μg/m3 |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | 12 | μg/m3 |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | 12 | μg/m3 |
| Dibromochloromethane | ND | ND | ND | ND | ND | 8 | μg/m3 |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | ND | ND | 8 | μg/m3 |
| 1,2-Dibromoethane (EDB) | ND | ND | ND | ND | ND | 8 | μg/m3 |
| Dibromomethane | ND | ND | ND | ND | ND | 8 | μg/m3 |
| 1,2- Dichlorobenzene | ND | ND | ND | ND | ND | 16 | μg/m3 |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | 16 | μg/m3 |
| 1,4-Dichlorobenzene | ND | ND | ND | ND | ND | 16 | μg/m3 |
| Dichlorodifluoromethane | ND | ND | ND | ND | ND | 16 | μg/m3 |
| 1,1-Dichloroethane | ND | ND | ND | ND | ND | 8 | μg/m3 |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | 8 | μg/m3 |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | 8 | μg/m3 |
| cis-1,2-Dichloroethene | ND | ND | ND | ND | ND | 8 | μg/m3 |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | ND | 8 | μg/m3 |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | 8 | μg/m3 |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | 8 | μg/m3 |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | 16 | μg/m3 |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | 10 | μg/m3 |

# JONES ENVIRONMENTAL LABORATORY RESULTS

## EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

| **Sample ID:** | **SV1-5** | **SV1-15** | **SV6-5** | **SV6-15** | **SV3-5** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **H-0112-01** | **H-0112-02** | **H-0112-03** | **H-0112-04** | **H-0112-05** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| cis-1,3-Dichloropropene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Ethylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Freon 113 | ND | ND | ND | ND | ND | 16 | µg/m3 |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | 24 | µg/m3 |
| Isopropylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 4-Isopropyltoluene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Methylene chloride | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Naphthalene | ND | ND | ND | ND | ND | 40 | µg/m3 |
| n-Propylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Styrene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | 16 | µg/m3 |
| Tetrachloroethene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Toluene | **36** | **106** | **77** | **123** | **72** | 8 | µg/m3 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Trichloroethene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Trichlorofluoromethane | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Vinyl chloride | ND | ND | ND | ND | ND | 8 | µg/m3 |
| m,p-Xylene | ND | ND | **25** | ND | **13** | 16 | µg/m3 |
| o-Xylene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| MTBE | ND | ND | ND | ND | ND | 40 | µg/m3 |
| Ethyl-tert-butylether | ND | ND | ND | ND | ND | 40 | µg/m3 |
| Di-isopropylether | ND | ND | ND | ND | ND | 40 | µg/m3 |
| tert-amylmethylether | ND | ND | ND | ND | ND | 40 | µg/m3 |
| tert-Butylalcohol | ND | ND | ND | ND | ND | 400 | µg/m3 |
| Gasoline Range Organics (C4-C12) | ND | ND | **30600** | ND | ND | 2000 | µg/m3 |
| **Tracer:** | | | | | | | |
| n-Pentane | ND | ND | ND | ND | ND | 80 | µg/m3 |
| n-Hexane | ND | ND | ND | ND | ND | 80 | µg/m3 |
| n-Heptane | ND | ND | ND | ND | ND | 80 | µg/m3 |
| **Dilution Factor** | 1 | 1 | 1 | 1 | 1 | | |
| **Surrogate Recoveries:** | | | | | | **QC Limits** | |
| Dibromofluoromethane | 104% | 109% | 107% | 101% | 109% | 60 - 140 | |
| Toluene-$d_8$ | 96% | 95% | 94% | 95% | 94% | 60 - 140 | |
| 4-Bromofluorobenzene | 93% | 89% | 102% | 90% | 99% | 60 - 140 | |
| **Batch ID:** | H1-011522-01 | H1-011522-01 | H1-011522-01 | H1-011522-01 | H1-011522-01 | | |

ND = Value below reporting limit

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# JONES ENVIRONMENTAL LABORATORY RESULTS

**Client:** Dudek
**Client Address:** 605 Third St.
Encinitas, CA

**Attn:** Susie Smith

**Project:** Norco College CHP+K
**Project Address:** 2001 Third Street
Norco, CA

**Report date:** 1/15/2022
**Jones Ref. No.:** H-0112
**Client Ref. No.:** 13705

**Date Sampled:** 1/15/2022
**Date Received:** 1/15/2022
**Date Analyzed:** 1/15/2022
**Physical State:** Soil Gas

---

## EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

| **Sample ID:** | **SV3-10** | **SV7-5** | **SV7-15** | **SV4-5** | **SV4-5 REP** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **H-0112-06** | **H-0112-07** | **H-0112-08** | **H-0112-09** | **H-0112-10** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| Benzene | ND | **16** | **42** | **17** | **19** | 8 | µg/m3 |
| Bromobenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Bromodichloromethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Bromoform | ND | ND | ND | ND | ND | 8 | µg/m3 |
| n-Butylbenzene | ND | ND | ND | ND | ND | 12 | µg/m3 |
| sec-Butylbenzene | ND | ND | ND | ND | ND | 12 | µg/m3 |
| tert-Butylbenzene | ND | ND | ND | ND | ND | 12 | µg/m3 |
| Carbon tetrachloride | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Chlorobenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Chloroform | ND | **17** | ND | **28** | **30** | 8 | µg/m3 |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | 12 | µg/m3 |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | 12 | µg/m3 |
| Dibromochloromethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2-Dibromoethane (EDB) | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Dibromomethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2- Dichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,4-Dichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| Dichlorodifluoromethane | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,1-Dichloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| cis-1,2-Dichloroethene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | 10 | µg/m3 |

# JONES ENVIRONMENTAL LABORATORY RESULTS

## EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

| **Sample ID:** | **SV3-10** | **SV7-5** | **SV7-15** | **SV4-5** | **SV4-5 REP** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **H-0112-06** | **H-0112-07** | **H-0112-08** | **H-0112-09** | **H-0112-10** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| cis-1,3-Dichloropropene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Ethylbenzene | ND | ND | ND | **19** | **23** | 8 | µg/m3 |
| Freon 113 | ND | ND | ND | ND | ND | 16 | µg/m3 |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | 24 | µg/m3 |
| Isopropylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 4-Isopropyltoluene | ND | ND | ND | **21** | **26** | 8 | µg/m3 |
| Methylene chloride | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Naphthalene | ND | ND | ND | ND | ND | 40 | µg/m3 |
| n-Propylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Styrene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | 16 | µg/m3 |
| Tetrachloroethene | ND | ND | ND | **41** | **49** | 8 | µg/m3 |
| Toluene | **159** | **121** | **94** | **236** | **262** | 8 | µg/m3 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Trichloroethene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Trichlorofluoromethane | ND | **20** | ND | ND | ND | 16 | µg/m3 |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2,4-Trimethylbenzene | ND | ND | ND | **27** | **30** | 8 | µg/m3 |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Vinyl chloride | ND | ND | ND | ND | ND | 8 | µg/m3 |
| m,p-Xylene | ND | ND | ND | **100** | **110** | 16 | µg/m3 |
| o-Xylene | ND | **9** | ND | **29** | **31** | 8 | µg/m3 |
| MTBE | ND | ND | ND | ND | ND | 40 | µg/m3 |
| Ethyl-tert-butylether | ND | ND | ND | ND | ND | 40 | µg/m3 |
| Di-isopropylether | ND | ND | ND | ND | ND | 40 | µg/m3 |
| tert-amylmethylether | ND | ND | ND | ND | ND | 40 | µg/m3 |
| tert-Butylalcohol | ND | ND | ND | ND | ND | 400 | µg/m3 |
| Gasoline Range Organics (C4-C12) | ND | **35400** | ND | **388000** | **418000** | 2000 | µg/m3 |
| **Tracer:** | | | | | | | |
| n-Pentane | ND | ND | ND | ND | ND | 80 | µg/m3 |
| n-Hexane | ND | ND | ND | ND | ND | 80 | µg/m3 |
| n-Heptane | ND | ND | ND | ND | ND | 80 | µg/m3 |
| **Dilution Factor** | 1 | 1 | 1 | 1 | 1 | | |
| **Surrogate Recoveries:** | | | | | | **QC Limits** | |
| Dibromofluoromethane | 110% | 104% | 104% | 103% | 102% | 60 - 140 | |
| Toluene-$d_8$ | 94% | 93% | 95% | 106% | 108% | 60 - 140 | |
| 4-Bromofluorobenzene | 87% | 104% | 96% | 112% | 133% | 60 - 140 | |
| **Batch ID:** | H1-011522-01 | H1-011522-01 | H1-011522-01 | H1-011522-01 | H1-011522-01 | | |

ND = Value below reporting limit

# JONES ENVIRONMENTAL LABORATORY RESULTS

| | | | |
|---|---|---|---|
| **Client:** | Dudek | **Report date:** | 1/15/2022 |
| **Client Address:** | 605 Third St.<br>Encinitas, CA | **Jones Ref. No.:** | H-0112 |
| | | **Client Ref. No.:** | 13705 |
| **Attn:** | Susie Smith | **Date Sampled:** | 1/15/2022 |
| | | **Date Received:** | 1/15/2022 |
| **Project:** | Norco College CHP+K | **Date Analyzed:** | 1/15/2022 |
| **Project Address:** | 2001 Third Street<br>Norco, CA | **Physical State:** | Soil Gas |

## EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

| **Sample ID:** | **SV4-15** | **SV5-5** | **SV5-15** | **SV2-5** | **SV2-10** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **H-0112-11** | **H-0112-12** | **H-0112-13** | **H-0112-14** | **H-0112-15** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| Benzene | **32** | **12** | ND | ND | ND | 8 | µg/m3 |
| Bromobenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Bromodichloromethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Bromoform | ND | ND | ND | ND | ND | 8 | µg/m3 |
| n-Butylbenzene | ND | ND | ND | ND | ND | 12 | µg/m3 |
| sec-Butylbenzene | ND | ND | ND | ND | ND | 12 | µg/m3 |
| tert-Butylbenzene | ND | ND | ND | ND | ND | 12 | µg/m3 |
| Carbon tetrachloride | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Chlorobenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Chloroform | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 2-Chlorotoluene | ND | ND | ND | ND | ND | 12 | µg/m3 |
| 4-Chlorotoluene | ND | ND | ND | ND | ND | 12 | µg/m3 |
| Dibromochloromethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2-Dibromo-3-chloropropane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2-Dibromoethane (EDB) | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Dibromomethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2- Dichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,3-Dichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,4-Dichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| Dichlorodifluoromethane | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,1-Dichloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| cis-1,2-Dichloroethene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2-Dichloropropane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,3-Dichloropropane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 2,2-Dichloropropane | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,1-Dichloropropene | ND | ND | ND | ND | ND | 10 | µg/m3 |

# JONES ENVIRONMENTAL LABORATORY RESULTS

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## EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

| **Sample ID:** | **SV4-15** | **SV5-5** | **SV5-15** | **SV2-5** | **SV2-10** | | |
|---|---|---|---|---|---|---|---|
| **Jones ID:** | **H-0112-11** | **H-0112-12** | **H-0112-13** | **H-0112-14** | **H-0112-15** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | | | | |
| cis-1,3-Dichloropropene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| trans-1,3-Dichloropropene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Ethylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Freon 113 | ND | ND | ND | ND | ND | 16 | µg/m3 |
| Hexachlorobutadiene | ND | ND | ND | ND | ND | 24 | µg/m3 |
| Isopropylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 4-Isopropyltoluene | ND | ND | **10** | ND | ND | 8 | µg/m3 |
| Methylene chloride | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Naphthalene | ND | ND | ND | ND | ND | 40 | µg/m3 |
| n-Propylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Styrene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,1,1,2-Tetrachloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,1,2,2-Tetrachloroethane | ND | ND | ND | ND | ND | 16 | µg/m3 |
| Tetrachloroethene | **18** | **24** | **11** | ND | ND | 8 | µg/m3 |
| Toluene | **95** | **101** | **32** | **46** | **34** | 8 | µg/m3 |
| 1,2,3-Trichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,2,4-Trichlorobenzene | ND | ND | ND | ND | ND | 16 | µg/m3 |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,1,2-Trichloroethane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Trichloroethene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Trichlorofluoromethane | ND | **22** | **26** | ND | ND | 16 | µg/m3 |
| 1,2,3-Trichloropropane | ND | ND | ND | ND | ND | 8 | µg/m3 |
| 1,2,4-Trimethylbenzene | **9** | ND | ND | ND | ND | 8 | µg/m3 |
| 1,3,5-Trimethylbenzene | ND | ND | ND | ND | ND | 8 | µg/m3 |
| Vinyl chloride | ND | ND | ND | ND | ND | 8 | µg/m3 |
| m,p-Xylene | **32** | **19** | ND | ND | ND | 16 | µg/m3 |
| o-Xylene | ND | **9** | ND | ND | ND | 8 | µg/m3 |
| MTBE | ND | ND | ND | ND | ND | 40 | µg/m3 |
| Ethyl-tert-butylether | ND | ND | ND | ND | ND | 40 | µg/m3 |
| Di-isopropylether | ND | ND | ND | ND | ND | 40 | µg/m3 |
| tert-amylmethylether | ND | ND | ND | ND | ND | 40 | µg/m3 |
| tert-Butylalcohol | ND | ND | ND | ND | ND | 400 | µg/m3 |
| Gasoline Range Organics (C4-C12) | ND | **34900** | ND | ND | ND | 2000 | µg/m3 |
| **Tracer:** | | | | | | | |
| n-Pentane | ND | ND | ND | ND | ND | 80 | µg/m3 |
| n-Hexane | ND | ND | ND | ND | ND | 80 | µg/m3 |
| n-Heptane | ND | ND | ND | ND | ND | 80 | µg/m3 |
| **Dilution Factor** | 1 | 1 | 1 | 1 | 1 | | |
| **Surrogate Recoveries:** | | | | | | **QC Limits** | |
| Dibromofluoromethane | 99% | 99% | 102% | 106% | 105% | 60 - 140 | |
| Toluene-d8 | 94% | 95% | 94% | 95% | 94% | 60 - 140 | |
| 4-Bromofluorobenzene | 100% | 105% | 98% | 94% | 95% | 60 - 140 | |
| **Batch ID:** | H1-011522-01 | H1-011522-01 | H1-011522-01 | H1-011522-01 | H1-011522-01 | | |

ND = Value below reporting limit

# JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

| | | | |
|---|---|---|---|
| **Client:** | Dudek | **Report date:** | 1/15/2022 |
| **Client Address:** | 605 Third St.<br>Encinitas, CA | **Jones Ref. No.:** | H-0112 |
| | | **Client Ref. No.:** | 13705 |
| **Attn:** | Susie Smith | **Date Sampled:** | 1/15/2022 |
| | | **Date Received:** | 1/15/2022 |
| **Project:** | Norco College CHP+K | **Date Analyzed:** | 1/15/2022 |
| **Project Address:** | 2001 Third Street<br>Norco, CA | **Physical State:** | Soil Gas |

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## EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

| **Sample ID:** | **METHOD BLANK** | **SAMPLING BLANK** | | |
|---|---|---|---|---|
| **Jones ID:** | **011522-H1MB1** | **011522-H1SB1** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | |
| Benzene | ND | ND | 8 | µg/m3 |
| Bromobenzene | ND | ND | 8 | µg/m3 |
| Bromodichloromethane | ND | ND | 8 | µg/m3 |
| Bromoform | ND | ND | 8 | µg/m3 |
| n-Butylbenzene | ND | ND | 12 | µg/m3 |
| sec-Butylbenzene | ND | ND | 12 | µg/m3 |
| tert-Butylbenzene | ND | ND | 12 | µg/m3 |
| Carbon tetrachloride | ND | ND | 8 | µg/m3 |
| Chlorobenzene | ND | ND | 8 | µg/m3 |
| Chloroform | ND | ND | 8 | µg/m3 |
| 2-Chlorotoluene | ND | ND | 12 | µg/m3 |
| 4-Chlorotoluene | ND | ND | 12 | µg/m3 |
| Dibromochloromethane | ND | ND | 8 | µg/m3 |
| 1,2-Dibromo-3-chloropropane | ND | ND | 8 | µg/m3 |
| 1,2-Dibromoethane (EDB) | ND | ND | 8 | µg/m3 |
| Dibromomethane | ND | ND | 8 | µg/m3 |
| 1,2- Dichlorobenzene | ND | ND | 16 | µg/m3 |
| 1,3-Dichlorobenzene | ND | ND | 16 | µg/m3 |
| 1,4-Dichlorobenzene | ND | ND | 16 | µg/m3 |
| Dichlorodifluoromethane | ND | ND | 16 | µg/m3 |
| 1,1-Dichloroethane | ND | ND | 8 | µg/m3 |
| 1,2-Dichloroethane | ND | ND | 8 | µg/m3 |
| 1,1-Dichloroethene | ND | ND | 8 | µg/m3 |
| cis-1,2-Dichloroethene | ND | ND | 8 | µg/m3 |
| trans-1,2-Dichloroethene | ND | ND | 8 | µg/m3 |
| 1,2-Dichloropropane | ND | ND | 8 | µg/m3 |
| 1,3-Dichloropropane | ND | ND | 8 | µg/m3 |
| 2,2-Dichloropropane | ND | ND | 16 | µg/m3 |
| 1,1-Dichloropropene | ND | ND | 10 | µg/m3 |

# JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

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## EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

| **Sample ID:** | **METHOD BLANK** | **SAMPLING BLANK** | | |
|---|---|---|---|---|
| **Jones ID:** | **011522-H1MB1** | **011522-H1SB1** | **Reporting Limit** | **Units** |
| **Analytes:** | | | | |
| cis-1,3-Dichloropropene | ND | ND | 8 | µg/m3 |
| trans-1,3-Dichloropropene | ND | ND | 8 | µg/m3 |
| Ethylbenzene | ND | ND | 8 | µg/m3 |
| Freon 113 | ND | ND | 16 | µg/m3 |
| Hexachlorobutadiene | ND | ND | 24 | µg/m3 |
| Isopropylbenzene | ND | ND | 8 | µg/m3 |
| 4-Isopropyltoluene | ND | ND | 8 | µg/m3 |
| Methylene chloride | ND | ND | 8 | µg/m3 |
| Naphthalene | ND | ND | 40 | µg/m3 |
| n-Propylbenzene | ND | ND | 8 | µg/m3 |
| Styrene | ND | ND | 8 | µg/m3 |
| 1,1,1,2-Tetrachloroethane | ND | ND | 8 | µg/m3 |
| 1,1,2,2-Tetrachloroethane | ND | ND | 16 | µg/m3 |
| Tetrachloroethene | ND | ND | 8 | µg/m3 |
| Toluene | ND | ND | 8 | µg/m3 |
| 1,2,3-Trichlorobenzene | ND | ND | 16 | µg/m3 |
| 1,2,4-Trichlorobenzene | ND | ND | 16 | µg/m3 |
| 1,1,1-Trichloroethane | ND | ND | 8 | µg/m3 |
| 1,1,2-Trichloroethane | ND | ND | 8 | µg/m3 |
| Trichloroethene | ND | ND | 8 | µg/m3 |
| Trichlorofluoromethane | ND | ND | 16 | µg/m3 |
| 1,2,3-Trichloropropane | ND | ND | 8 | µg/m3 |
| 1,2,4-Trimethylbenzene | ND | ND | 8 | µg/m3 |
| 1,3,5-Trimethylbenzene | ND | ND | 8 | µg/m3 |
| Vinyl chloride | ND | ND | 8 | µg/m3 |
| m,p-Xylene | ND | ND | 16 | µg/m3 |
| o-Xylene | ND | ND | 8 | µg/m3 |
| MTBE | ND | ND | 40 | µg/m3 |
| Ethyl-tert-butylether | ND | ND | 40 | µg/m3 |
| Di-isopropylether | ND | ND | 40 | µg/m3 |
| tert-amylmethylether | ND | ND | 40 | µg/m3 |
| tert-Butylalcohol | ND | ND | 400 | µg/m3 |
| Gasoline Range Organics (C4-C12) | ND | ND | 2000 | µg/m3 |
| **Tracer:** | | | | |
| n-Pentane | ND | ND | 80 | µg/m3 |
| n-Hexane | ND | ND | 80 | µg/m3 |
| n-Heptane | ND | ND | 80 | µg/m3 |
| **Dilution Factor** | 1 | 1 | | |

| **Surrogate Recoveries:** | | | **QC Limits** |
|---|---|---|---|
| Dibromofluoromethane | 109% | 110% | 60 - 140 |
| Toluene-$d_8$ | 98% | 97% | 60 - 140 |
| 4-Bromofluorobenzene | 89% | 91% | 60 - 140 |
| **Batch ID:** | H1-011522-01 | H1-011522-01 | |

ND = Value below reporting limit

JONES
ENVIRONMENTAL, INC.

714-449-9937
562-646-1611

11007 FOREST PLACE
SANTA FE SPRINGS, CA 9067
WWW.JONESENV.COM

# JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

| | | | |
|---|---|---|---|
| **Client:** | Dudek | **Report date:** | 1/15/2022 |
| **Client Address:** | 605 Third St.<br>Encinitas, CA | **Jones Ref. No.:** | H-0112 |
| | | **Client Ref. No.:** | 13705 |
| **Attn:** | Susie Smith | **Date Sampled:** | 1/15/2022 |
| | | **Date Received:** | 1/15/2022 |
| **Project:** | Norco College CHP+K | **Date Analyzed:** | 1/15/2022 |
| **Project Address:** | 2001 Third Street<br>Norco, CA | **Physical State:** | Soil Gas |

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## EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

**Batch ID:** H1-011522-01

| **Jones ID:** | **011522-H1LCS1** | **011522-H1LCSD1** | | | **011522-H1CCV1** | |
|---|---|---|---|---|---|---|
| Parameter | LCS Recovery (%) | LCSD Recovery (%) | RPD | Acceptability Range (%) | CCV | Acceptability Range (%) |
| Vinyl chloride | 79% | 74% | 6.8% | 60 - 140 | 75%[1] | 80 - 120 |
| 1,1-Dichloroethene | 102% | 102% | 0.0% | 60 - 140 | 83% | 80 - 120 |
| Cis-1,2-Dichloroethene | 106% | 104% | 1.9% | 70 - 130 | 100% | 80 - 120 |
| 1,1,1-Trichloroethane | 102% | 97% | 4.8% | 70 - 130 | 92% | 80 - 120 |
| Benzene | 111% | 110% | 1.4% | 70 - 130 | 106% | 80 - 120 |
| Trichloroethene | 122% | 118% | 3.7% | 70 - 130 | 98% | 80 - 120 |
| Toluene | 117% | 108% | 8.2% | 70 - 130 | 106% | 80 - 120 |
| Tetrachloroethene | 125% | 122% | 2.3% | 70 - 130 | 105% | 80 - 120 |
| Chlorobenzene | 123% | 120% | 2.3% | 70 - 130 | 112% | 80 - 120 |
| Ethylbenzene | 106% | 99% | 6.6% | 70 - 130 | 98% | 80 - 120 |
| 1,2,4 Trimethylbenzene | 77% | 79% | 2.6% | 70 - 130 | 92% | 80 - 120 |
| Gasoline Range Organics (C4-C12) | 103% | 99% | 3.9% | 70 - 130 | 100% | 80 - 120 |
| **Surrogate Recovery:** | | | | | | |
| Dibromofluoromethane | 110% | 107% | | 60 - 140 | 108% | 60 - 140 |
| Toluene-$d_8$ | 98% | 95% | | 60 - 140 | 99% | 60 - 140 |
| 4-Bromofluorobenzene | 95% | 96% | | 60 - 140 | 100% | 60 - 140 |

[1] Recovery outside of acceptable limits. LCS/LCSD recoveries and RPD were within QC limits, therefore data was accepted.

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%

**JONES**
ENVIRONMENTAL, INC.

11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 449-9937
Fax (714) 449-9685
www.jonesenv.com

# Soil-Gas Chain-of-Custody Record

**Client**
**Dudek**
**Project Name**
**Norco College CHP+K**
**Project Address**
**2001 Third Street**
**Norco, CA**
**Email**
**Phone**
**Report To**
**Susie Smith**
**Sampler**
**Madison Jones**

**Date**
1/15/2022
**Client Project #**
13705

Purge Number: ☐ 1P ☒ 3P ☐ 7P ☐ 10P
Shut-In Test: [✓ Y] / N

**Report Options**
EDD ____
EDF* - 10% Surcharge____
*Global ID ____

*LAB USE ONLY*
**Jones Project #**
**H-0112**
Page 1 of 2
Sample Container:
GASTIGHT GLASS SYRINGE
If different than above, see Notes.

**Turn Around Requested**
☐ Immediate Attention
☐ Rush 24 Hours
☐ Rush 48 Hours
☐ Rush 72 Hours
☐ Normal
☑ Mobile Lab

**Tracer**
☒ n-pentane
☒ n-hexane
☒ n-heptane
☐ Isopropyl Alchohol
☐ 1,1-DFA
☐ ____

**Reporting Limits**
☒ Standard ☐ Low Level* ☐ MDL*
*surcharge for these limits
**Units** mg/m³

**Analysis Requested**

| Sample ID | Purge Number | Purge Volume (mL) | Date | Sample Collection Time | Sample Analysis Time | Laboratory Sample ID | Purge Rate (mL/min) | Pump Used | Magnehelic | Sample Matrix: Soil Gas (SG), Air (A), Material (M) | EPA 8260B (VOCs) | Gasoline Range Organics | | | Magnehelic Vacuum (In/H$_2$O) | Number of Containers | Notes & Special Instructions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SV1-5 | 3 | 1630 | 1/15/22 | 11:15 | 11:18 | H-0112-01 | 200 | JACKSON.1 | 118008 | SG | X | X | | | <2 | 1 | |
| SV1-15 | 3 | 1790 | 1/15/22 | 11:32 | 11:35 | H-0112-02 | 200 | JACKSON.2 | M100.010 | SG | X | X | | | <2 | 1 | |
| ~~SV8-5~~ SV6-5 AD 1/19 | 3 | 1630 | 1/15/22 | 11:50 | 11:55 | H-0112-03 | 200 | JACKSON.1 | M100.204 | SG | X | X | | | <2 | 1 | |
| ~~SV8-15~~ SV6-15 AD 1/19 | 3 | 1790 | 1/15/22 | 12:28 | 12:30 | H-0112-~~05~~-04 | 200 | JACKSON.2 | 118008 | SG | X | X | | | <2 | 1 | |
| SV3-5 | 3 | 1630 | 1/15/22 | 12:43 | 12:47 | H-0112-~~06~~-05 | 200 | JACKSON.1 | M100.010 | SG | X | X | | | <2 | 1 | |
| ~~SV3-15~~ SV3-10 AD 1/19 | 3 | 1790 | 1/15/22 | 12:55 | 13:05 | H-0112-~~07~~ 06 | 200 | JACKSON.2 | M100.204 | SG | X | X | | | <2 | 1 | |
| SV7-5 | 3 | 1630 | 1/15/22 | 13:31 | 13:41 | H-0112-~~08~~ 07 | 200 | JACKSON.1 | 118008 | SG | X | X | | | <2 | 1 | |
| SV7-15 | 3 | 1790 | 1/15/22 | 13:55 | 14:02 | H-0112-~~09~~ 08 | 200 | JACKSON.2 | M100.010 | SG | X | X | | | <2 | 1 | |
| SV4-5 | 3 | 1630 | 1/15/22 | 14:15 | 14:18 | H-0112-~~10~~09 | 200 | JACKSON.1 | M100.204 | SG | X | X | | | <2 | 1 | |
| SV4-5REP | 3 | - | 1/15/22 | 14:20 | 14:34 | H-0112-~~11~~10 | 200 | - | M100.204 | SG | X | X | | | <2 | 1 | |

**Representative Signature** Hugh McMa
**Printed Name** Hugh McManus
**Company** Dudek
**Date** 1/15/2022 **Time** 16:15

**Laboratory Signature** Madison N. Jones
**Printed Name** Madison Jones
**Company** JONES ENVIRONMENTAL, INC.
**Date** 1/15/2022 **Time** 16:15

10 Total Number of Containers

**Representative Signature**
**Printed Name**
**Company**
**Date** **Time**

**Laboratory Signature**
**Printed Name**
**Company**
**Date** **Time**

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

**JONES**
ENVIRONMENTAL, INC.

11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 449-9937
Fax (714) 449-9685
www.jonesenv.com

# Soil-Gas Chain-of-Custody Record

**Client**
**Dudek**

**Project Name**
**Norco College CHP+K**

**Project Address**
**2001 Third Street**

**Norco, CA**

**Email**

**Phone**

**Report To** **Susie Smith**

**Sampler** **Madison Jones**

**Date** 1/15/2022

**Client Project #** 13705

Purge Number: ☐ 1P ☒ 3P ☐ 7P ☐ 10P

Shut-In Test: [✓ Y] / N

**Report Options**
EDD ____
EDF* - 10% Surcharge____
*Global ID ____________

*LAB USE ONLY*
**Jones Project #**
**H-0112**

Page 2 of 2

Sample Container:
GASTIGHT GLASS SYRINGE
If different than above, see Notes.

**Turn Around Requested**
- ☐ Immediate Attention
- ☐ Rush 24 Hours
- ☐ Rush 48 Hours
- ☐ Rush 72 Hours
- ☐ Normal
- ☒ Mobile Lab

**Tracer**
- ☒ n-pentane
- ☒ n-hexane
- ☒ n-heptane
- ☐ Isopropyl Alchohol
- ☐ 1,1-DFA
- ☐ ____________

**Reporting Limits**
☒ Standard ☐ Low Level* ☐ MDL*
*surcharge for these limits

**Units** µg/m3

**Analysis Requested**

| Sample ID | Purge Number | Purge Volume (mL) | Date | Sample Collection Time | Sample Analysis Time | Laboratory Sample ID | Purge Rate (mL/min) | Pump Used | Magnehelic | Sample Matrix: Soil Gas (SG), Air (A), Material (M) | EPA 8260B (VOCs) | Gasoline Range Organics | | | Magnehelic Vacuum (In/H2O) | Number of Containers | Notes & Special Instructions |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SV4-15 | 3 | 1790 | 1/15/22 | 14:42 | 14:51 | H-0112-~~12~~ 11 | 200 | JACKSON.2 | 118008 | SG | X | X | | | <2 | 1 | |
| SV5-5 | 3 | 1630 | 1/15/22 | 15:06 | 15:10 | H-0112-~~13~~ 12 | 200 | JACKSON.1 | M100.010 | SG | X | X | | | <2 | 1 | |
| SV5-15 | 3 | 1790 | 1/15/22 | 15:18 | 15:27 | H-0112-~~14~~ 13 | 200 | JACKSON.2 | M100.204 | SG | X | X | | | <2 | 1 | |
| SV2-5 | 3 | 1630 | 1/15/22 | 15:41 | 15:44 | H-0112-~~15~~ 14 | 200 | JACKSON.1 | 118008 | SG | X | X | | | <2 | 1 | |
| SV2-10 | 3 | 1710 | 1/15/22 | 15:48 | 16:02 | H-0112-~~16~~ 15 | 200 | JACKSON.2 | M100.010 | SG | X | X | | | <2 | 1 | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

**Representative Signature**
**Printed Name** Hugh McManus
**Company** Dudek
**Date** 1/15/2022 **Time** 16:15

**Laboratory Signature**
**Printed Name** Madison Jones
**Company** JONES ENVIRONMENTAL, INC.
**Date** 1/15/2022 **Time** 16:15

5 Total Number of Containers

**Representative Signature**
**Printed Name**
**Company**
**Date** **Time**

**Laboratory Signature**
**Printed Name**
**Company**
**Date** **Time**

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

# Appendix D

## Noise Measurement Data Sheets

# FIELD NOISE MEASUREMENT DATA

PROJECT NORCO COLLEGE KINESIOLOGY BUILDING PROJECT # 13705
SITE ID ST 1
SITE ADDRESS
OBSERVER(S) DAVID ORTEGA
START DATE 10/12/2021 END DATE 10/12/2021
START TIME 10:12 AM END TIME 10:27 AM

METEOROLOGICAL CONDITIONS
TEMP 71° F HUMIDITY 12 % R.H. WIND [✓ CALM] LIGHT MODERATE
WINDSPD <1 MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY [✓ SUNNY] [✓ CLEAR] OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO II TYPE 1 [✓ 2] SERIAL # 1200
CALIBRATOR RION NC-74 SERIAL # 34678576
CALIBRATION CHECK PRE MEASUREMENT 94 dBA SPL POST MEASUREMENT 94 dBA SPL WINDSCRN YES

SETTINGS [✓ A-WTD] [✓ SLOW] FAST FRONTAL RANDOM ANSI OTHER

| REC. # | BEGIN | END | Leq | Lmax | Lmin | L90 | L50 | L10 | OTHER (SPECIFY METRIC |
|---|---|---|---|---|---|---|---|---|---|
| 1-17 | 10:12 AM | 10:27 AM | 48.4 | 67.8 | 35.8 | 38.5 | 40.9 | 44.2 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

COMMENTS
Measurement taken approximately 18-feet from residential CMU wall. Many aircraft fly-overs - clearly audible

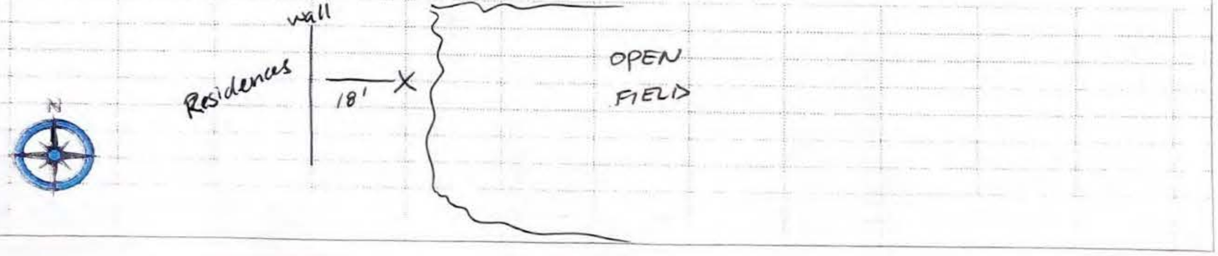
SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE TRAFFIC [✓ AIRCRAFT] RAIL INDUSTRIAL OTHER:
ROADWAY TYPE DIST. TO RDWY C/L OR EOP
TRAFFIC COUNT DURATION MIN SPEED MIN SPEED

| COUNT 1 (OR RDWY 1) DIRECTION | NB/EB | SB/WB | NB/EB | SB/WB | IF COUNTING BOTH DIRECTIONS AS ONE CHECK HERE | COUNT 2 (OR RDWY 2) NB/EB | SB/WB | NB/EB | SB/WB |
|---|---|---|---|---|---|---|---|---|---|
| AUTOS | | | | | | | | | |
| MED TRKS | | | | | | | | | |
| HVY TRKS | | | | | | | | | |
| BUSES | | | | | | | | | |
| MOTRCLS | | | | | | | | | |

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): [✓ DIST. AIRCRAFT] RUSTLING LEAVES [✓ DIST. BARKING DOGS] [✓ BIRDS] DIST. INDUSTRIAL DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: HVAC from nearby residence audible. (At MANY least 9 separate) aircrafts flying in vicinity. Fly-over @ 10:14-10:15 = 48 dBA Leq. W/out aircraft, Leq <40 dBA (~39) Fly-over @ 10:20 AM = 60.2 dBA Leq. All types of aircraft flying overhead

DESCRIPTION / SKETCH
TERRAIN HARD [✓ SOFT] MIXED FLAT OTHER:
PHOTOS YES
OTHER COMMENTS / SKETCH



# FIELD NOISE MEASUREMENT DATA

PROJECT NORCO COLLEGE KINESIOLOGY BUILDING PROJECT # 13705
SITE ID ST2
SITE ADDRESS
OBSERVER(S) DAVID ORTEGA
START DATE 10/12/2021 END DATE 10/12/2021
START TIME 10:48 AM END TIME 11:03AM

METEOROLOGICAL CONDITIONS
TEMP 71° F HUMIDITY 12 % R.H. WIND [✓ CALM] LIGHT MODERATE
WINDSPD <1 MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY [✓ SUNNY] [✓ CLEAR] OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO II TYPE 1 [✓ 2] SERIAL # 1200
CALIBRATOR RION NC-74 SERIAL # 34678576
CALIBRATION CHECK PRE-MEASUREMENT 94 dBA SPL POST-MEASUREMENT 94 dBA SPL WINDSCRN YES

SETTINGS [✓ A-WTD] [✓ SLOW] FAST FRONTAL RANDOM ANSI OTHER

| REC. # | BEGIN | END | Leq | Lmax | Lmin | L90 | L50 | L10 | OTHER (SPECIFY METRIC |
|---|---|---|---|---|---|---|---|---|---|
| 18-34 | 10:48AM | 11:03Am | 49.1 | 67.1 | 43.3 | 44.6 | 45.8 | 48.8 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

COMMENTS
Measurement taken adjacent to Applied Technology building, on lawn. Students/staff conversations audible throughout measurement. Leq constant around 44.5 dBA.

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE DIST. TO RDWY C/L OR EOP:
TRAFFIC COUNT DURATION MIN SPEED

| COUNT 1 (OR RDWY 1) | NB/EB | SB/WB | NB/EB | SB/WB |
|---|---|---|---|---|
| DIRECTION | | | | |
| AUTOS | | | | |
| MED TRKS | | | | |
| HVY TRKS | | | | |
| BUSES | | | | |
| MOTRCLS | | | | |

IF COUNTING BOTH DIRECTIONS AS ONE CHECK HERE

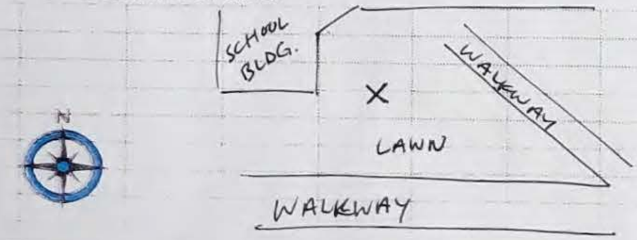
MIN SPEED

| COUNT 2 (OR RDWY 2) | NB/EB | SB/WB | NB/EB | SB/WB |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): [✓ DIST. AIRCRAFT] RUSTLING LEAVES DIST. BARKING DOGS [✓ BIRDS] DIST. INDUSTRIAL
DIST. KIDS PLAYING [✓ DIST. CONVRSTNS / YELLING] DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: HVAC from adjacent/nearby buildings audible. Aircraft fly-overs are audible. Fly-over @ 10:52 = 60 dBA Leq.

DESCRIPTION / SKETCH
TERRAIN [✓ HARD] SOFT MIXED FLAT OTHER:
PHOTOS YES
OTHER COMMENTS / SKETCH



# FIELD NOISE MEASUREMENT DATA

PROJECT NORCO COLLEGE KINESIOLOGY BUILDING PROJECT # 13705
SITE ID ST3
SITE ADDRESS
OBSERVER(S) DAVID ORTEGA
START DATE 10/12/2021 END DATE 10/12/2021
START TIME 11:18 AM END TIME 11:33 AM

METEOROLOGICAL CONDITIONS
TEMP 71° F HUMIDITY 12 % R.H. WIND [✓ CALM] LIGHT MODERATE
WINDSPD <1 MPH DIR N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY [✓ SUNNY] [✓ CLEAR] OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT Piccolo II TYPE 1 [✓ 2] SERIAL # 1200
CALIBRATOR Rion NC-74 SERIAL # 34678576
CALIBRATION CHECK PRE-MEASUREMENT 94 dBA SPL POST-MEASUREMENT 94 dBA SPL WINDSCRN YES

SETTINGS [✓ A-WTD] [✓ SLOW] FAST FRONTAL RANDOM ANSI OTHER

| REC. # | BEGIN | END | Leq | Lmax | Lmin | L90 | L50 | L10 | OTHER (SPECIFY METRIC |
|---|---|---|---|---|---|---|---|---|---|
| 35-51 | 11:18AM | 11:33AM | 53.2 | 66.8 | 44.5 | 47.7 | 50.4 | 55.1 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

COMMENTS
Primary noise source is traffic along Third St. Measurement taken adjacent to school building, in front of enclosed garbage area. Car horns, doors, alarms audible during measurement.

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE [✓ TRAFFIC] AIRCRAFT RAIL INDUSTRIAL [✓ OTHER] students yelling/talking in Parking Lot
ROADWAY TYPE DIST. TO RDWY C/L OR EOP
TRAFFIC COUNT DURATION ____ MIN SPEED ____ ____ MIN SPEED

COUNT 1 (OR RDWY 1)

| DIRECTION | NB/EB | SB/WB | NB/EB | SB/WB |
|---|---|---|---|---|
| ~~AUTOS~~ | | | | |
| ~~MED TRKS~~ | | | | |
| ~~HVY TRKS~~ | | | | |
| ~~BUSES~~ | | | | |
| ~~MOTRCLS~~ | | | | |

IF COUNTING BOTH DIRECTIONS AS ONE CHECK HERE ____

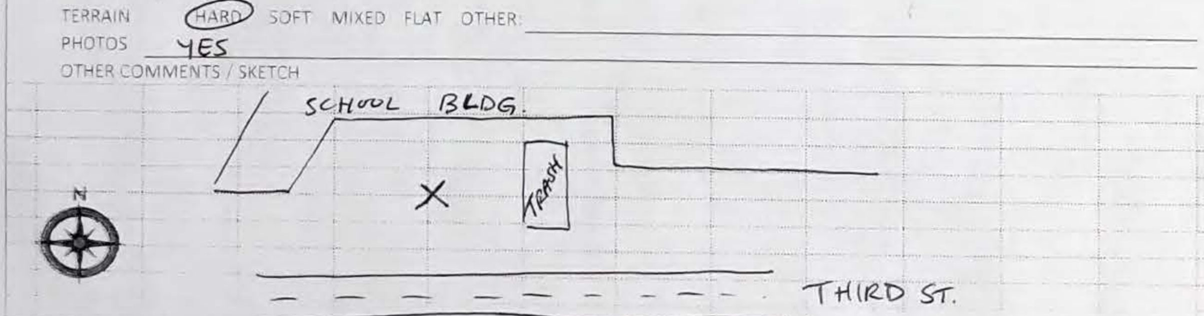
COUNT 2 (OR RDWY 2)

| NB/EB | SB/WB | NB/EB | SB/WB |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY

OTHER NOISE SOURCES (BACKGROUND): [✓ DIST. AIRCRAFT] RUSTLING LEAVES DIST. BARKING DOGS [✓ BIRDS] DIST. INDUSTRIAL
DIST. KIDS PLAYING [✓ DIST. CONVRSTNS / YELLING] DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: PA System @ 11:20-11:21 AM = 56-58 dBA Leq. Students exiting school building from nearby exit, beginning @ 11:22 AM. Fly-over @11:26AM = 58 dBA Leq. PA Bell @ 11:30 AM.

DESCRIPTION / SKETCH
TERRAIN [✓ HARD] SOFT MIXED FLAT OTHER:
PHOTOS YES
OTHER COMMENTS / SKETCH



DUDEK

# FIELD NOISE MEASUREMENT DATA

PROJECT NORCO COLLEGE KINESIOLOGY BUILDING PROJECT # 13705
SITE ID ST 4
SITE ADDRESS
OBSERVER(S) DAVID ORTEGA
START DATE 10/12/2021 END DATE 10/12/2021
START TIME 11:50 AM END TIME 12:05 PM

METEOROLOGICAL CONDITIONS
TEMP 71° F HUMIDITY 12 % R.H. WIND [✓ CALM] LIGHT MODERATE
WINDSPD <1 MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY [✓ SUNNY] [✓ CLEAR] OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO II TYPE 1 [✓ 2] SERIAL # 1200
CALIBRATOR RION NC-74 SERIAL # 34628576
CALIBRATION CHECK PRE-MEASUREMENT 94 dBA SPL POST-MEASUREMENT 94 dBA SPL WINDSCRN YES

SETTINGS [✓ A-WTD] [✓ SLOW] FAST FRONTAL RANDOM ANSI OTHER

| REC. # | BEGIN | END | Leq | Lmax | Lmin | L90 | L50 | L10 | OTHER (SPECIFY METRIC |
|---|---|---|---|---|---|---|---|---|---|
| 52-69 | 11:50 AM | 12:05 PM | 45.7 | 56.7 | 37 | 40.9 | 43.6 | 47.4 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

COMMENTS
BIRDS, AIRCRAFT, & TRAFFIC ON THIRD ST. WERE DOMINANT SOURCES

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE [✓ TRAFFIC] [✓ AIRCRAFT] RAIL INDUSTRIAL [✓ OTHER] BIRDS
ROADWAY TYPE
DIST. TO RDWY C/L OR EOP:
TRAFFIC COUNT DURATION 15 MIN SPEED 20

COUNT 1 (OR RDWY 1)

| DIRECTION | NB/EB | SB/WB | NB/EB | SB/WB |
|---|---|---|---|---|
| AUTOS | 64 | | | |
| MED TRKS | 3 | | | |
| HVY TRKS | 0 | | | |
| BUSES | 0 | | | |
| MOTRCLS | 0 | | | |

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ☒

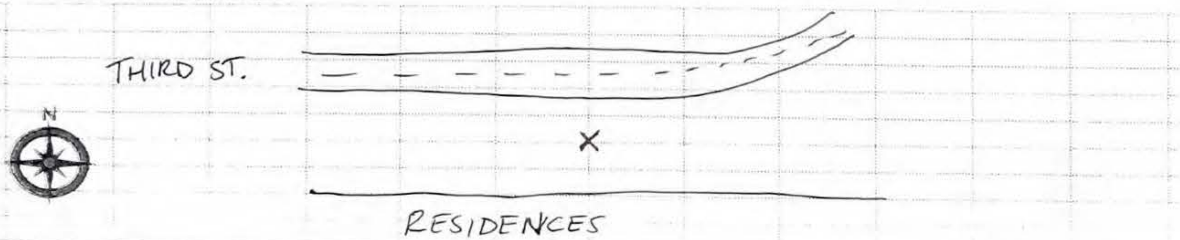
COUNT 2 (OR RDWY 2) MIN SPEED

| DIRECTION | NB/EB | SB/WB | NB/EB | SB/WB |
|---|---|---|---|---|
| AUTOS | | | | |
| MED TRKS | | | | |
| HVY TRKS | | | | |
| BUSES | | | | |
| MOTRCLS | | | | |

SPEEDS ESTIMATED BY: RADAR / [✓ DRIVING THE PACE]
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): [✓ DIST. AIRCRAFT] RUSTLING LEAVES [✓ DIST. BARKING DOGS] [✓ BIRDS] DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: Dirt Bike Riding as soon as measurement began. Nearby birds continuously chirping. Many aircrafts in the vicinity

DESCRIPTION / SKETCH
TERRAIN HARD [✓ SOFT] MIXED FLAT OTHER:
PHOTOS YES
OTHER COMMENTS / SKETCH



# Construction Noise Model Input / Output

# Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 9/23/2024
Case Description: Norco College Kinesiology Project - Demolition

---- Receptor #1 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the West | Residential | 65 | 60 | 55 |

| | | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| Description | | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Dozer | | No | 40 | | 81.7 | 455 | 5 |
| Concrete Saw | | No | 20 | | 89.6 | 465 | 5 |
| Backhoe | | No | 40 | | 77.6 | 475 | 5 |
| Front End Loader | | No | 40 | | 79.1 | 485 | 5 |
| Tractor | | No | 40 | 84 | | 495 | 5 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Dozer | | 57.5 | 53.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Saw | | 65.2 | 58.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 53 | 49 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 54.4 | 50.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 59.1 | 55.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 65.2 | 61.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the South | Residential | 65 | 60 | 55 |

| | | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| Description | | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Dozer | | No | 40 | | 81.7 | 800 | 0 |
| Concrete Saw | | No | 20 | | 89.6 | 810 | 0 |
| Backhoe | | No | 40 | | 77.6 | 820 | 0 |
| Front End Loader | | No | 40 | | 79.1 | 830 | 0 |
| Tractor | | No | 40 | 84 | | 840 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Dozer | | 57.6 | 53.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Saw | | 65.4 | 58.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 53.3 | 49.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 54.7 | 50.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 59.5 | 55.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 65.4 | 61.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| JFK Middle School | Residential | 65 | 60 | 55 |

| | | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| Description | | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Dozer | | No | 40 | | 81.7 | 1500 | 0 |
| Concrete Saw | | No | 20 | | 89.6 | 1510 | 0 |
| Backhoe | | No | 40 | | 77.6 | 1520 | 0 |
| Front End Loader | | No | 40 | | 79.1 | 1530 | 0 |
| Tractor | | No | 40 | 84 | | 1540 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Dozer | | 52.1 | 48.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Saw | | 60 | 53 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 47.9 | 43.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 49.4 | 45.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 54.2 | 50.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | 60 | 56.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Campus Quad | Residential | 65 | 60 | 55 |

Equipment

| Description | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Dozer | No | 40 | | 81.7 | 90 | 0 |
| Concrete Saw | No | 20 | | 89.6 | 100 | 0 |
| Backhoe | No | 40 | | 77.6 | 110 | 0 |
| Front End Loader | No | 40 | | 79.1 | 120 | 0 |
| Tractor | No | 40 | 84 | | 130 | 0 |

Results

| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Dozer | | 76.6 | 72.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Saw | | 83.6 | 76.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 70.7 | 66.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 71.5 | 67.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 75.7 | 71.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 83.6 | 79.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 9/23/2024
Case Description: Norco College Kinesiology Project - Site Prep

---- Receptor #1 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the West | Residential | 65 | 60 | 55 |

| | | | Equipment | | | |
|---|---|---|---|---|---|---|
| Description | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Grader | No | 40 | 85 | | 455 | 5 |
| Front End Loader | No | 40 | | 79.1 | 465 | 5 |
| Scraper | No | 40 | | 83.6 | 475 | 5 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Grader | | 60.8 | 56.8 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 54.7 | 50.8 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Scraper | | 59 | 55 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 60.8 | 59.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the South | Residential | 65 | 60 | 55 |

| | | | Equipment | | | |
|---|---|---|---|---|---|---|
| Description | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Grader | No | 40 | 85 | | 800 | 0 |
| Front End Loader | No | 40 | | 79.1 | 810 | 0 |
| Scraper | No | 40 | | 83.6 | 820 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Grader | | 60.9 | 56.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 54.9 | 50.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Scraper | | 59.3 | 55.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 60.9 | 59.8 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| JFK Middle School | Residential | 65 | 60 | 55 |

| | | | Equipment | | | |
|---|---|---|---|---|---|---|
| Description | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Grader | No | 40 | 85 | | 1500 | 0 |
| Front End Loader | No | 40 | | 79.1 | 1510 | 0 |
| Scraper | No | 40 | | 83.6 | 1520 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Grader | | 55.5 | 51.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 49.5 | 45.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Scraper | | 53.9 | 49.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 55.5 | 54.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Campus Quad | Residential | 65 | 60 | 55 |

| | | Equipment | | | |
|---|---|---|---|---|---|
| | | Spec | Actual | Receptor | Estimated |
| Impact | | Lmax | Lmax | Distance | Shielding |

| Description | Device | Usage(%) | (dBA) | (dBA) | (feet) | (dBA) |
|---|---|---|---|---|---|---|
| Grader | No | 40 | 85 |  | 90 | 0 |
| Front End Loader | No | 40 |  | 79.1 | 100 | 0 |
| Scraper | No | 40 |  | 83.6 | 110 | 0 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  | Results |  |  |  |  |  |  |  |  |  |  |  |
|  | Calculated (dBA) |  |  | Noise Limits (dBA) |  |  |  |  |  | Noise Limit Exceedance (dBA) |  |  |  |  |
|  |  |  | Day |  | Evening |  | Night |  | Day |  | Evening |  | Night |  |
| Equipment | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Grader | 79.9 | 75.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | 73.1 | 69.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Scraper | 76.7 | 72.8 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total | 79.9 | 78.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 9/23/2024

Case Description: Norco College Kinesiology Project - Grading

---- Receptor #1 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the West | Residential | 65 | 60 | 55 |

| | | | Equipment | | | |
|---|---|---|---|---|---|---|
| | | | Spec | Actual | Receptor | Estimated |
| | Impact | | Lmax | Lmax | Distance | Shielding |
| Description | Device | Usage(%) | (dBA) | (dBA) | (feet) | (dBA) |
| Dozer | No | 40 | | 81.7 | 455 | 5 |
| Backhoe | No | 40 | | 77.6 | 465 | 5 |
| Front End Loader | No | 40 | | 79.1 | 475 | 5 |
| Grader | No | 40 | 85 | | 485 | 5 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Dozer | | 57.5 | 53.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 53.2 | 49.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 54.6 | 50.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Grader | | 60.3 | 56.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 60.3 | 59.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the South | Residential | 65 | 60 | 55 |

| | | | Equipment | | | |
|---|---|---|---|---|---|---|
| | | | Spec | Actual | Receptor | Estimated |
| | Impact | | Lmax | Lmax | Distance | Shielding |
| Description | Device | Usage(%) | (dBA) | (dBA) | (feet) | (dBA) |
| Dozer | No | 40 | | 81.7 | 800 | 0 |
| Backhoe | No | 40 | | 77.6 | 810 | 0 |
| Front End Loader | No | 40 | | 79.1 | 820 | 0 |
| Grader | No | 40 | 85 | | 830 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Dozer | | 57.6 | 53.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 53.4 | 49.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 54.8 | 50.8 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Grader | | 60.6 | 56.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 60.6 | 59.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| JFK Middle School | Residential | 65 | 60 | 55 |

| | | | Equipment | | | |
|---|---|---|---|---|---|---|
| | | | Spec | Actual | Receptor | Estimated |
| | Impact | | Lmax | Lmax | Distance | Shielding |
| Description | Device | Usage(%) | (dBA) | (dBA) | (feet) | (dBA) |
| Dozer | No | 40 | | 81.7 | 1500 | 0 |
| Backhoe | No | 40 | | 77.6 | 1510 | 0 |
| Front End Loader | No | 40 | | 79.1 | 1520 | 0 |
| Grader | No | 40 | 85 | | 1530 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Dozer | | 52.1 | 48.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 48 | 44 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 49.5 | 45.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Grader | | 55.3 | 51.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 55.3 | 54.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |

| | | | | |
|---|---|---|---|---|
| Campus Quad | Residential | 65 | 60 | 55 |

| Description | Impact Device | Usage(%) | Equipment Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Dozer | No | 40 | | 81.7 | 90 | 0 |
| Backhoe | No | 40 | | 77.6 | 100 | 0 |
| Front End Loader | No | 40 | | 79.1 | 110 | 0 |
| Grader | No | 40 | 85 | | 120 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Dozer | | 76.6 | 72.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | | 71.5 | 67.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 72.3 | 68.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Grader | | 77.4 | 73.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 77.4 | 77.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 9/23/2024

Case Description: Norco College Kinesiology Project - Building Construction

---- Receptor #1 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the West | Residential | 65 | 60 | 55 |

| | | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| Description | | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Man Lift | | No | 20 | | 74.7 | 455 | 5 |
| Man Lift | | No | 20 | | 74.7 | 465 | 5 |
| Crane | | No | 16 | | 80.6 | 475 | 5 |
| Front End Loader | | No | 40 | | 79.1 | 485 | 5 |
| Welder / Torch | | No | 40 | | 74 | 495 | 5 |
| Welder / Torch | | No | 40 | | 74 | 475 | 5 |
| Welder / Torch | | No | 40 | | 74 | 505 | 5 |
| Generator | | No | 50 | | 80.6 | 495 | 5 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Man Lift | | 50.5 | 43.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Man Lift | | 50.3 | 43.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Crane | | 56 | 48 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 54.4 | 50.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 49.1 | 45.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 49.4 | 45.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 48.9 | 44.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Generator | | 55.7 | 52.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 56 | 57 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the South | Residential | 65 | 60 | 55 |

| | | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| Description | | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Man Lift | | No | 20 | | 74.7 | 800 | 0 |
| Man Lift | | No | 20 | | 74.7 | 810 | 0 |
| Crane | | No | 16 | | 80.6 | 820 | 0 |
| Front End Loader | | No | 40 | | 79.1 | 830 | 0 |
| Welder / Torch | | No | 40 | | 74 | 840 | 0 |
| Welder / Torch | | No | 40 | | 74 | 820 | 0 |
| Welder / Torch | | No | 40 | | 74 | 840 | 0 |
| Generator | | No | 50 | | 80.6 | 830 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Man Lift | | 50.6 | 43.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Man Lift | | 50.5 | 43.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Crane | | 56.3 | 48.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 54.7 | 50.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 49.5 | 45.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 49.7 | 45.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 49.5 | 45.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Generator | | 56.2 | 53.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 56.3 | 57.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| JFK Middle School | Residential | 65 | 60 | 55 |

| | | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| Description | | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Man Lift | | No | 20 | | 74.7 | 1500 | 0 |
| Man Lift | | No | 20 | | 74.7 | 1510 | 0 |
| Crane | | No | 16 | | 80.6 | 1520 | 0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Front End Loader | No | 40 | | 79.1 | 1530 | 0 |
| Welder / Torch | No | 40 | | 74 | 1540 | 0 |
| Welder / Torch | No | 40 | | 74 | 1520 | 0 |
| Welder / Torch | No | 40 | | 74 | 1540 | 0 |
| Generator | No | 50 | | 80.6 | 1530 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Man Lift | | 45.2 | 38.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Man Lift | | 45.1 | 38.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Crane | | 50.9 | 42.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 49.4 | 45.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 44.2 | 40.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 44.3 | 40.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 44.2 | 40.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Generator | | 50.9 | 47.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 50.9 | 52.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Campus Quad | Residential | 65 | 60 | 55 |

| Description | Impact Device | Usage(%) | Equipment Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Man Lift | No | 20 | | 74.7 | 90 | 0 |
| Man Lift | No | 20 | | 74.7 | 100 | 0 |
| Crane | No | 16 | | 80.6 | 110 | 0 |
| Front End Loader | No | 40 | | 79.1 | 120 | 0 |
| Welder / Torch | No | 40 | | 74 | 130 | 0 |
| Welder / Torch | No | 40 | | 74 | 110 | 0 |
| Welder / Torch | No | 40 | | 74 | 120 | 0 |
| Generator | No | 50 | | 80.6 | 100 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Man Lift | | 69.6 | 62.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Man Lift | | 68.7 | 61.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Crane | | 73.7 | 65.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | | 71.5 | 67.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 65.7 | 61.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 67.2 | 63.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Welder / Torch | | 66.4 | 62.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Generator | | 74.6 | 71.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 74.6 | 75.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 9/23/2024
Case Description: Norco College Kinesiology Project - Paving

---- Receptor #1 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the West | Residential | 65 | 60 | 55 |

| Description | Impact Device | Usage(%) | Equipment Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Paver | No | 50 | | 77.2 | 455 | 5 |
| Concrete Mixer Truck | No | 40 | | 78.8 | 465 | 5 |
| Roller | No | 20 | | 80 | 475 | 5 |
| Roller | No | 20 | | 80 | 485 | 5 |
| Concrete Pump Truck | No | 20 | | 81.4 | 495 | 5 |
| Tractor | No | 40 | 84 | | 505 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Paver | | 53 | 50 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Mixer Truck | | 54.4 | 50.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | | 55.4 | 48.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | | 55.3 | 48.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Pump Truck | | 56.5 | 49.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 63.9 | 59.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 63.9 | 61.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the South | Residential | 65 | 60 | 55 |

| Description | Impact Device | Usage(%) | Equipment Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Paver | No | 50 | | 77.2 | 800 | 0 |
| Concrete Mixer Truck | No | 40 | | 78.8 | 810 | 0 |
| Roller | No | 20 | | 80 | 820 | 0 |
| Roller | No | 20 | | 80 | 830 | 0 |
| Concrete Pump Truck | No | 20 | | 81.4 | 840 | 0 |
| Tractor | No | 40 | 84 | | 850 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Paver | | 53.1 | 50.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Mixer Truck | | 54.6 | 50.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | | 55.7 | 48.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | | 55.6 | 48.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Pump Truck | | 56.9 | 49.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 59.4 | 55.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 59.4 | 59.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| JFK Middle School | Residential | 65 | 60 | 55 |

| Description | Impact Device | Usage(%) | Equipment Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Paver | No | 50 | | 77.2 | 1500 | 0 |
| Concrete Mixer Truck | No | 40 | | 78.8 | 1510 | 0 |
| Roller | No | 20 | | 80 | 1520 | 0 |
| Roller | No | 20 | | 80 | 1530 | 0 |
| Concrete Pump Truck | No | 20 | | 81.4 | 1540 | 0 |
| Tractor | No | 40 | 84 | | 1550 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Paver | | 47.7 | 44.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Mixer Truck | | 49.2 | 45.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | | 50.3 | 43.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | | 50.3 | 43.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Pump Truck | | 51.6 | 44.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 54.2 | 50.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 54.2 | 53.8 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Campus Quad | Residential | 65 | 60 | 55 |

| Description | Impact Device | Usage(%) | Equipment Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Paver | No | 50 | | 77.2 | 90 | 0 |
| Concrete Mixer Truck | No | 40 | | 78.8 | 100 | 0 |
| Roller | No | 20 | | 80 | 110 | 0 |
| Roller | No | 20 | | 80 | 120 | 0 |
| Concrete Pump Truck | No | 20 | | 81.4 | 130 | 0 |
| Tractor | No | 40 | 84 | | 140 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Paver | | 72.1 | 69.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Mixer Truck | | 72.8 | 68.8 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | | 73.2 | 66.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | | 72.4 | 65.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Pump Truck | | 73.1 | 66.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Tractor | | 75.1 | 71.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 75.1 | 76 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 9/23/2024
Case Description: Norco College Kinesiology Project - Architectural Coating

---- Receptor #1 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the West | Residential | 65 | 60 | 55 |

| | | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| Description | | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Compressor (air) | | No | 40 | | 77.7 | 455 | 5 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Compressor (air) | | 53.5 | 49.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 53.5 | 49.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Residences to the South | Residential | 65 | 60 | 55 |

| | | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| Description | | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Compressor (air) | | No | 40 | | 77.7 | 800 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Compressor (air) | | 53.6 | 49.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 53.6 | 49.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| JFK Middle School | Residential | 65 | 60 | 55 |

| | | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| Description | | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Compressor (air) | | No | 40 | | 77.7 | 1500 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Compressor (air) | | 48.1 | 44.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 48.1 | 44.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

| | | Baselines (dBA) | | |
|---|---|---|---|---|
| Description | Land Use | Daytime | Evening | Night |
| Campus Quad | Residential | 65 | 60 | 55 |

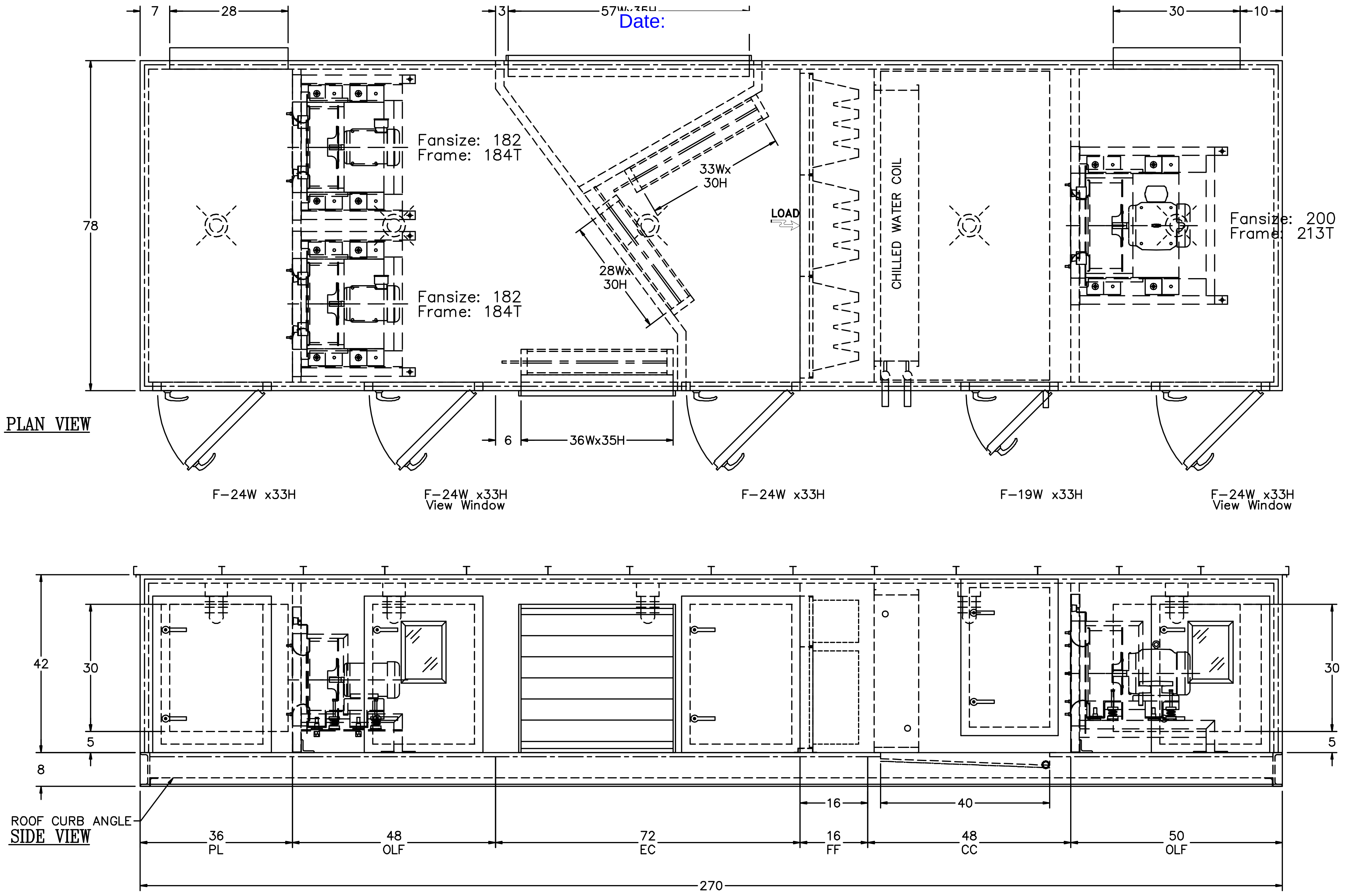
| | | | | Equipment | | | |
|---|---|---|---|---|---|---|---|
| Description | | Impact Device | Usage(%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
| Compressor (air) | | No | 40 | | 77.7 | 90 | 0 |

| | | | | Results | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Calculated (dBA) | | | Noise Limits (dBA) | | | | | | Noise Limit Exceedance (dBA) | | | | |
| | | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | | *Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Compressor (air) | | 72.6 | 68.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | Total | 72.6 | 68.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Calculated Lmax is the Loudest value.

# Mechanical Noise Calculations

Norco College



PRELIMINARY MECHANICAL DRAWING
NOT FOR CONSTRUCTION

LEGEND:
OSA = Outside Air
RA = Return Air
NS = Near Side
HS = High Side
SCAV= Scavenger Air
SA = Supply Air
EA = Exhaust Air
FS = Far Side
LS = Low Side

SECTIONS:
AB = Air Blender
CC = Cooling Coil
CU = Condensing Unit
DE = Direct Evaporative
DF = DWDI Fan
DX = DX Coil
EC = Economizer
FF = Final Filter
FU = Furnace
HC = Heating Coil
IE = Indirect Evaporative
OLF = OptilineHE Fan
MB = Mixing Box
MS = Moisture Separator
MZ = Multizone
PF = Plenum Fan
PFF = Pre/Final Filter
PL = Plenum
PR = Pre-Filter
SC = Steam Coil
ST = Sound Trap
VF = Vee Filter

NOTES:
1. All dimensions are in inches unless otherwise specified.
2. Opening dimension tolerances are ± 0.50, all other cabinet dimension tolerances are ± 1.00.
3. Lifting lug locations on mechanical drawings are for representation only. Actual lifting location will vary depending on Energy Labs Engineering review.

| NO. | DATE | REVISION | DWN | APP |
|---|---|---|---|---|

PROJECT ENGINEER: JH
DESIGN ENGINEER:
DESCRIPTION: MECHANICAL DRAWING
DRAWING NAME: SU-AHU-104.dwg
JOB NUMBER: 0

Energy Labs
A VERTIV Company
1695 CACTUS ROAD, SAN DIEGO, CA 92154
(619) 671-0100

(1) ONE EACH
CFM: 6810/6810
MODEL: C4278-FC-L

JOB NAME: Norco College
UNIT TAG: AHU-104

# Cabinet Pressure Drop Report

Date:

| Section Type | Calculated PD | PD Override | Comments | Total |
|---|---|---|---|---|
| Plenum-1 (Tag: RA) | 0.044 | | Comments | 0.044 |
| Plenum Fan-2 | 0.000 | | P.D. Fan Spacing. | 0.044 |
| Economizer-1 (Exh Louver) | 0.307 | | P.D. Louver. P.D. for Unducted entrance | 0.351 |
| Economizer-1 (Exh Damper) | 0.117 | | P.D. Damper. | 0.468 |

| | |
|---|---|
| **Total Static Pressure Loss:** | 0.468 |
| **Total Fan Static Pressure:** | 2.000 |
| **Available External Static Pressure:** | 1.532 |

| Section Type | Calculated PD | PD Override | Comments | Total |
|---|---|---|---|---|
| Economizer-1 (RaD Damper) | 0.164 | | Comments | 0.164 |
| Filter-1 | 0.259 | | | 0.423 |
| Coil-2 | 0.411 | | Comments | 0.834 |
| Plenum Fan-1 | 0.000 | | P.D. Fan Spacing. | 0.834 |
| Plenum Fan-1 (Tag: SA) | 0.090 | | Comments | 0.924 |

| | |
|---|---|
| **Total Static Pressure Loss:** | 0.924 |
| **Total Fan Static Pressure:** | 3.900 |
| **Available External Static Pressure:** | 2.976 |

NOTE: The pressure losses shown above are based on actual, published test data for coils, dampers, filters, and other components. Pressure loss coefficients for cabinet losses and cabinet effects are based on data published in the 'ASHRAE Handbook of Fundamentals', ASHRAE research papers, 'Fan Engineering, 8th Ed.' and Energy Labs internal test data.  Values shown are estimates based on these sources. When there are multiple air paths, data shown is for the worst case.

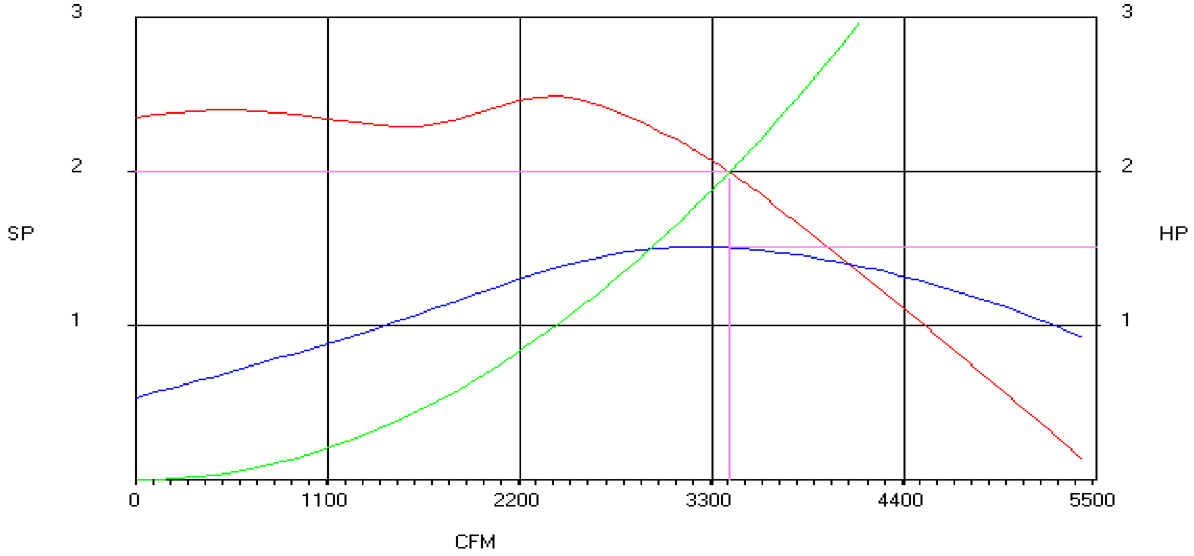
# | Fan Selection Documents

## FAN CURVE

Date:

Fan Duty: RETURN
Fan Size: 182
Fan Model: PLENUM FAN
Fan Class: 2
Wheel Width: 100%

Wheel Type: OLHE-ALUM
Manufacturer: ENERGY LABS
Maximum RPM: 2959
Qty of Fans: 2



| | CFM | SP | BHP | DrHP | RPM | ALT | TEMP | SE |
|---|---|---|---|---|---|---|---|---|
| **Operating:** | 3405 | 2.00 | 1.51 | N/A | 1460 | 0 | 70 | 71 |
| **Standard:** | | 2.00 | 1.51 | | | 0 | 70 | |

| | | 63 | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
|---|---|---|---|---|---|---|---|---|---|
| **Sound Power:** | **Outlet** | 73 | 78 | 82 | 77 | 74 | 70 | 69 | 63 |
| | **Inlet** | 80 | 76 | 81 | 74 | 69 | 70 | 68 | 66 |

**AMCA International Licensed for Sound and Air Performance**

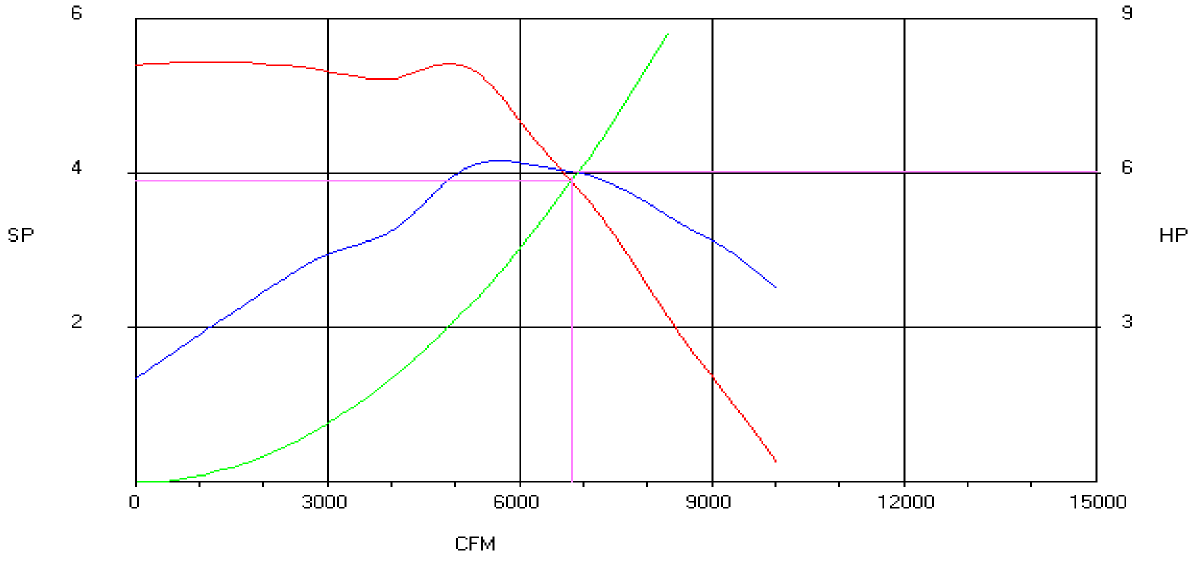
- Energy Labs Inc. certifies that the model ELPF shown herein is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311, and comply with the requirements of the AMCA certified ratings program.
- Operating performance and Sound information is for individual fans
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories)
- Performance certified is for installation type A: Free inlet, Free outlet
- The sound power level ratings shown are in decibels, referred to 1E-12 watts, calculated per AMCA Standard 301.
- Sound power levels shown are for installation type A: Free inlet, Free outlet
- Only outlet sound power levels (Lwo) are certified in accordance with AMCA 311

# FAN CURVE

Date:

Fan Duty: SUPPLY
Fan Size: 200
Fan Model: PLENUM FAN
Fan Class: 2
Wheel Width: 105%

Wheel Type: OLHE-ALUM
Manufacturer: ENERGY LABS
Maximum RPM: 2703
Qty of Fans: 1



| | CFM | SP | BHP | DrHP | RPM | ALT | TEMP | SE |
|---|---|---|---|---|---|---|---|---|
| **Operating:** | 6810 | 3.90 | 6.04 | N/A | 2028 | 0 | 70 | 69.2 |
| **Standard:** | | 3.90 | 6.04 | | | 0 | 70 | |

| | | 63 | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
|---|---|---|---|---|---|---|---|---|---|
| **Sound Power:** | **Outlet** | 83 | 84 | 93 | 85 | 83 | 84 | 81 | 73 |
| | **Inlet** | 77 | 77 | 93 | 83 | 78 | 77 | 77 | 77 |

- Ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311, and comply with the requirements of the AMCA certified ratings program.
- Operating performance and Sound information is for individual fans
- Performance ratings do not include the effect of appurtenances in the airstream
- Performance shown is for installation Type A (free inlet, free outlet)
- The sound power ratings are shown in decibels, referred to 1E-12 watts

# COIL-2

| | | | |
|---|---|---|---|
| Date: | 08/05/2021 | Revision: | 0 |
| Manufacturer: | ENERGY LABS | Coil Altitude [FT]: | 0 |
| Coil Arrangement (HxW): | 1 X 1 | | |

## COIL GEOMETRY

| | | | |
|---|---|---|---|
| Type: | CHILLED WATER | No. of Coils: | 1 |
| Construction: | TYPE ‘C’ - 5/8OD CORR. FIN | No. of Rows: | 6 |
| Fin Height: | 36 | No. of Feeds: | 12 |
| Fin Length: | 64 | No. Of Passes: | 12 |
| Fins Per Inch: | 6 | Conn. Size [in]: | 1.50 |
| Fin Thickness: | 0.008 | Conn. Type | MPT |
| Fin Material: | ALUMINUM | Connection Matl: | COPPER |
| Tube Spacing: | 1.5 IN. CENTERS | | |
| Tube Size(OD): | 5/8 | | |
| Tube Wall: | 0.02 SMOOTH | | |

| **AIRSIDE DATA:** | | **TUBESIDE DATA:** | |
|---|---|---|---|
| SCFM: | 6,810 | Fluid: | WATER |
| ACFM: | 6,810 | Total GPM(all coils): | 28.91 |
| Total Capacity [BTUH]: | 173,600 | Ent. Water [DEG F]: | 46 |
| Sensible Cap [BTUH]: | 161,825 | Lvg. Water [DEG F]: | 58.0 |
| Entering DB [DEG F]: | 77.5 | Water Vel [FT/SEC]: | 2.72 |
| Entering WB [DEG F]: | 63.1 | Press. Drop [FT H2O]: | 7.48 |
| Leaving DB [DEG F]: | 55.5 | Fluid Fouling Factor [h-ft^2-°F/Btu]: | 0 |
| Leaving WB [DEG F]: | 54.41 | | |
| Std Face Vel [FPM]: | 425.6 | | |
| Act Face Vel [FPM:] | 425.6 | | |
| Pressure Drop [In H2O]: | 0.411 | | |

ENERGY LABS PART NO: 5WC-0 606-36X64-A12/12C

Ver. 4.26 Nov. 2015

NOTES:

AHRI CERTIFIED™
www.ahridirectory.org
Air-Cooling and Air-Heating Coils
AHRI Standard 410

- Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.

Energy Labs Inc
9651 Airway Rd. Suite E
San Diego, CA. 92154
O (619) 671-0100 Ext. 218
F (619) 671-0160

# Weight Report

Project Name: **Crafton Hills Music**

| | | | |
|---|---|---|---|
| Sales Representative: | **Andy Tripicchio** | Engineer: | Date: |
| Sales Agency: | **DMG - Los Angeles** | Contractor/Customer: | |

Unit Tag: **AHU-104**

| | | | |
|---|---|---|---|
| Unit Size: | **78"W x 42"H x 270" L** | Quantity: | **1** |
| CFM: | **6810** | Location: | **Outdoor w/ Roof Curb Angle** |

| Split | Section Name | Length | Add for Oper. Wgt. (lbs) | Shipping Weight (lbs) |
|---|---|---|---|---|
| Split - 1 | | | | |
| | Miscellaneous | | **0** | **256** |
| | Plenum-1 | 36 | **0** | **838** |
| | Plenum Fan-2 | 48 | **0** | **1,531** |
| | Economizer-1 | 72 | **0** | **1,357** |
| | Filter-1 | 16 | **0** | **409** |
| | Coil-2 | 48 | **113** | **1,286** |
| | Plenum Fan-1 | 50 | **0** | **1,331** |
| | Electrical | | **0** | **105** |
| | SubTotal for Split - 1 | | **113** | **7,113** |

| | | |
|---|---|---|
| Unit Total: | **113** | **7,113** |
| Unit Operating Weight: | | **7,221** |
| Weight per SQFT-Base: | | **49** |
| Unit Total w/Safety: | | **7,824** |
| Unit Operating Weight w/Safety: | | **7,943** |
| Weight per SQFT-Base w/Safety: | | **54** |
| Roof Curb Total Unit Weight: | | **0** |

Job: Norco College

Engineer: ______

Contractor: ______

Prepared By: Jose Lopez Date: 10.12.21

Model: H7-753A Indoor/Outdoor: ______

# MVB® - Type H

## Heating Boilers
## Models 503A-2003A

**86.2% Thermal Efficiency at Full Rate: Up to 88.4% at Part Load**

**100% Factory Fire-Tested**

**VERSA IC® Integrated Controller with LCD Display**

**Electronic Modulation, Constant Ratio 7:1 Turndown**

**Full Safety Diagnostics with History**

**Status Display LED Lights**

**Modbus RTU BMS Port**

**Maximum Outlet Water Temperature: 235°F**

**Minimum Acceptable Inlet Water Temperature: 120°F**

**Limited Twenty-Year Thermal Shock Warranty**

**Limited Ten-Year Heat Exchanger Warranty**

**Ultra Low NOx – Less than 20PPM**

Proudly Assembled in the USA

**Heat Exchanger**
- Headers
  - ☒ Cast Iron – Standard
  - ☐ A-1 Bronze
- ASME H Stamped
  160 PSIG MAWP
- National Board Approved
- Fin Tubing
  - ☒ Copper – Standard
  - ☐ A-3 Cupro-Nickel
- ASME Powder-Coated Tube Sheet
- Silicone High-Temp O-Rings
- ASME Pressure Relief Valve
  - ☒ 60 PSIG – Standard
  - ☐ ___ PSIG – Optional
- Temperature and Pressure Gauge, Shipped Loose
- Stainless Steel Evaporator Plate
- 4-Pass Heat Exchanger

**Control**
- 120V, 60Hz, 1Ø, Power Supply
- 120/24V 60Hz Transformer
- VERSA IC® Integrated Control
- Cascade up to 4 Boilers
- Ignition Module
  - ☒ 3-Try – Standard
  - ☐ C-6 Single-Try
- Hot Surface Ignition (HSI)
- Remote Flame Sensor
- Freeze Protection
- High Limit, Manual Reset, Fixed, 240ºF
- On/Off Power Switch
- Flow Switch
- Blocked Vent Pressure Switch
- Programmable Pump Time Delays
- Pump Outputs
  - Boiler pump
  - DHW Indirect – Pilot Duty
  - System – Pilot Duty

**Control (cont.)**
- LCD Display; Status, Fault and Diagnostics
- Modulating Temperature Control
- Water Temperature Sensors (7)
- Cold Water Protection Function
  - Optional Variable Speed Pump
  - Optional Proportional Valve
- Modbus RTU BMS Port

**Burner**
- Radially-Fired Knitted Burner

**Gas Train**
- Fuel
  - ☒ Natural Gas
  - ☐ Propane
- Dual-Seat Combination Firing Valve
- Manual Shut-Off Valve

**Construction**
- Design Certified ANSI Z21.13/CSA 4.9
- CSA Low Lead Certified ≤.25% Lead
- Indoor/Outdoor Construction
- Front Controls Enclosed
- PolyTuf Powder Coat Finish
- Rear Connections (Water, Electrical, Gas, Vent, Combustion Air)
- Combustion Air Filter – Inline

**Venting**
- Vent Termination
  - ☐ D-11 Outdoor
  - ☐ D-15 Indoor, Horizontal
  - ☐ Indoor, Vertical (by others)
- Combustion Air
  - ☐ D-16 Air Intake Elbow
- Extractor – Optional
  - ☐ By others
  - ☐ Not required

**Options**

| | |
|---|---|
| ☐ A-30 | Air Vent, Auto, 150 PSI |
| ☐ B-31 | Dry-Well Assembly |
| ☐ B-32 | Outdoor Air Sensor |
| ☐ B-85 | Gateway – BACnet MS/TP, BACnet IP, N2 Metasys or Modbus TCP |
| ☐ B-86 | Gateway - LonWorks |
| ☐ F-10 | Low Water Cut-Off, Remote Probe |
| ☐ I-1 | High Limit, Auto Reset, Adj., 100-240°F |
| ☐ I-2 | High Limit, Manual Reset, Adj., 100-240°F (additional) |
| ☒ P-9 | Pump: 1/4HP, 120V, 1∅, 60Hz<br>Water Hardness: ______ GPG<br>☒ Cast Iron ☐ Bronze<br>☐ Loose ☒ Mounted |
| ☐ P-__ | Cold Water Start |
| ☐ P-__ | Cold Water Run |
| ☐ S-1 | Low Gas Pressure Switch, Manual Reset |
| ☐ S-2 | High Gas Pressure Switch, Manual Reset |
| ☒ Z-12 | Condensate Treatment Kit |

**Regulatory Agency Requirements**

☒ **G-12 Calcode**

**Multi-Boiler Temperature Controllers**

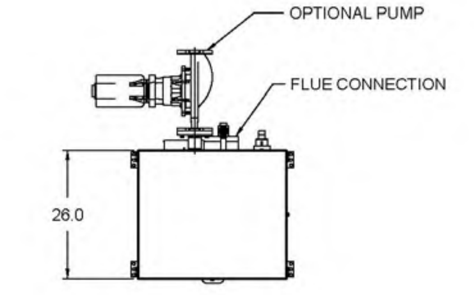
☐ TempTracker Mod+ Hybrid
  - ☐ B-36 2-4 Heaters
  - ☐ B-37 5-10 Heaters
  - ☐ B-38 11-16 Heaters
  - ☐ B-39 EMS 4-20mA Remote Setpoint Interface Module
  - ☐ B-62 BACnet MS/TP Interface

Raypak®
A Rheem® Company

Catalog No.: 2000.362G Effective: 10-01-15 Replaces: 05-15-15

# MVB® – Type H
## Models 503A-2003A

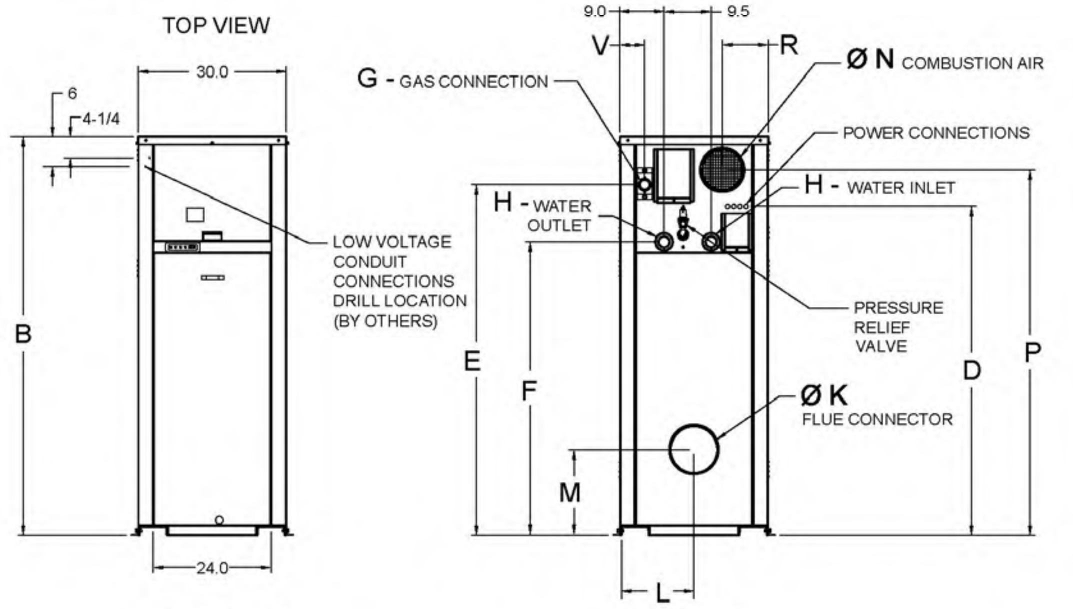
## Model H7-753A



TOP VIEW

**CLEARANCES**

| | Certified Minimum | Recomm. Service |
|---|---|---|
| Front | 24” | 24” |
| Rear | 12” | 24” |
| Right | 1’ | 1” |
| Left | 1” | 1” |
| Top | 0” | 10” |
| Floor | 0” | 0” |
| Vent | 1” | 1” |



FRONT VIEW

REAR VIEW

| Model (H7-) | MBTUH | | Dimensions (in.) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Input | Output | B Height | D | E | F | G NPT | H NPT | K Flue Ø | L | M | N C/A Ø | P | R | V |
| 503A ☐ | 500 | 431 | 43 | 30-3/4 | 35 | 23-3/4 | 1 | 2 | 6 | 13-3/4 | 14-1/4 | 6 | 36-3/4 | 8-1/4 | 1-3/4 |
| 753A ☒ | 750 | 647 | 49 | 36-3/4 | 40-3/4 | 29-1/2 | 1 | 2 | 6 | 13-1/2 | 14-1/4 | 6 | 42-1/2 | 8-1/4 | 1-3/4 |
| 1003A ☐ | 999 | 861 | 55 | 42-3/4 | 46-3/4 | 35-1/2 | 1-1/4 | 2-1/2 | 6 | 13-1/2 | 14-1/4 | 6 | 48-1/2 | 8-1/4 | 1-3/4 |
| 1253A ☐ | 1250 | 1078 | 61 | 48-3/4 | 53 | 41-3/4 | 1-1/4 | 2-1/2 | 8 | 13-3/4 | 17-1/4 | 8 | 54-3/4 | 8-1/4 | 1-3/4 |
| 1503A ☐ | 1500 | 1293 | 67 | 54-3/4 | 58-3/4 | 47-1/2 | 1-1/4 | 2-1/2 | 8 | 13-3/4 | 17-1/4 | 8 | 60-1/2 | 8-1/4 | 1-3/4 |
| 1753A ☐ | 1750 | 1508 | 75 | 61 | 65-1/4 | 53-3/4 | 2 | 2-1/2 | 8 | 13-1/2 | 17-1/4 | 8 | 68-1/2 | 9-1/2 | 5 |
| 2003A ☐ | 1999 | 1723 | 81 | 66-3/4 | 71-1/4 | 59-1/2 | 2 | 2-1/2 | 8 | 13-3/4 | 17-1/4 | 8 | 74 | 9-1/2 | 5 |

PUMP HP – Amps*

| Model (H7-) | Water Hardness | | |
|---|---|---|---|
| | ☐ Soft | ☐ Medium | ☐ Hard |
| 503A ☐ | 1/4 - 6 | 1/4 - 6 | 3/4 – 11 |
| 753A ☒ | 1/4 - 6 | 1/2 – 7 | 3/4 – 11 |
| 1003A ☐ | 1/4 - 6 | 1/2 – 7 | 1 – 14 |
| 1253A ☐ | 1/2 – 7 | 1 – 14 | 1 – 14 |
| 1503A ☐ | 3/4 – 11 | 1 – 14 | 1 – 14 |
| 1753A ☐ | 1 – 14 | 1-1/2 – 15 | 1-1/2 – 15 |
| 2003A ☐ | 1 – 14 | 1-1/2 – 15 | 1-1/2 – 15 |

*Current Draw is for Pump Only

- Ratings shown are for elevations up to 2,000 feet. For installations at elevations above 4,500 feet, please consult the factory for additional instructions.
- For direct vent applications, please contact the factory about relocating the pump.

| Model (H7-) | Shipping Weight (Lbs.) | Footprint ($Ft^2$) | Amps* |
|---|---|---|---|
| 503A ☐ | 600 | 5.4 | 12 |
| 753A ☒ | 670 | 5.4 | 12 |
| 1003A ☐ | 720 | 5.4 | 12 |
| 1253A ☐ | 780 | 5.4 | 12 |
| 1503A ☐ | 840 | 5.4 | 12 |
| 1753A ☐ | 940 | 5.4 | 18 |
| 2003A ☐ | 1000 | 5.4 | 18 |

*Current draw is for heater only.
(Supply breaker must have delayed trip.)

**RATES OF FLOW AND PRESSURE DROPS**

| Model | 20°F ΔT | | 30°F ΔT | | 39°F ΔT* | | Maximum Flow | | | Minimum Flow* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (H7-) | GPM | ΔP (ft.) | GPM | ΔP (ft.) | GPM | ΔP (ft.) | GPM | ΔP (ft.) | ΔT (°F) | GPM | ΔP (ft.) | ΔT (°F) |
| 503A ☐ | 43 | 2.8 | 29 | 1.4 | N/A | N/A | 100 | 11.3 | 8.6 | 25 | 1.1 | 35 |
| 753A ☒ | 65 | 6.4 | 43 | 3.1 | 33 | 1.9 | 100 | 13.8 | 13 | 33 | 1.9 | 39 |
| 1003A ☐ | 86 | 12.0 | 57 | 6.0 | 44 | 3.7 | 113 | 18.6 | 15 | 44 | 3.7 | 39 |
| 1253A ☐ | 108 | 20.9 | 72 | 10.2 | 55 | 6.2 | 113 | 22.2 | 19 | 55 | 6.2 | 39 |
| 1503A☐ | N/A | N/A | 86 | 16.0 | 66 | 9.5 | 113 | 25.5 | 23 | 66 | 9.5 | 39 |
| 1753A ☐ | N/A | N/A | 101 | 22.5 | 77 | 13.4 | 113 | 27.2 | 27 | 77 | 13.4 | 39 |
| 2003A ☐ | N/A | N/A | 115 | 31.9 | 88 | 18.9 | 115 | 30.2 | 31 | 88 | 18.9 | 39 |

* Closed systems only

# Unit Report For 110 Ton

Project: Norco College

10.12.21

Prepared By:

03:36PM

## Unit Information

| | | |
|---|---|---|
| Tag Name: | **110 Ton** | |
| Model Number: | **30RB110** | |
| Condenser Type: | **Air Cooled** | |
| Compressor Type: | **Scroll** | |
| Nameplate Voltage: | **460-3-60** | V-Ph-Hz |
| Quantity: | **1** | |
| Manufacturing Source: | **Charlotte, NC USA** | |
| Refrigerant: | **R410A** | |
| Independent Refrigerant Circuits: | **2** | |
| Capacity Control Steps: | **5** | |
| Minimum Capacity: | **18.0** | % |
| Shipping Weight: | **7067** | lb |
| Operating Weight: | **7442** | lb |
| Unit Length: | **142** | in |
| Unit Width: | **89** | in |
| Unit Height: | **90** | in |

## Accessories and Installed Options

Freeze Protection

Al Fin/Cu Tube

Ultra Low Sound Option

Dual Pump, 10 HP w/ VFD

Single Point

BACnet Communications

Coil Trim Panels (both sides of the chiller), Grilles

Greenspeed Intelligence: High-Efficiency Variable Condenser Fans

## Chiller Warranty Information (Note: for US & Canada only)

First Year - Parts Only (Standard)

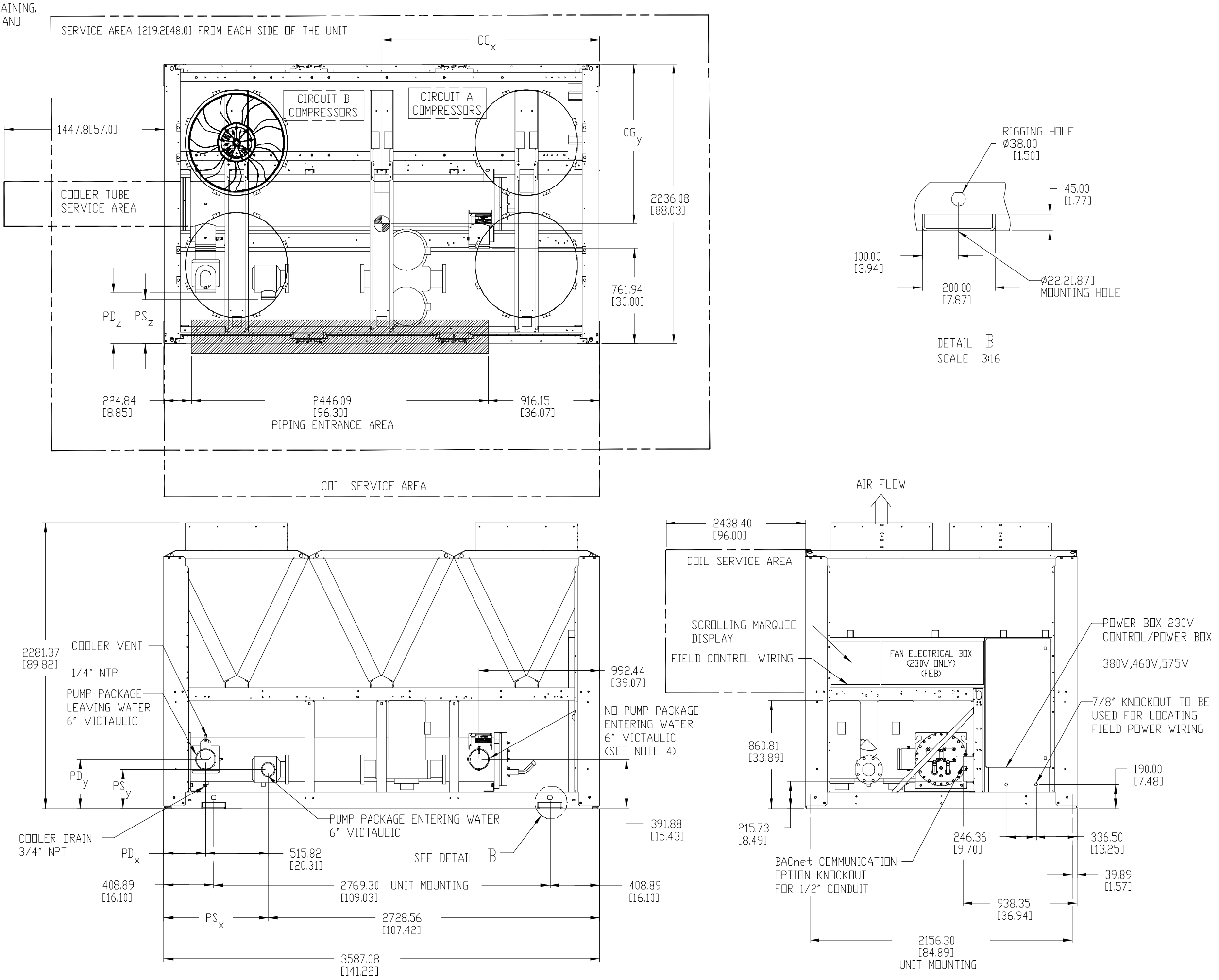
## Ordering Information

| Part Number | Description | Quantity |
|---|---|---|
| 30RBX1106-QHKQ37 | Packaged Chiller | 1 |
| | Base Unit | |
| | Freeze Protection | |
| | Al Fin/Cu Tube | |
| | Ultra Low Sound Option | |
| | Dual Pump, 10 HP w/ VFD | |
| | Single Point | |
| | BACnet Communications | |
| | Coil Trim Panels (both sides of the chiller), Grilles | |
| | Greenspeed Intelligence: High-Efficiency Variable Condenser Fans | |

# Certified Drawing for 110 Ton

NOTES: 1. UNIT MUST HAVE CLEARANCES AS FOLLOWS:
TOP- DO NOT RESTRICT
SIDES AND END- 6' FROM SOLID SURFACE.FOR AIRFLOW
SIDE- 8' REQUIRED FOR COIL SERVICE AREA.
2. ALL PUMPS HAVE DRAINS LOCATED AT THE BOTTOM OF VOLUTE FOR DRAINING.
3. TEMPERATURE RELIEF DEVICES LOCATED ON SUCTION LINE,LIQUID LINE AND FILTER DRIER OF EACH CIRCUIT AND HAVE 1/4" FLARE CONNECTION.
4. NO PUMP PACKAGE LEAVING WATER CONNECTION IS SAME SIZE AND HAS SAME Y AND Z DIMENSIONS AS ENTERING WATER. ALSO HAS SAME PDx DIMENSION AS PUMP PACKAGE.

UNITED TECHNOLOGIES CARRIER
P.O. BOX 4808
SYRACUSE, NY
13221



|  | WEIGHT CU/AL lb/kg | MAX WEIGHT CU/AL PUMP lb/kg | WEIGHT CU/CU lb/kg | MAX WEIGHT CU/CU PUMP lb/kg | WEIGHT MCHX lb/kg | MAX WEIGHT MCHX PUMP lb/kg | CENTER OF GRAVITY |  | PUMP SUCTION (PS) |  |  | PUMP DISCHARGE (PD) |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  | CGx MM [INCH] | CGy MM [INCH] | X ±.25 | Y ±.25 | Z ±.25 | X ±.25 | Y ±.25 | Z ±.25 |
| 30RB-110 | 6519<br>2963 | 7442<br>3383 | 7243<br>3292 | 8166<br>3712 | 6027<br>2734 | 6950<br>3152 | 1713<br>[67.44] | 997<br>[39.25] | 856.0<br>[33.7] | 281.9<br>[11.1] | 60.9<br>[2.4] | 340.4<br>[13.4] | 391.2<br>[15.4] | 233.7<br>[9.2] |

| DATE | SUPERCEDES |  |  | REV |
|---|---|---|---|---|
| 06/10/10 | 04/20/10 | 30RB-110 AIR COOLED CHILLER | 00DCN500000400A | G.3 |

# 30RB with Greenspeed®Intelligence

## Unit Information

| | | |
|---|---|---|
| Tag Name: | **110 Ton** | |
| Model Number: | **30RB110** | |
| Quantity: | **1** | |
| Manufacturing Source: | **Charlotte, NC USA** | |
| ASHRAE 90.1: | **2013/2016, 2010, 2007** | |
| Refrigerant: | **R-410A** | |
| Independent Refrigerant Circuits: | **2** | |
| Shipping Weight: | **7067** | lb |
| Operating Weight: | **7442** | lb |
| Refrigerant Weight (Circuit A): | **96** | lb |
| Refrigerant Weight (Circuit B): | **106** | lb |
| Unit Length: | **142** | in |
| Unit Width: | **89** | in |
| Unit Height: | **90** | in |

| | | |
|---|---|---|
| IPLV:.IP: | **16.71** | BTU/Wh |

## Evaporator Information

| | | |
|---|---|---|
| Fluid Type: | **Fresh Water** | |
| Fouling Factor: | **0.000100** | (hr-sqft-F)/BTU |
| Leaving Temperature: | **44.00** | °F |
| Entering Temperature: | **56.00** | °F |
| Fluid Flow: | **213.2** | gpm |
| Pressure Drop: | **8.27** | ft H2O |

## Condenser Information

| | | |
|---|---|---|
| Altitude: | **0.000** | ft |
| Number of Fans: | **6** | |
| Total Condenser Fan Air Flow: | **74,400** | CFM |
| Entering Air Temperature: | **94.0** | °F |

## Integrated Pump Information

| | | |
|---|---|---|
| Dynamic Head At Pump: | **95.2** | ft |
| Balancing Valve Head Loss: | **27.0** | ft |
| Dynamic Head External To Chiller: | **60.0** | ft |

## Performance Information

| | | |
|---|---|---|
| Cooling Capacity: | **106.9** | Tons |
| Total Compressor Power: | **109.2** | kW |
| Total Fan Motor Power: | **15.49** | kW |
| Pump Power: | **6.326** | kW |
| Total Unit Power (without pump): | **124.7** | kW |
| Total Unit Power (with pump): | **131.0** | kW |
| Efficiency (without pump) (EER): | **10.29** | BTU/Wh |

**Accessories and Installed Options**

- Freeze Protection
- Al Fin/Cu Tube
- Ultra Low Sound Option
- Dual Pump, 10 HP w/ VFD
- Single Point
- BACnet Communications
- Coil Trim Panels (both sides of the chiller), Grilles
- Greenspeed Intelligence: High-Efficiency Variable Condenser Fans

Connection Type:.................... **Single Point**
Minimum Voltage:.................... **414** Volts
Maximum Voltage:.................... **506** Volts

| Amps | Electrical Circuit 1 | Electrical Circuit 2 |
|---|---|---|
| MCA | 235.6 | --- |
| MOCP | 250.0 | --- |
| ICF | 447.3 | --- |
| Rec Fuse Size | 250.0 | --- |

**Electrical Information**

Unit Voltage:.................... **460-3-60** V-Ph-Hz

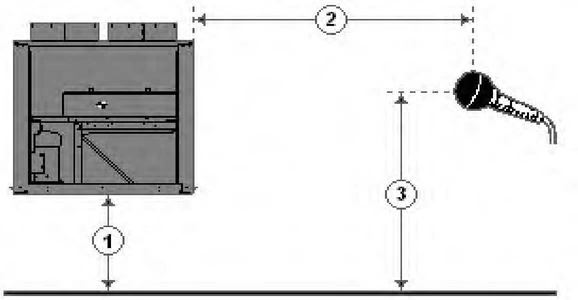
All performance efficiency data are without pump.
Sound power measured in accordance with ANSI/AHRI Standard 370-2015.

Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Certified units may be found in the AHRI Directory at www.ahridirectory.org.

# Summary Performance Report For 110 Ton

**Unit Parameters**

| | | |
|---|---|---|
| Tag Name: | **110 Ton** | |
| Model Number: | **30RB110** | |
| Condenser Type: | **Air Cooled** | |
| Compressor Type: | **Scroll** | |
| Chiller Nameplate Voltage: | **460-3-60** | V-Ph-Hz |
| Quantity: | **1** | |
| Manufacturing Source: | **Charlotte, NC USA** | |
| Refrigerant: | **R-410A** | |
| Shipping Weight: | **7067** | lb |
| Operating Weight: | **7442** | lb |
| Refrigerant Weight (Circuit A): | **96** | lb |
| Refrigerant Weight (Circuit B): | **106** | lb |
| Unit Length: | **142** | in |
| Unit Width: | **89** | in |
| Unit Height: | **90** | in |



1 - Chiller Height Above Ground
2 - Horizontal Distance From Chiller to Receiver
3 - Receiver Height Above Ground
(See Note 3)

**Accessories and Installed Options**

- Freeze Protection
- Al Fin/Cu Tube
- Ultra Low Sound Option
- Dual Pump, 10 HP w/ VFD
- Single Point
- BACnet Communications
- Coil Trim Panels (both sides of the chiller), Grilles
- Greenspeed Intelligence: High-Efficiency Variable Condenser Fans

## Acoustic Information

**Table 1. A-Weighted Sound Power Levels (dB re 1 picowatt). See note #1.**

| Octave Band Center Frequency, Hz | 31 | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | Overall |
|---|---|---|---|---|---|---|---|---|---|---|
| 100% Load | --- | 67 | 79 | 86 | 92 | 96 | 92 | 86 | 78 | 99 |
| 75% Load | --- | 66 | 81 | 87 | 91 | 95 | 91 | 87 | 79 | 98 |
| 50% Load | --- | 63 | 66 | 75 | 82 | 82 | 81 | 78 | 74 | 88 |
| 25% Load | --- | 62 | 69 | 75 | 81 | 83 | 80 | 76 | 69 | 87 |

**Table 2. A-Weighted Sound Pressure Levels (dB re 20 micropascals) calculated based upon user defined input for dimensions 1, 2 and 3 as shown in above diagram. See note #2 and #3.**

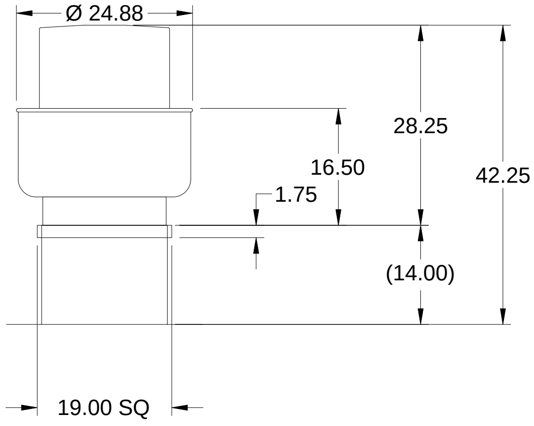
| Octave Band Center Frequency, Hz | 31 | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | Overall |
|---|---|---|---|---|---|---|---|---|---|---|
| 100% Load | --- | 39 | 51 | 58 | 64 | 68 | 64 | 58 | 50 | 71 |
| 75% Load | --- | 38 | 52 | 58 | 63 | 67 | 63 | 59 | 51 | 70 |
| 50% Load | --- | 35 | 38 | 47 | 54 | 54 | 53 | 50 | 46 | 59 |
| 25% Load | --- | 34 | 41 | 47 | 53 | 55 | 52 | 48 | 41 | 59 |

Notes: (1) Measurements performed in accordance with AHRI Standard 370-2015 for air cooled Chillers.
(2) Chiller is assumed to be a point source on a reflecting plane.
(3) Without user defined input, the default dimensions used to construct Table 2 are as follows:
1 - Chiller Height Above Ground = 0.0 ft
2 - Horizontal Distance From Chiller to Receiver = 30.0 ft
3 - Receiver Height Above Ground = 3.0 ft

## Please refer to Performance Output Summary or Detailed Performance Report for Acoustic information

# Model: CUE-121-A

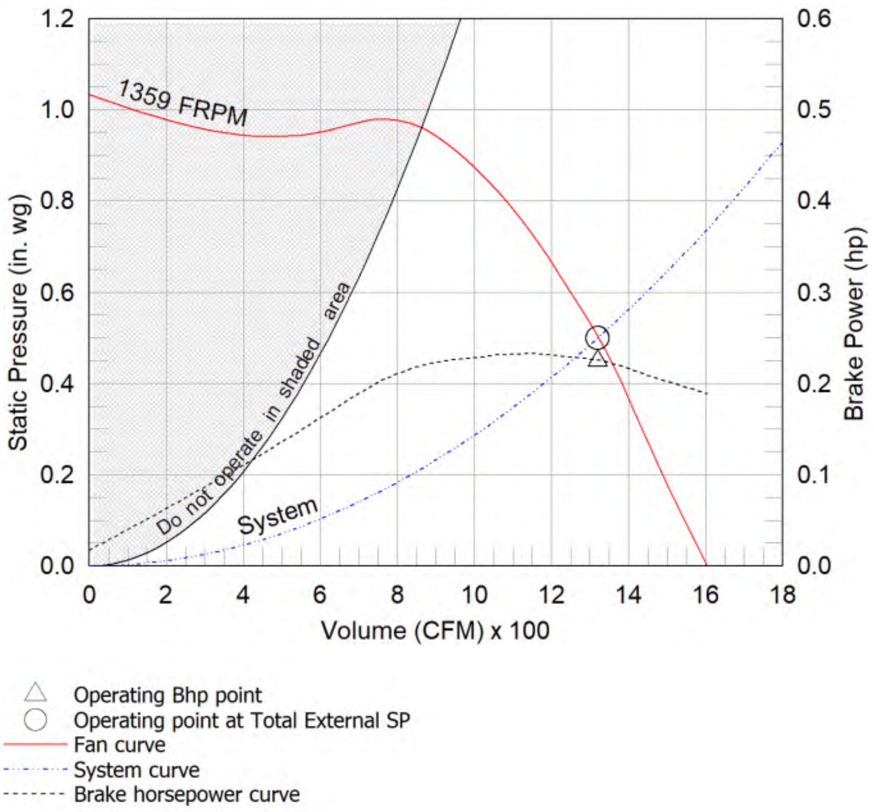
## Direct Drive Upblast Centrifugal Roof Exhaust Fan



OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR.

| Dimensional | |
|---|---|
| Quantity | 1 |
| Weight w/o Acc's (lb) | 65 |
| Weight w/ Acc's (lb) | 70 |
| Weight w/ Acc's and Curb (lb) | 97 |
| Max T Motor Frame Size | 56 |
| Roof Opening (in.) | 14.5 x 14.5 |

| Performance | |
|---|---|
| Requested Volume (CFM) | 1,320 |
| Actual Volume (CFM) | 1,320 |
| Total External SP (in. wg) | 0.5 |
| Fan RPM | 1359 |
| Operating Power (hp) | 0.23 |
| Elevation (ft) | 325 |
| Airstream Temp.(F) | 70 |
| Air Density (lb/ft3) | 0.074 |
| Tip Speed (ft/min) | 4,649 |
| Static Eff. (%) | 46 |



| Motor | |
|---|---|
| Motor Mounted | Yes |
| Size (hp) | 1/2 |
| Voltage/Cycle/Phase | 460/60/3 |
| Enclosure | EXP |
| Motor RPM | 1725 |
| Efficiency Rating | Standard |
| Windings | 1 |
| NEC FLA* (Amps) | 1.1 |

### Sound Power by Octave Band

| Sound Data | 62.5 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | LwA | dBA | Sones |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Inlet | 75 | 77 | 81 | 67 | 63 | 64 | 55 | 47 | 74 | 63 | 11.9 |

### Notes:

All dimensions shown are in units of in.
*NEC FLA - based on tables 430.248 or 430.250 of National Electrical Code 2014. Actual motor FLA may vary, for sizing thermal overload, consult factory.
LwA - A weighted sound power level, based on ANSI S1.4
dBA - A weighted sound pressure level, based on 11.5 dB attenuation per Octave band at 5 ft - dBA levels are not licensed by AMCA International
Sones - calculated using ANSI/AMCA 301 at 5 ft
The motor provided on this fan is inverter ready and meets NEMA MG1 Part 31.4.4.2

amca WORLDWIDE CERTIFIED RATINGS SOUND AND AIR PERFORMANCE AIR MOVEMENT AND CONTROL ASSOCIATION INTERNATIONAL, INC. www.amca.org

# Model: CUE-121-A

## Direct Drive Upblast Centrifugal Roof Exhaust Fan

### Standard Construction Features:

- Aluminum housing - Backward inclined aluminum wheel - Aluminum curb cap with prepunched mounting holes - Drain trough - Ball bearing motors (sizes 85-300 and all Vari Green), sleeve bearing motors (sizes 60-80) - Motor isolated on shock mounts - Corrosion resistant fasteners

**Spark B construction was selected.**
It is the responsibility of the consulting engineer to specify and validate any options or accessories that are required to meet the intent of the desired level of spark resistant construction from AMCA 99-0401. Greenheck is not in a position to consult on what modifications are necessary to make an acceptably safe system for any specific application or environment. End users need to add more detailed specifications and consult with an expert to mitigate the risk that an unsafe condition could arise.

### Selected Options & Accessories:

Motor VFD Rated without Shaft Grounding Protection
Provided motor meets the motor efficiency requirements set forth in Title 24/ California
Spark B Construction
UL/cUL 705 Listed - "Power Ventilators"
Switch, NEMA-7 and 9, Toggle, Shipped with Unit, Division1 Wiring
Junction Box Mounted & Wired
Foam Curb Seal (Attached)
Coated with Hi-Pro Polyester, Concrete Gray-RAL 7023, Fan And Attached Acc
Aluminum Rub Ring
Unit Warranty: 1 Yr (Standard)

### Selected Sub Marks

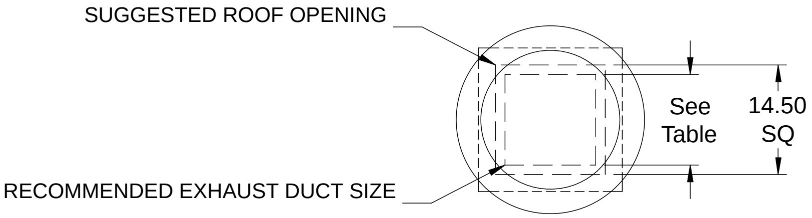
*See individual submittals for full details*
GPF-19-12-A14

GREENHECK
Building Value in Air.

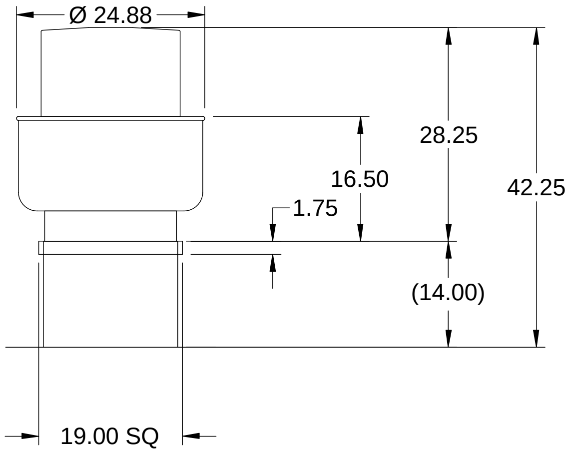
**Printed Date:** 10.10.21
**Job:** Norco College
**Mark:** EF--
**Model:** CUE-121-A

# Assembly Drawing

## Type: Direct Drive Upblast Centrifugal Roof Exhaust Fan



| DUCT TYPE | SIZE |
|---|---|
| STANDARD | 12 SQ |
| FIRE-WRAPPED | 4 SQ |



DUCT DIMENSIONS ARE LARGEST POSSIBLE DUCT TO FIT THROUGH CURB.
CONSULT SYSTEM DESIGN ENGINEER FOR RECOMMENDED DUCT SIZE.

OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR.

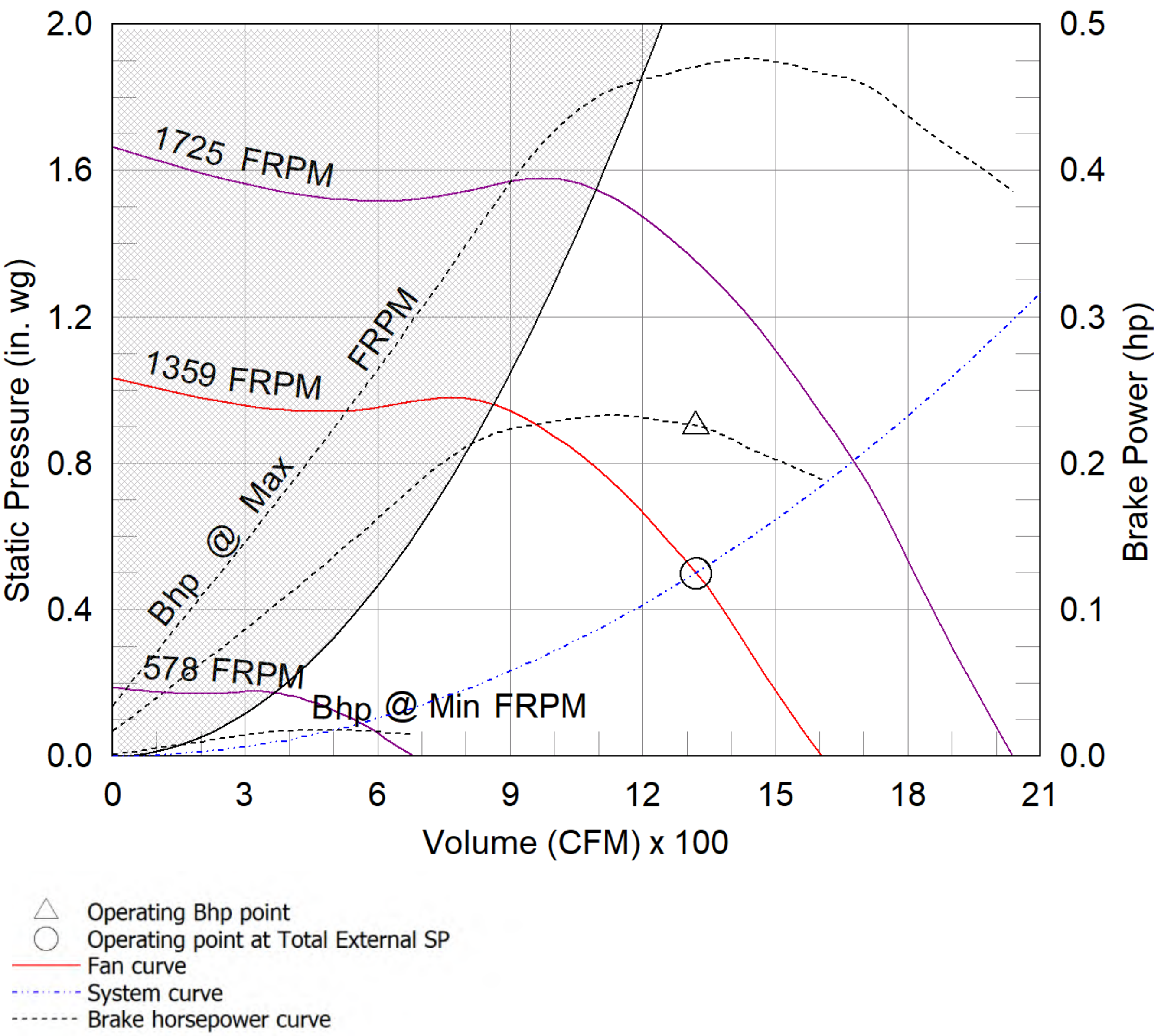
Notes: All dimensions shown are in units of in..

**Printed Date:** 10.10.21
**Job:** Norco College
**Mark:** EF--
**Model:** CUE-121-A

# CUE-121-A Min/Max Fan Curve

**Performance**

| Requested Volume (CFM) | Actual Volume (CFM) | Total External SP (in. wg) | Fan RPM | Operating Power (hp) |
|---|---|---|---|---|
| 1,320 | 1,320 | 0.5 | 1359 | 0.23 |



# Ducted Style Heat Pump Ductless System

## Indoor Model: 40MBDQ18---3

# Submittal Data

Job Data: ______ Location: ______

Buyer: ______ Buyer P.O. #: ______ Carrier #: ______

Unit Number: ______ Model Number: ______

Performance Data Certified By: ______ Date: ______

**STANDARD FEATURES**

Modes: Cool, Heat, Dry, Fan, Auto
Vertical or Horizontal Installation
Rear or Bottom Return
Outside Air Intake
Condensate Lift pump shipped with the unit
Follow Me (senses temperature at handheld remote)
Heating Setback (46° F Heating Mode)
Quiet indoor operation
Aluminum Golden Hydrophilic pre-coated fins

**Controls:**

Wireless Remote Controller included with indoor unit
Optional Wired Remote Controller (Timer Function)
Wired Remote Controller KSACN0501AAA (7 Day programmable) included with indoor unit

LIMITED WARRANTY*

- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years

*For residential applications. See warranty for full details.

| | | | |
|---|---|---|---|
| System | Size | | 18 |
| | Indoor Model | | 40MBDQ18---3 |
| Electrical | Voltage, Phase, Cycle | V/Ph/Hz | 208/230-1-60 |
| | Power Supply | Powered from outdoor unit | |
| | MCA | A. | 1.2 |
| Controls | Wireless Remote Controller (°F/°C Convertible) | | Standard |
| | Wired Remote Controller (°F/°C Convertible) | | Standard |
| Operating Range | Cooling Indoor DB Min -Max | ° F (° C) | 63~90 (17~32) |
| | Heating Indoor DB Min -Max | ° F (° C) | 32~86 (0~30) |
| Piping | Pipe Connection Size - Liquid | in (mm) | 1/4 (6.35) |
| | Pipe Connection Size - Suction | in (mm) | 1/2 (12.7) |

| | | | |
|---|---|---|---|
| Indoor Coil | Face Area | Sq. Ft. | 1.9 |
| | No. Rows | | 3 |
| | Fins per inch | | 16 |
| | Circuits | | 4 |
| Indoor | Unit Width | in (mm) | 34.65 (880) |
| | Unit Height | in (mm) | 8.27 (210) |
| | Unit Depth | in (mm) | 26.54 (674) |
| | Net Weight | lbs (kg) | 54 (24.5) |
| | Number of Fan Speeds | | 3 |
| | Airflow (lowest to highest) | CFM | 300/400/480 |
| | Sound Pressure (lowest to highest) | dB(A) | 35/37/39 |
| | Max Static Pressure | In.WG. | 0.4 |
| | Field Drain Pipe Size O.D. | in (mm) | 1 (25.4) |

For Compatibility See Product Data

Performance may vary based on the outdoor unit matched to. See compatible outdoor units pages for Performance Data.

## *Accessories*

| | |
|---|---|
| KSACN0101AAA | Optional Wired Remote Control with Timer Function |
| KSACN0501AAA | Shipped with the unit Wired Remote Control 7 day Programmable |
| KSAIF0401AAA | Wi-Fi™ Kit |
| KSAIC0101230 | 24V Interface Kit 208/230V |
| 53DS-900---008 | Insulated 25’ Line Set - 1/4” x 3/8” |
| 53DS-900---090 | Wireless Remote Control Locking Mount Kit |

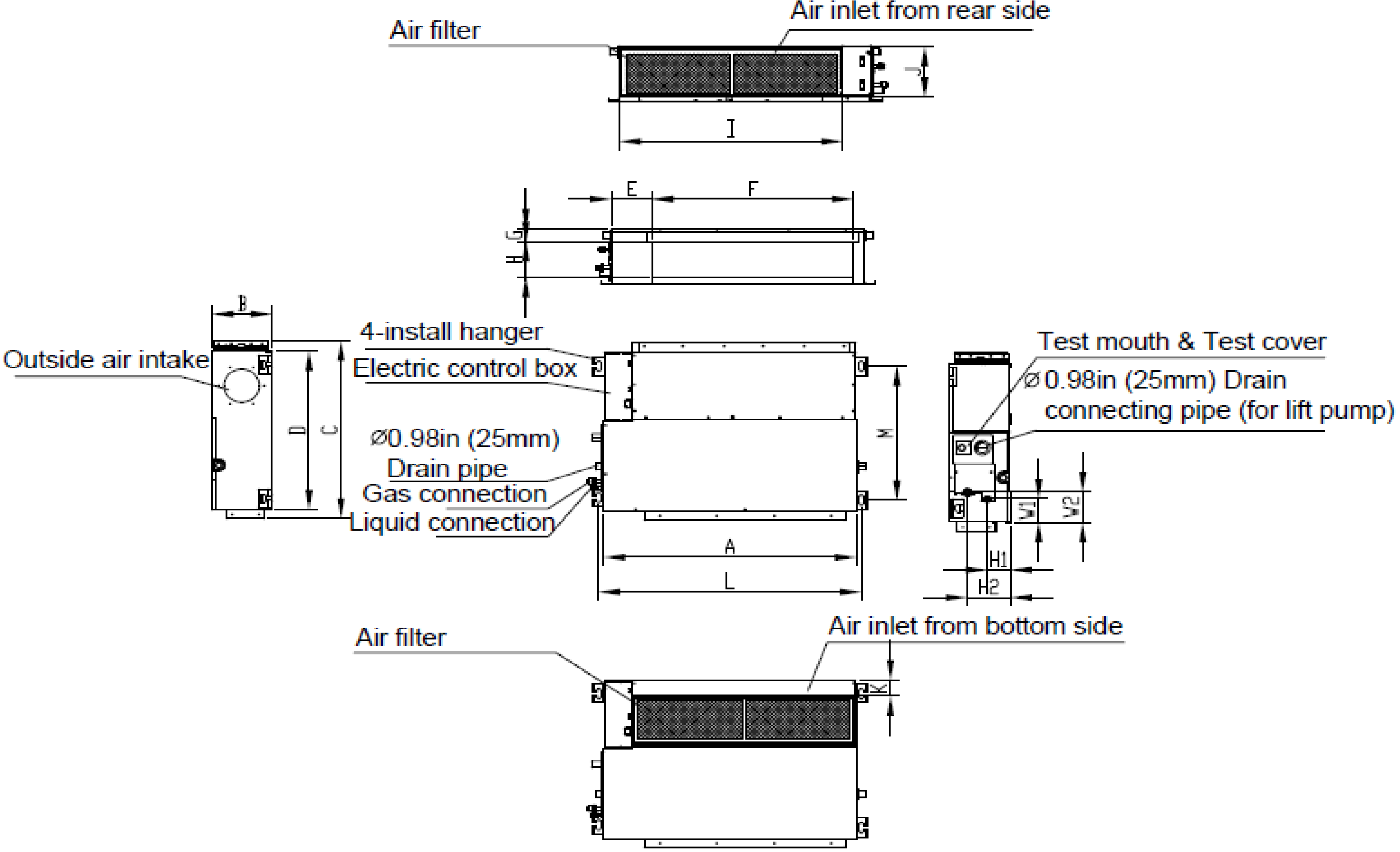
Edition Date: 03/2018

Catalog No: 40MBDQ-18-3-02SB

Replaces: 40MBDQ-18-3-01SB

# *Construction View*

**Indoor Model: 40MBDQ18---3**



| | | Unit | inch | mm |
|---|---|---|---|---|
| OUTLINE | DIMENSIONS | A | 34.65 | 880 |
| | | B | 8.27 | 210 |
| | | C | 26.54 | 674 |
| | | D | 23.62 | 600 |
| AIR OUTLET | OPENING SIZE | E | 5.51 | 140 |
| | | F | 27.8 | 706 |
| | | G | 1.97 | 50 |
| | | H | 5.35 | 136 |
| AIR RETURN | OPENING SIZE | I | 30.79 | 782 |
| | | J | 7.48 | 190 |
| | | K | 1.57 | 40 |
| HANGER | BRACKERS | L | 36.22 | 920 |
| | | M | 20 | 508 |
| REFRIGERANT PIPE | LOCATIONS | H1 | 3.07 | 78 |
| | | H2 | 5.83 | 148 |
| | | W1 | 3.46 | 88 |
| | | W2 | 4.41 | 112 |
| OPERATING WEIGHT | lb (kg) | | 54 | 24.5 |

# Outdoor Unit Single Zone Heat Pump Ductless System

# Outdoor Model: 38MAQB18R--3

# Submittal Data

Job Data: ☐ Location: ☐

Buyer: ☐ Buyer P.O. #: ☐ Carrier #: ☐

Unit Number: ☐ Model Number: ☐

Performance Data Certified By: ☐ Date: ☐

**STANDARD FEATURES**

- Variable Speed (Inverter)
- Factory installed Base Pan Heater
- Factory installed Crankcase Heater
- Low Voltage Controls
- Auto-Restart function
- Condenser High Temp Protection
- Refrigerant Leakage Detection
- Modes: Cool, Heat, Dry, Fan, Auto
- Quiet operation
- Aluminum Golden Hydrophilic pre-coated fins

LIMITED WARRANTY*
- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years

*For residential applications.
See warranty for full details.

NOTE: Images for illustration purposes only. Actual models may be slightly different.

| | | | |
|---|---|---|---|
| System | Size | | 18 |
| | Outdoor Model | | 38MAQB18R--3 |
| Electrical | Voltage, Phase, Cycle | V/Ph/Hz | 208/230-1-60 |
| | MCA | A. | 18 |
| | MOCP - Fuse Rating | A. | 25 |
| Operating Range | Cooling Outdoor DB Min - Max | °F(°C) | -13~122 (-25~50) |
| | Heating Outdoor DB Min - Max | °F(°C) | -22~86 (-30~30) |
| Piping | Total Piping Length | ft (m) | 98 (30) |
| | Piping Lift* | ft (m) | 65 (20) |
| | Pipe Connection Size - Liquid | in (mm) | 1/4 (6.35) |
| | Pipe Connection Size - Suction | in (mm) | 1/2 (12.7) |
| Refrigerant | Refrigerant Type | | R410A |
| | Metering Device | | EEV |
| | Charge | lbs (kg) | 4.30 (1.95) |

* Condensing unit above or below indoor unit
For Compatibility See Product Data

| | | | |
|---|---|---|---|
| Outdoor Coil | Face Area | Sq. Ft. | 5.2 |
| | No. Rows | | 2 |
| | Fins per inch | | 18 |
| | Circuits | | 4 |
| Compressor | Type | | Rotary Inverter |
| | Model | | ATF235D22UMT |
| | Oil Type | | VG74 |
| | Oil Charge | Fl. Oz. | 23.6 |
| | Rated Current | RLA | 12.3 |
| Outdoor | Unit Width | in (mm) | 33.66 (855) |
| | Unit Height | in (mm) | 27.63 (702) |
| | Unit Depth | in (mm) | 14.17 (360) |
| | Net Weight | lbs (kg) | 118.2 (53.6) |
| | Airflow | CFM | 1,390 |
| | Sound Pressure | dB(A) | 57.5 |

Edition Date: 04/2019

# Performance

| | | | |
|---|---|---|---|
| High Wall | Indoor Model | | 40MAQB18B--3 |
| | Indoor Model | | 619PEQ018BBMA |
| | Indoor Model | | DHMSHAQ18XA3 |
| | Energy Star | | YES |
| | Cooling Rated Capacity | Btu/h | 17,000 |
| | Cooling Cap. Range Min - Max | Btu/h | 4,500~18,800 |
| | SEER | | 20.0 |
| | EER | | 12.5 |
| | Heating Rated Capacity (47°F) | Btu/h | 18,000 |
| | Heating Rated Capacity (17°F) | Btu/h | 10,800 |
| | Heating Maximum Capacity (17°F) | Btu/h | 18,000 |
| | Heating Maximum Capacity (5°F) | Btu/h | 18,000 |
| | Heating Cap. Range Min - Max | Btu/h | 5,500~24,000 |
| | HSPF | | 10.3 |
| | COP (47°F) | W/W | 3.14 |
| | COP (17°F) | W/W | 2.64 |
| | COP (5°F) | W/W | 1.63 |
| Cassette | Indoor Model | | 40MBCQ18---3 |
| | Energy Star | | YES |
| | Cooling Rated Capacity | Btu/h | 16,000 |
| | Cooling Cap. Range Min - Max | Btu/h | 4,500~18,000 |
| | SEER | | 20.0 |
| | EER | | 12.5 |
| | Heating Rated Capacity (47°F) | Btu/h | 18,000 |
| | Heating Rated Capacity (17°F) | Btu/h | 12,000 |
| | Heating Maximum Capacity (17°F) | Btu/h | 18,000 |
| | Heating Maximum Capacity (5°F) | Btu/h | 18,000 |
| | Heating Cap. Range Min - Max | Btu/h | 5,500~19,000 |
| | HSPF | | 10.5 |
| | COP (47°F) | W/W | 3.43 |
| | COP (17°F) | W/W | 2.55 |
| | COP (5°F) | W/W | 1.75 |
| Ducted | Indoor Model | | 40MBDQ18---3 |
| | Energy Star | | YES |
| | Cooling Rated Capacity | Btu/h | 16,500 |
| | Cooling Cap. Range Min - Max | Btu/h | 4,500~18,000 |
| | SEER | | 19.6 |
| | EER | | 12.5 |
| | Heating Rated Capacity (47°F) | Btu/h | 19,000 |
| | Heating Rated Capacity (17°F) | Btu/h | 13,400 |
| | Heating Maximum Capacity (17°F) | Btu/h | 20,200 |
| | Heating Maximum Capacity (5°F) | Btu/h | 19,000 |
| | Heating Cap. Range Min - Max | Btu/h | 5,500~19,000 |
| | HSPF | | 11.0 |
| | COP (47°F) | W/W | 2.93 |
| | COP (17°F) | W/W | 2.71 |
| | COP (5°F) | W/W | 1.75 |
| Console | Indoor Model | | 40MBFQ18---3 |
| | Energy Star | | YES |
| | Cooling Rated Capacity | Btu/h | 17,000 |
| | Cooling Cap. Range Min - Max | Btu/h | 6830-19800 |
| | SEER | | 19.9 |
| | EER | | 12.5 |
| | Heating Rated Capacity (47°F) | Btu/h | 18,000 |
| | Heating Rated Capacity (17°F) | Btu/h | 13,400 |
| | Heating Maximum Capacity (17°F) | Btu/h | 21,500 |
| | Heating Maximum Capacity (5°F) | Btu/h | 21,300 |
| | Heating Cap. Range Min - Max | Btu/h | 12900-29000 |
| | HSPF | | 10.6 |
| | COP (47°F) | W/W | 3.48 |
| | COP (17°F) | W/W | 2.38 |
| | COP (5°F) | W/W | 1.66 |

**Backward compatible with 40MBQB*C Cassette, 40MBQB*D Ducted**

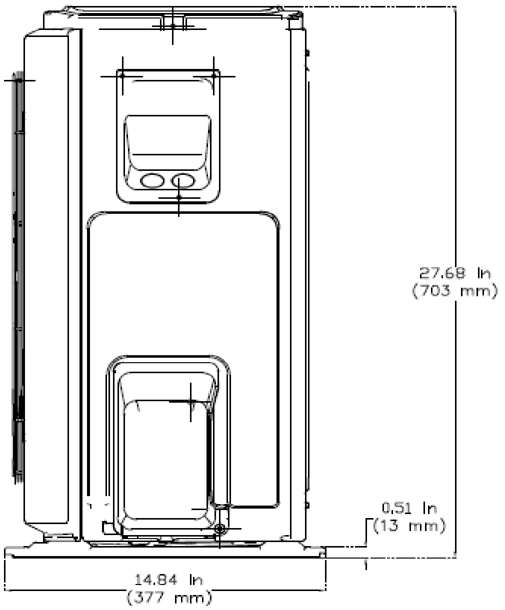
# *Performance*

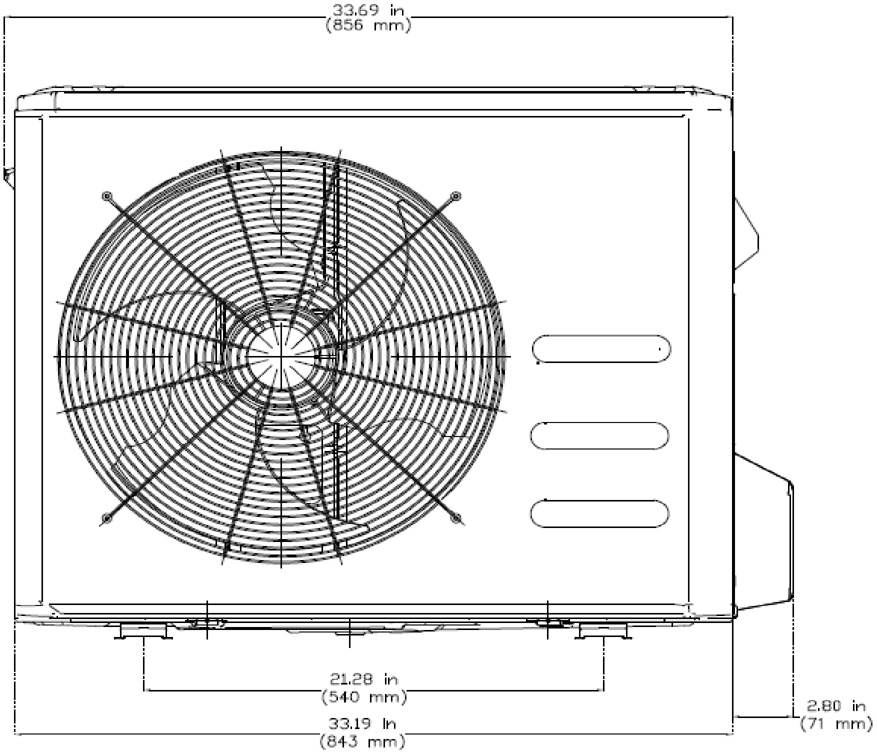
| | | | |
|---|---|---|---|
| **Vertical Fan Coil** | Indoor Model | | FMA4X1800AL |
| | Energy Star | | NO |
| | Cooling Rated Capacity | Btu/h | 17,200 |
| | Cooling Cap. Range Min - Max | Btu/h | 8500~28,000 |
| | SEER | | 15.5 |
| | EER | | 10.9 |
| | Heating Rated Capacity (47°F) | Btu/h | 17,800 |
| | Heating Rated Capacity (17°F) | Btu/h | 10,800 |
| | Heating Maximum Capacity (17°F) | Btu/h | 23,100 |
| | Heating Maximum Capacity (5°F) | Btu/h | 17,800 |
| | Heating Cap. Range Min - Max | Btu/h | 7,800~23,000 |
| | HSPF | | 9.8 |
| | COP (47°F) | W/W | 4.00 |
| | COP (17°F) | W/W | 2.50 |
| | COP (5°F) | W/W | 2.10 |
| **Horizontal Fan Coil** | Indoor Model | | FMC4Z1800AL |
| | Indoor Model | | FMU4Z1800AL |
| | Energy Star | | NO |
| | Cooling Rated Capacity | Btu/h | 17,600 |
| | Cooling Cap. Range Min - Max | Btu/h | 7,000~29,000 |
| | SEER | | 19.0 |
| | EER | | 11 |
| | Heating Rated Capacity (47°F) | Btu/h | 17,400 |
| | Heating Rated Capacity (17°F) | Btu/h | 12,200 |
| | Heating Maximum Capacity (17°F) | Btu/h | 23,700 |
| | Heating Maximum Capacity (5°F) | Btu/h | 19,500 |
| | Heating Cap. Range Min - Max | Btu/h | 9,000~24,000 |
| | HSPF | | 10.3 |
| | COP (47°F) | W/W | 3.78 |
| | COP (17°F) | W/W | 2.76 |
| | COP (5°F) | W/W | 2.18 |

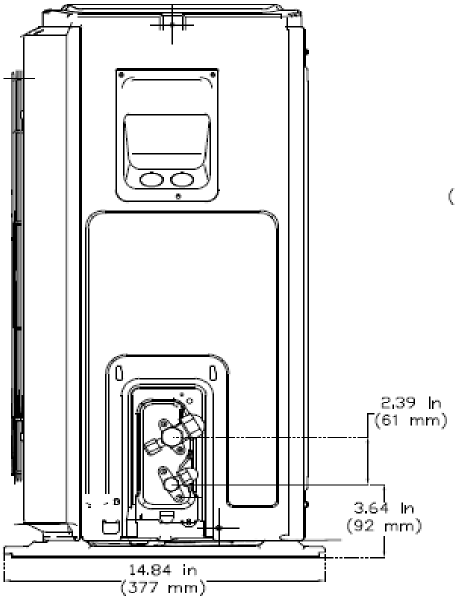
**Multi-family applications with the FMA4, FMC and FMU fan coils require the 24V interface 2nd Generation KSAIC0301230 and the Piping Adaptor Kit RCD# 331831-70 to facilitate piping installation when removing the TXV kit from the indoor unit**

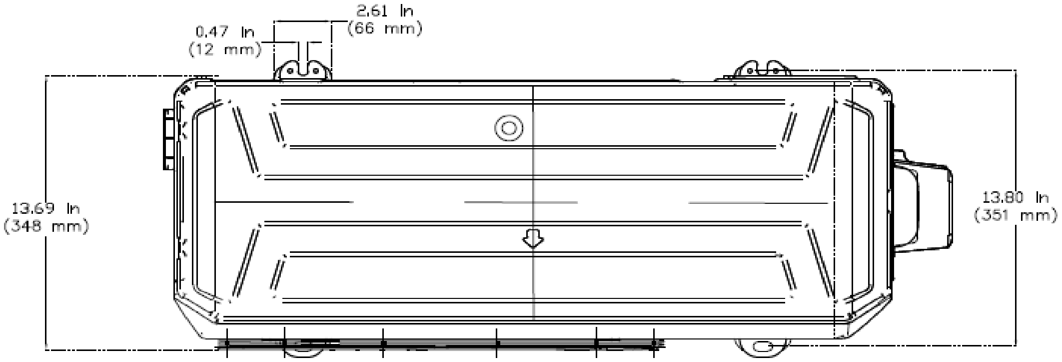
# Construction View

**Outdoor Model:** **38MAQB18R--3**









**Bell & Gossett**
a xylem brand

**SUBMITTAL**
**B-880.1D**

---

**JOB:** Norco College

**REPRESENTATIVE:** Dawson Company

**UNIT TAG:** HHWP-1G_ 2G
**ENGINEER:** DLR Group
**CONTRACTOR:**

**ORDER NO.**
**SUBMITTED BY:**
**APPROVED BY:**

**DATE:** 10.12.21
**DATE:**
**DATE:**

---

# Series e-1510
# 1.25AD
## Base Mounted End Suction Pump

**DESCRIPTION:**
The Series e-1510 is available in 26 sizes and a variety of configuration options that enable customization and flexibility to fit a broad range of operating conditions. Flows up to 4950 GPM heads to 534 feet.

### SPECIFICATIONS

FLOW 55 (GPM) HEAD 45 (FT)
HP 1.5 RPM 1800
VOLTS 208-230/460
CYCLE 60 PHASE 3
ENCLOSURE Baldor TEFC Nema Premium Efficient
APPROX. WEIGHT 159
SPECIALS

**Note: Equipped with NEOPRENE coupling**

### MATERIALS OF CONSTRUCTION
☒ Stainless Steel Fitted

### FEATURES
☒ ANSI/OSHA Coupling Guard
☒ Center Drop Out Spacer Coupling
☒ Fabricated Heavy Duty Baseplate

### MAXIMUM WORKING PRESSURE
☒ 175 psi (12 bar) W.P.

### PUMP VARIABLE SPEED CONTROL
☐ Integrated Technologic® Sensorless Control (ITSC)
☐ Integrated Technologic® (IT)
☐ External input by others
☐ Pressure Sensor(s)
☐ Differential Pressure Sensor(s)
☐ Flow Sensor(s) ☐ By Others

### PARALLEL PUMPING SYSTEM
☐ Sensorless Control (ITSC)
☐ Sensored ControL (IT)

### PARALLEL SENSORLESS CONTROLLER
☐ Pump Mounted
☐ Wall Mounted
____ Pumps in Parallel

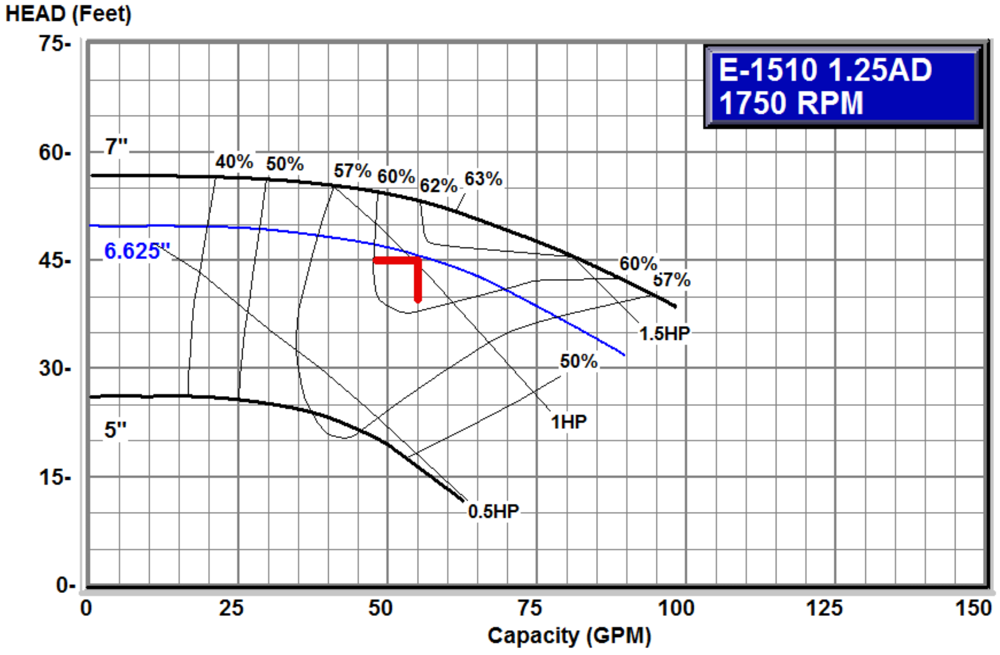
### TYPE OF SEAL
☒ Standard Seal
(Buna-Carbon/Ceramic)
-20° to 225° F (-29° to 107° C)
Max Working Pressure 175 psi (12 bar)

☐ -F Standard Seal w/ Flush Line
(Buna-Carbon/Ceramic)
-20° to 225° F (-29° to 107° C)
Max Working Pressure 175 psi (12 bar)

☐ -S Stuffing Box construction w/ Flushed Mechanical Single Seal
(EPR-Tungsten Carbide/Carbon)
-20° to 250° F (-29° to 121° C)
Max Working Pressure 175 psi (12 bar)

☐ -PF Stuffing Box Construction w/ Flushed Packing
(Graphite Impregnated Teflon)
0° to 250° F (-17° to 121° C)
Max Working Pressure 175 psi (12 bar)

---



**Design Capacity =55.0 GPM**
**Design Head =45.0 Feet**

**Suction Size = 1.5 "**
**Suct. Velocity = 8.7 fps**
**Discharge Size = 1.25 "**
**Disc. Velocity = 11.8 fps**

**Min. Imp. Dia. = 5 "**
**Max. Imp. Dia. = 7 "**
**Cut Dia. = 6.625 "**

**Max. Flow = 90 GPM**
**B.E.P. Flow = 61 GPM**

**Eff. @ Duty-Point = 61.73 %**
**Motor Size =1.5 HP**

**B.H.P. @**
**Duty-Point = 1.02 BHP**
**Max. B.H.P. for**
**Imp. Cut = 1.37 BHP**

Bell & Gossett
a xylem brand

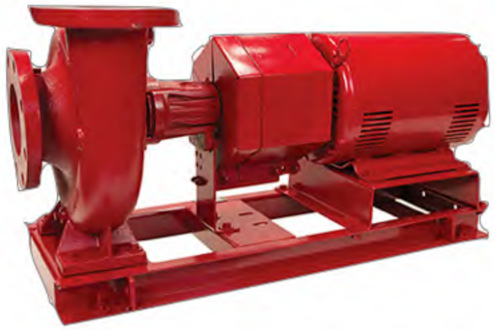
# Submittal

| | | |
|---|---|---|
| **Job/Project:** | **Representative:** Dawson Company | |
| **ESP-Systemwize:** WIZE-16D5AB **Created On:** 08/28/2019 | **Phone:** (626) 797-9710 | |
| **Location/Tag:** | **Email:** sales@dawsonco.com | |
| **Engineer:** | **Submitted By:** | **Date:** |
| **Contractor:** | **Approved By:** | **Date:** |

## Base Mounted End Suction Pump

**Series: e-1510**

**Model: 1.25AD**



### Features & Design

- ANSI/OSHA Coupling Guard
- Center Drop Out Spacer Coupling
- Fabricated Heavy Duty Baseplate
- Internally Self-Flushing Mechanical Seal

*The Bell & Gossett Series e-1510 is available in 26 sizes and a variety of configuration options that enable customization and flexibility to fit a broad range of operating conditions.

http://bellgossett.com/pumps-circulators/end-suction-pumps/e-1510/

### Pump Selection Summary

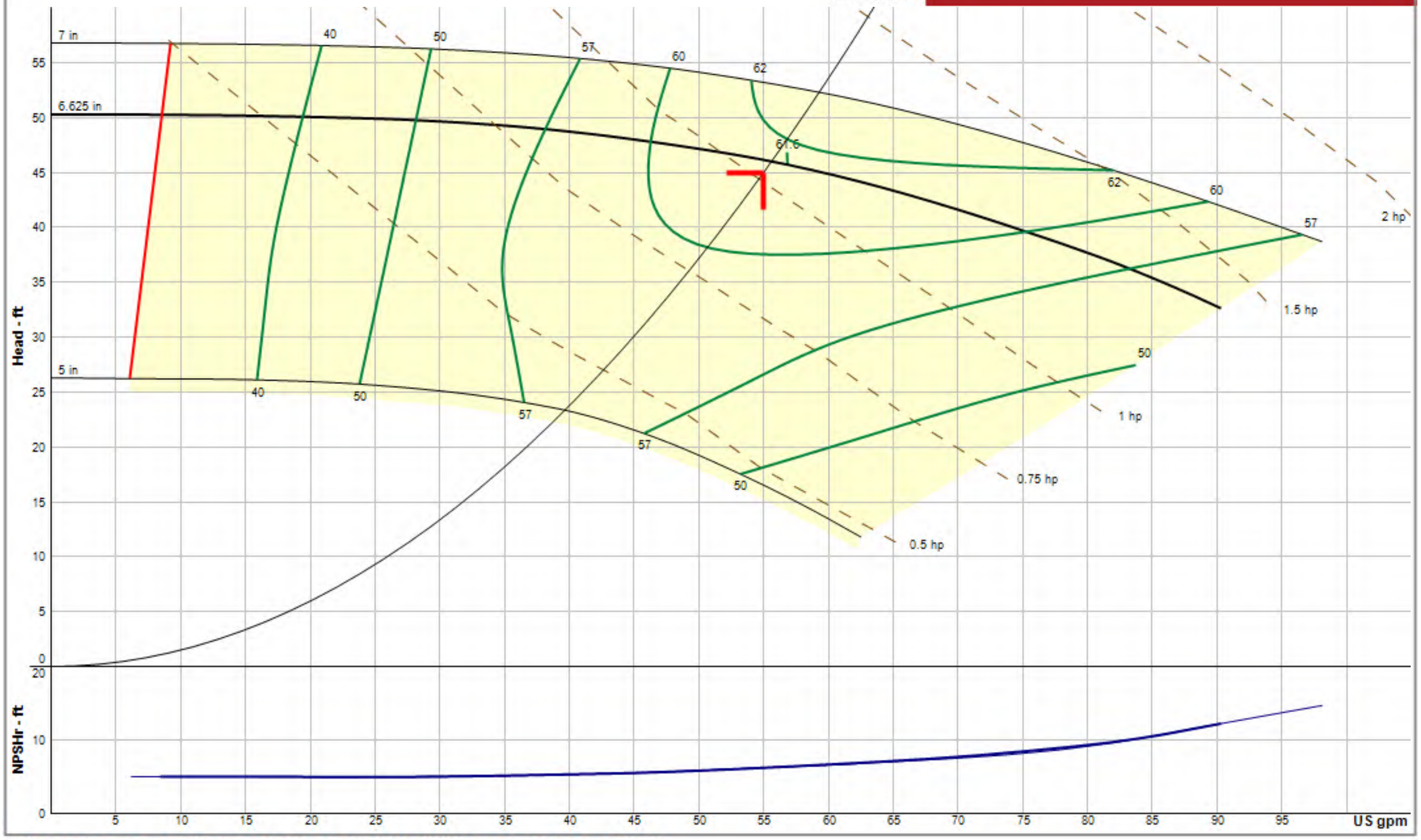
| | |
|---|---|
| Duty Point Flow | 55 US gpm |
| Duty Point Head | 45 ft |
| Control Head | 0 ft |
| Duty Point Pump Efficiency | 61 % |
| Part Load Efficiency Value (PLEV) | 0.0 % |
| Impeller Diameter | 6.625 in |
| Motor HP | 1.5 hp |
| Duty Point Power | 1.05 bhp |
| Motor Speed | 1800 rpm |
| RPM @ Duty Point | 1750 rpm |
| NPSHr | 6.3 ft |
| Minimum Shutoff Head | 50.3 ft |
| Minimum Flow at RPM | 8.52 US gpm |
| Flow @ BEP | 56.8 US gpm |
| Fluid Temperature | 68 °F |
| Fluid Type | Water |
| Pump Floor Space Calculation | 2.64 ft² |

## Performance Curve

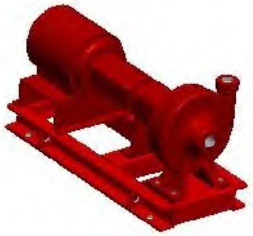
**Energy Efficiency Ratings:**
Pump & Motor PEIcl: 0.84 ERcl: 16
Pump, Motor & Drive: PEIvl: 0.47 ERvl: 53

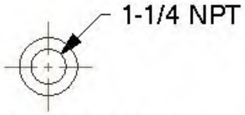
PREMIUM EFFICIENCY PRODUCT

**e-1510**
**1.25AD**
**1750 RPM**

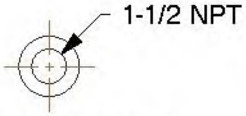


Performance curve meets 14.6 / ISO 9906 acceptance criteria

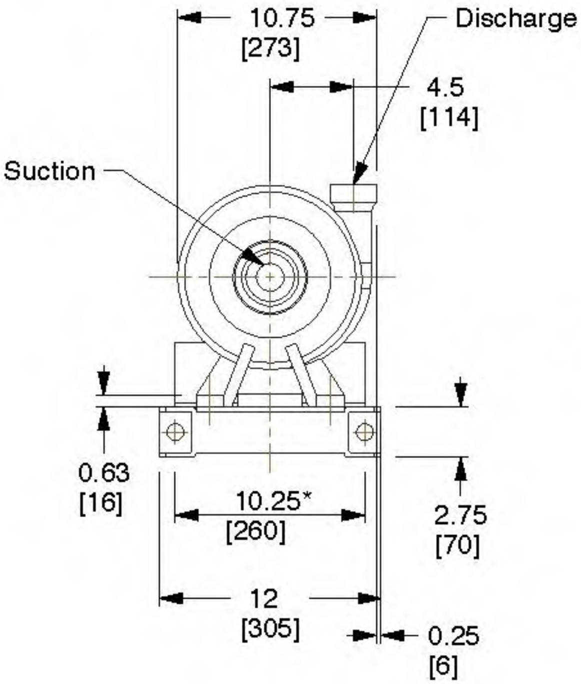


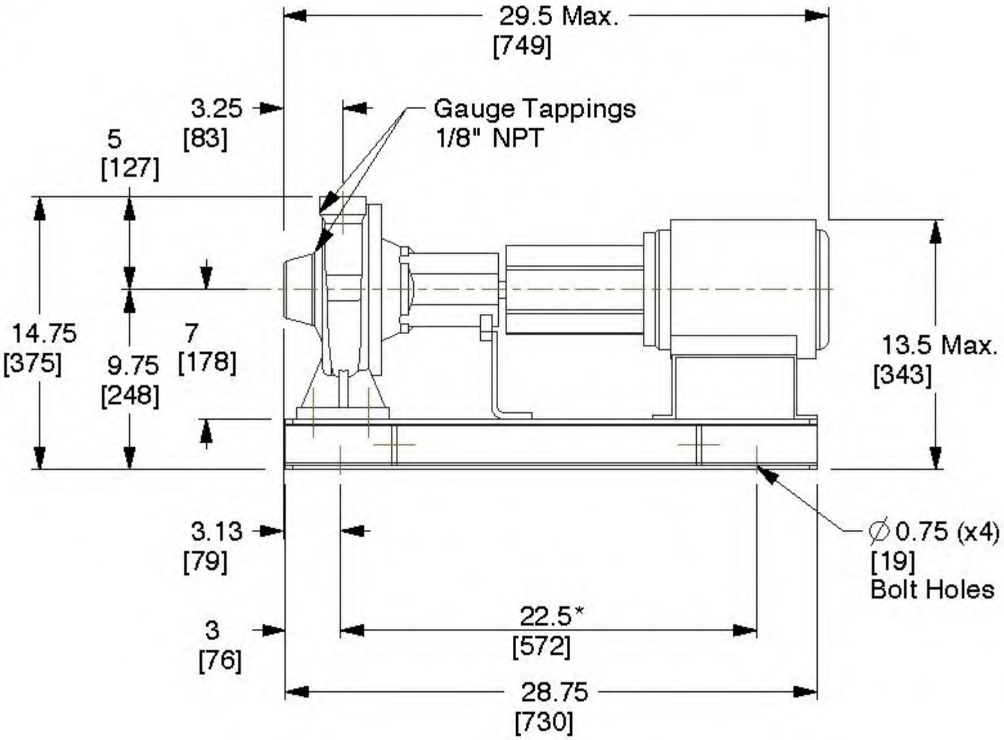


**1-1/4 NPT DISCHARGE DETAILS**



**1-1/2 NPT SUCTION DETAILS**





* Dist. Between Bolt Holes

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8200 N. Austin Ave.
Morton Grove, IL 60053, USA

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Dimensions are subject to change

Not to be used for construction unless certified

# BG-E1510-1P25AD-SS-145T

Series e-1510 Centrifugal Pumps - Base Mounted

Seal Type: Standard Seal | Motor Frame: 145T | Frame Type:S

| | | |
|---|---|---|
| Dimensions : IN (mm) | Scale : N.T.S. | Submittal # : B-880.1C |

## Standard Mechanical Configuration

| Standard Mechanical Seal | SM, LG, & XL Bearing Frames | ES Bearing Frame |
|---|---|---|
| Temperature Range | -20 to 225°F | -20 to 225°F |
| Maximum Pressure | 175 PSI | 175 PSI |
| pH Limitations | 7.0 - 9.0 | 7.0 - 9.0 |
| Elastomer | Buna | Buna |
| Rotating Face | Carbon | Carbon |
| Stationary Face | Ceramic | Silicon Carbide |
| Hardware | Stainless Steel / Brass | Stainless Steel |

| Mechanical Seal Options | SM, LG, & XL Bearing Frames | | |
|---|---|---|---|
| Temperature Range | -20 to 250°F | -10 to 225°F | -20 to 250°F |
| Maximum Pressure | 175 PSI | 175 PSI | 175 PSI |
| pH Limitations | 7.0 - 11.0 | 7.0 - 9.0 | 7.0 - 12.5.0 |
| Elastomer | EPR (Ethylene Propylene Rubber) | FKM (Viton™ or Fluoroelastomer) | EPR (Ethylene Propylene Rubber) |
| Rotating Face | Carbon | Carbon | Silicon Carbide |
| Stationary Face | Tungsten Carbide | Ceramic | Silicon Carbide |
| Hardware | Stainless Steel / Brass | Stainless Steel | Stainless Steel |

| Mechanical Seal Options | ES Bearing Frame | | |
|---|---|---|---|
| Temperature Range | -20 to 250°F | -10 to 225°F | -20 to 250°F |
| Maximum Pressure | 175 PSI | 175 PSI | 175 PSI |
| pH Limitations | 7.0 - 11.0 | 7.0 - 9.0 | 7.0 - 12.5.0 |
| Elastomer | EPR (Ethylene Propylene Rubber) | FKM (Viton™ or Fluoroelastomer) | EPR (Ethylene Propylene Rubber) |
| Rotating Face | Silicon Carbide | Carbon | Silicon Carbide |
| Stationary Face | Tungsten Carbide | Silicon Carbide | Silicon Carbide |
| Hardware | Stainless Steel / Brass | Stainless Steel | Stainless Steel |

## Stuffing Box Configuration

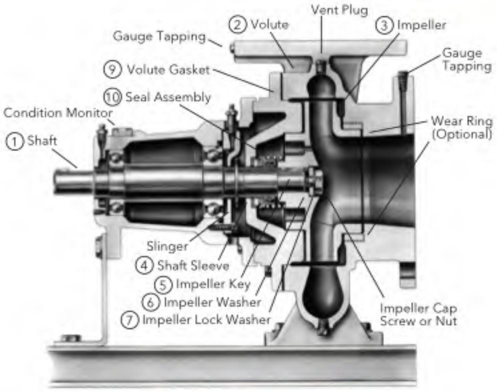
| Mechanical Seal | SM, LG, & XL Bearing Frames |
|---|---|
| Temperature Range | -20 to 250°F* |
| Maximum Pressure | 175 PSI (Optional 250 PSI) |
| pH Limitations | 7.0 - 11.0 |
| Elastomer | EPR (Ethylene Propylene Rubber) |
| Rotating Face | Tungsten Carbide |
| Stationary Face | Carbon |
| Hardware | Stainless Steel |

| Packing Option | |
|---|---|
| Temperature Range | 0 to 250°F |
| Maximum Pressure | 175 PSI |
| pH Limitations | 7.0 - 9.0 |
| Material | Braided Graphite Impregnated PTFE |

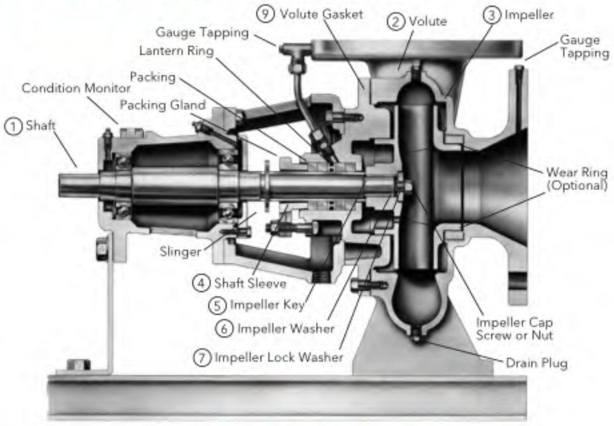
* For operating temperatures above 250°F a cooled flush is required and is recommended for temperatures above 225°F for optimum seal life. On closed systems cooling is accomplished by inserting a small heat exchanger in the flush line to cool the seal flushing fluid.

Flush-line Filters and Sediment Separators are available on special request.

## Materials of Construction



**Standard Configuration**



**Optional – S Configuration**

| Description | SM, LG, & XL Bearing Frames | ES Bearing Frame |
|---|---|---|
| 1 Shaft | ASTM 108 Grade 1144 | ASTM 108 Grade 1144 |
| 2 Volute | Cast Iron ASTM A48 Class 30B | Cast Iron ASTM A48 Class 30B |
| 3 Impeller | ASTM A743 Grade CF8 - 304 Stainless Steel | ASTM A743 Grade CF8 - 304 Stainless Steel |
| 4 Shaft Sleeve | ASTM 312 Grade TP304 - 304 Stainless Steel | ASTM 312 Grade TP304 - 304 Stainless Steel |
| 5 Impeller Key | #304 Stainless Steel | NA |
| 6 Impeller Washer | Steel | NA |
| 7 Impeller Lock Washer | #304 Stainless Steel (18-8 XL FRM) | NA |
| 8 Impeller Cap Screw | #304 Stainless Steel | NA |
| 8 Impeller Nut | NA | 316 Stainless Steel |
| 9 Volute Gasket | Cellulose Fiber | Cellulose Fiber |
| 10 Seal Assembly | Reference Seal Data Tables | Reference Seal Data Tables |

## Pump Options

- Stainless Steel Volute Wear Ring
- Galvanized Steel Drip Pan
- Stainless Steel Shaft
- Rexnord Omega Spacer Coupling
- Falk T31 Spacer Coupling
- External Flush Line
- Stuffing Box Configuration
- Epoxy Coated Internal Cast Iron Components
- Special Impeller Balancing (ISO 1940 G2.5 or G1.0)
- Certified Performance Tests (Per HI Standard 14.6)
- 250 PSI Working Pressure

Xylem Inc.
8200 N. Austin Avenue, Morton Grove, IL 60053
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WIZE-16D5AB

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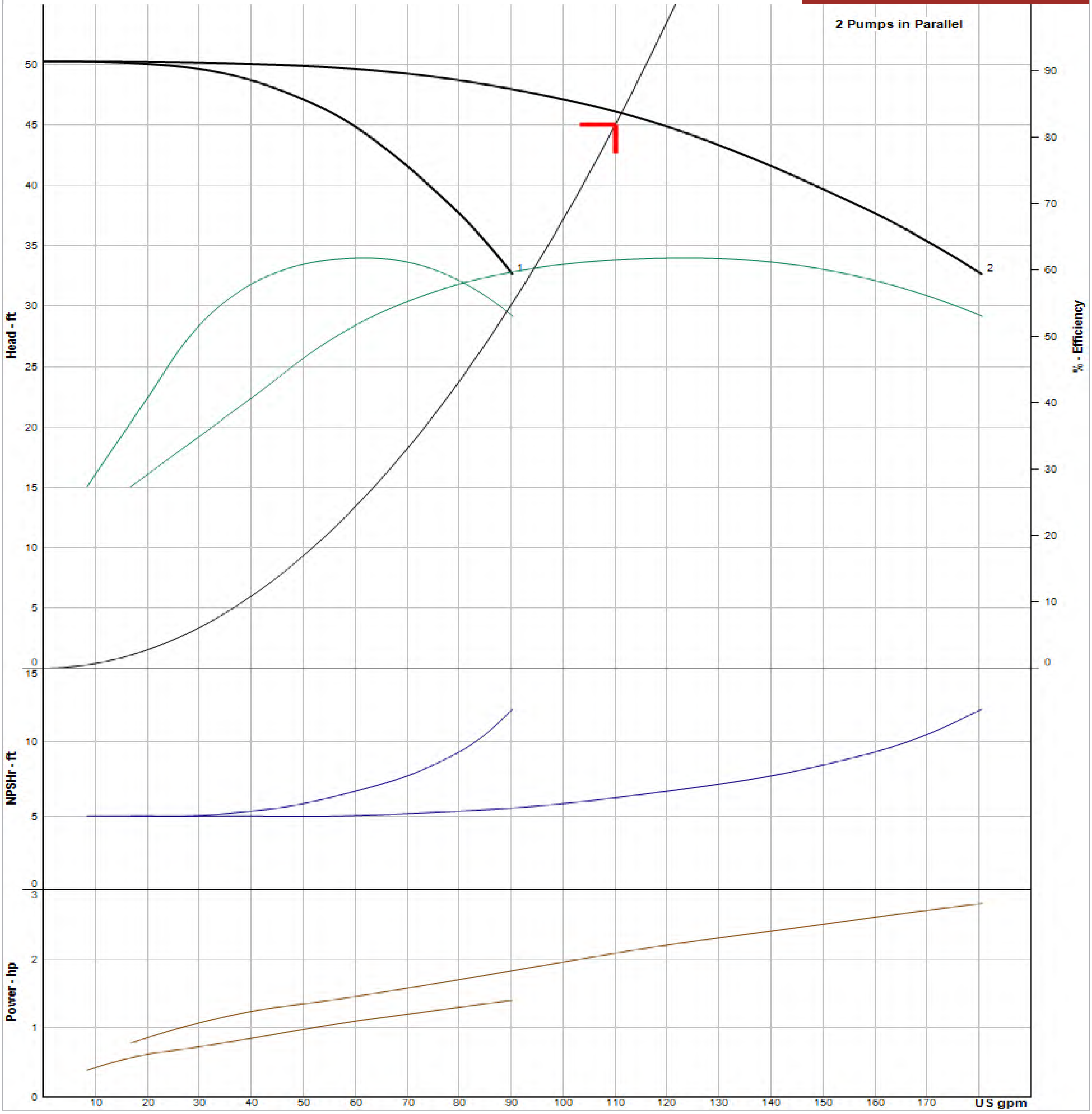
## Performance Curve

**e-1510**
**1.25AD**



## Pump Selection Summary

| | | | |
|---|---|---|---|
| Pump Capacity | 55 US gpm | RPM @ Duty Point | 1750 |
| Pump Head | 45 ft | Impeller Diameter | 6.625 in |
| Control Head | 0 ft | NPSHr | 6.3 |
| Duty Point Pump Efficiency | 61 % | Motor Power | 1.5 hp |
| Pump PLEVv Efficiency | 0.0 % | Motor Speed | 1800 rpm |
| Duty point Power | 1.05 bhp | Minimum Shutoff Head | 50.3 ft |
| Minimum Flow at RPM | 8.52 US gpm | Fluid Type | Water |
| Flow @ BEP | 56.8 US gpm | Fluid Temperature | 68 °F |
| | | Floor Space | 2.64 ft$^2$ |

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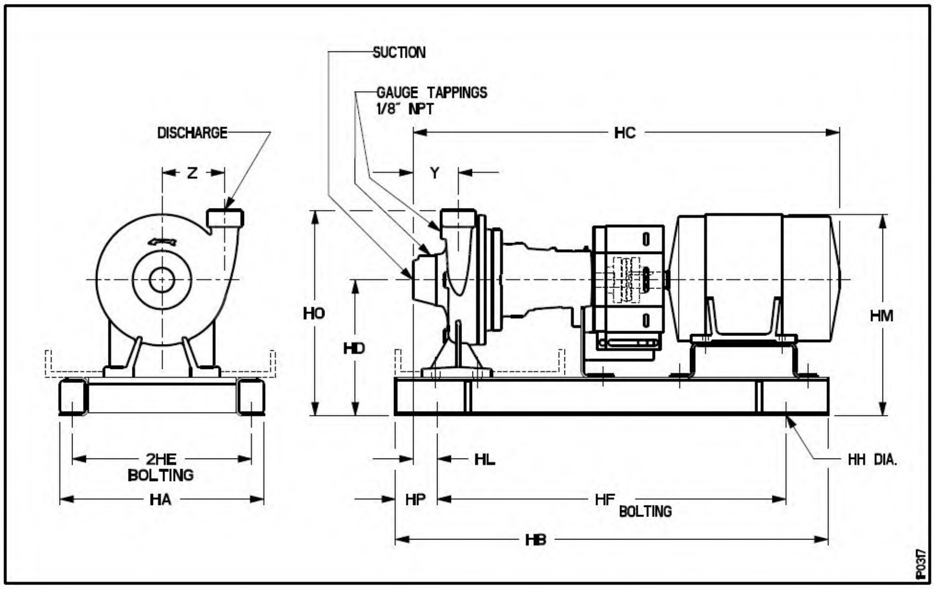
# Series e-1510 1.25 AD Base Mounted End Suction Pump

**B-880.1D**



| NOZZLE SIZES | |
|---|---|
| Discharge | 1.25 N.P.T. |
| Suction | 1.5 N.P.T. |

## DIMENSIONS - Inches (mm)

### STANDARD SEAL

| MOTOR FRAME | HA | HB | HC MAX | HD | 2HE | HF | HH | HL | HM MAX | HO | HP | Y | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | "S" FRAME | | | | | | | | | | | | |
| 56 | 12 (305) | 28.75 (730) | 28.38 (721) | 9.75 (248) | 10.25 (260) | 22.5 (572) | .75 (19) | 3.13 (79) | 13.38 (340) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 143T | 12 (305) | 28.75 (730) | 28.5 (724) | 9.75 (248) | 10.25 (260) | 22.5 (572) | .75 (19) | 3.13 (79) | 13.5 (343) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| ➡ 145T | 12 (305) | 28.75 (730) | 29.5 (749) | 9.75 (248) | 10.25 (260) | 22.5 (572) | .75 (19) | 3.13 (79) | 13.5 (343) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 182T | 14.63 (371) | 31 (787) | 32.25 (819) | 9.75 (248) | 12.88 (327) | 25 (635) | .75 (19) | 1.75 (44) | 15 (381) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 184T | 14.63 (371) | 31 (787) | 33 (838) | 9.75 (248) | 12.88 (327) | 25 (635) | .75 (19) | 1.75 (44) | 15 (381) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 213T | 14.63 (371) | 34.63 (879) | 35.5 (902) | 9.75 (248) | 12.88 (327) | 28.63 (727) | .75 (19) | 1.75 (44) | 15.63 (397) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 215T | 14.63 (371) | 34.63 (879) | 37 (940) | 9.75 (248) | 12.88 (327) | 28.63 (727) | .75 (19) | 1.75 (44) | 15.63 (397) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 254T | 14.63 (371) | 39.38 (1000) | 40.75 (1035) | 10.75 (273) | 12.88 (327) | 33.38 (848) | .75 (19) | 1.75 (44) | 17.63 (448) | 15.75 (400) | 3 (76) | 3.25 (83) | 4.5 (114) |

### STUFFING BOX

| MOTOR FRAME | HA | HB | HC MAX | HD | 2HE | HF | HH | HL | HM MAX | HO | HP | Y | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | "S" FRAME | | | | | | | | | | | | |
| 56 | 14.63 (371) | 34.63 (879) | 32 (813) | 9.75 (248) | 12.88 (327) | 28.63 (727) | .75 (19) | 3.13 (79) | 13.38 (340) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 143T | 14.63 (371) | 34.63 (879) | 32.13 (816) | 9.75 (248) | 12.88 (327) | 28.63 (727) | .75 (19) | 3.13 (79) | 13.5 (343) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 145T | 14.63 (371) | 34.63 (879) | 33.13 (841) | 9.75 (248) | 12.88 (327) | 28.63 (727) | .75 (19) | 3.13 (79) | 13.5 (343) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 182T | 14.63 (371) | 34.63 (879) | 35.75 (908) | 9.75 (248) | 12.88 (327) | 28.63 (727) | .75 (19) | 1.75 (44) | 15 (381) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 184T | 14.63 (371) | 34.63 (879) | 36.5 (927) | 9.75 (248) | 12.88 (327) | 28.63 (727) | .75 (19) | 1.75 (44) | 15 (381) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 213T | 14.63 (371) | 39.38 (1000) | 39.13 (994) | 9.75 (248) | 12.88 (327) | 33.38 (848) | .75 (19) | 1.75 (44) | 15.63 (397) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 215T | 14.63 (371) | 39.38 (1000) | 40.63 (1032) | 9.75 (248) | 12.88 (327) | 33.38 (848) | .75 (19) | 1.75 (44) | 15.63 (397) | 14.75 (375) | 3 (76) | 3.25 (83) | 4.5 (114) |
| 254T | 16 (406) | 46.5 (1181) | 44.38 (1127) | 12 (305) | 14 (356) | 36.5 (927) | .88 (22) | 2.88 (73) | 18.88 (479) | 17 (432) | 5 (127) | 3.25 (83) | 4.5 (114) |

**Dimensions are subject to change. Not to be used for construction purposes unless certified.**

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## Octave Band Data to Broadband

**Project: Norco Kinesiology Building**

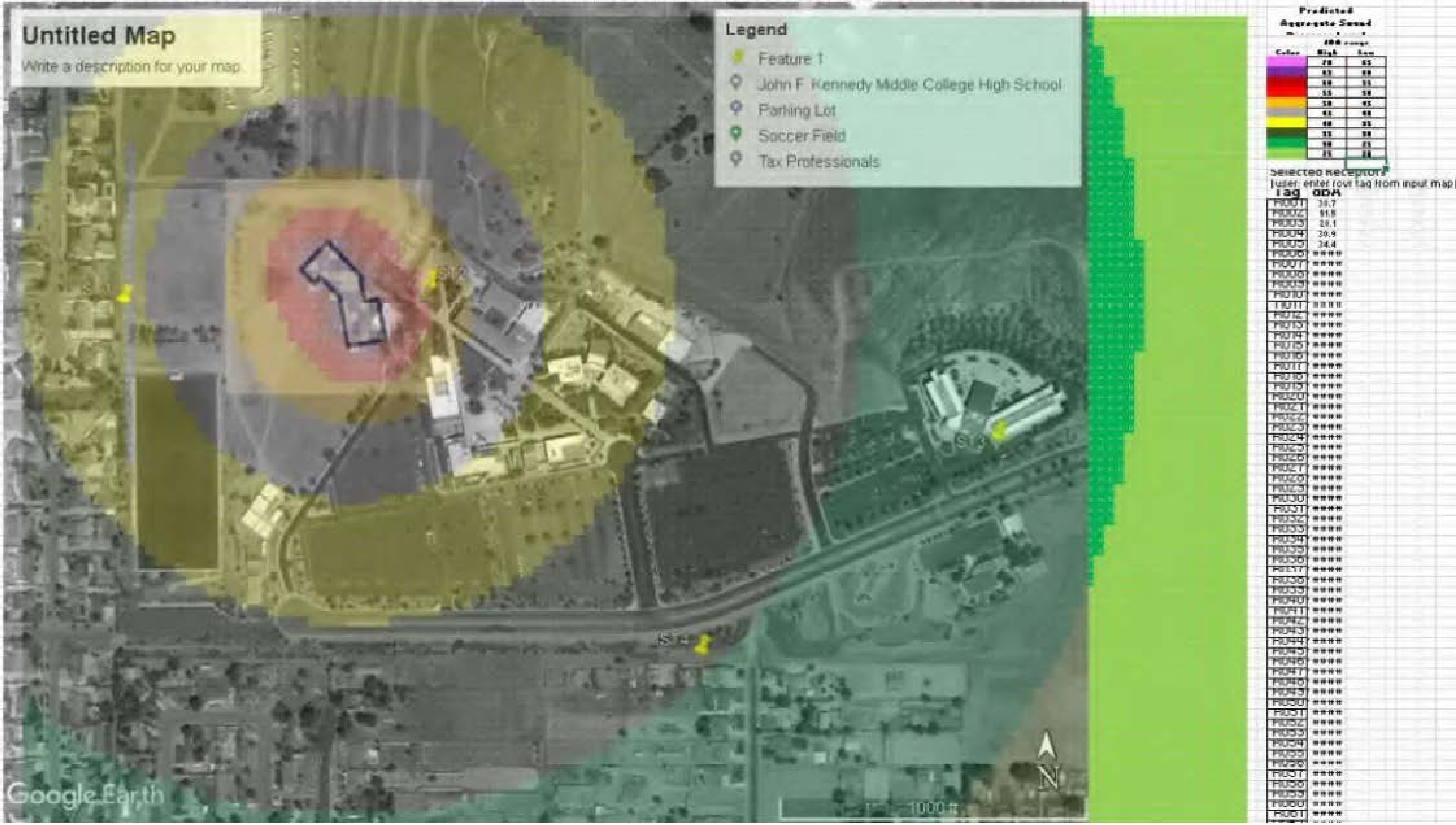
| TIME | 63 | 125 | 250 | 500 | 1K | 2K | 4K | 8K |
|---|---|---|---|---|---|---|---|---|
| 182 Plenum Fan - Outlet | 73 | 78 | 82 | 77 | 74 | 70 | 69 | 63 |
| 182 Plenum Fan - Inlet | 80 | 76 | 81 | 74 | 69 | 70 | 68 | 66 |
| 182 Plenum Fan - Outlet | 73 | 78 | 82 | 77 | 74 | 70 | 69 | 63 |
| 182 Plenum Fan - Inlet | 80 | 76 | 81 | 74 | 69 | 70 | 68 | 66 |
| 200 Plenum Fan - Outlet | 83 | 84 | 93 | 85 | 83 | 84 | 81 | 73 |
| 200 Plenum Fan - Inlet | 77 | 77 | 93 | 83 | 78 | 77 | 77 | 77 |
| Unweighted Energy Average (dB): | **86.9** | **87.1** | **96.6** | **88.2** | **85.2** | **85.3** | **83.1** | **79.1** |

Cobined Broadband PWL (dBA): **93.1** Not including the enclosure

## Sound Power Level, Sound Pressure Level

Per Diehl, pg. 80:
(Ref:  Diehl, George M.  Machinery Acoustics, 1974.)
Lp=Ld=Lw-20*Log(R)+2.5, in feet - true for a free field above a reflecting plane.

| | Test Lw (dBA) | Test R (Ft) | Diehl (Reflecting Plane): Lp (dBA) |
|---|---|---|---|
| AHU | 93.0 | 3.3 | 85.2 |
| CH-1 | 73.0 | 3.3 | 65.2 |
| FCU/CU | 65.3 | 3.3 | 57.5 |
| EF | 74.0 | 3.3 | 66.2 |



**Predicted Aggregate Sound**

| Color | dBA range<br>High | Low |
|---|---|---|
| 🟪 | 70 | 65 |
| 🟪 | 65 | 60 |
| 🟥 | 60 | 55 |
| 🟥 | 55 | 50 |
| 🟧 | 50 | 45 |
| ⬜ | 45 | 40 |
| 🟨 | 40 | 35 |
| 🟩 | 35 | 30 |
| 🟩 | 30 | 25 |
| 🟩 | 25 | 20 |

Selected Receptors
(user: enter row tag from input map)

| Tag | dBA |
|---|---|
| R001 | 30.7 |
| R002 | 51.5 |
| R003 | 20.1 |
| R004 | 30.9 |
| R005 | 34.4 |
| R006 | #### |
| R007 | #### |
| R008 | #### |
| R009 | #### |
| R010 | #### |
| R011 | #### |
| R012 | #### |
| R013 | #### |
| R014 | #### |
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| R017 | #### |
| R018 | #### |
| R019 | #### |
| R020 | #### |
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| R027 | #### |
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