Preliminary Environmental Assessment
Los Altos High School Expansion, Los Altos

Prepared for:

Mountain View - Los Altos Union High School District
Mountain View, California

August 14, 2020

Prepared by:
McCloskey Consultants, Inc.

PRELIMINARY ENVIRONMENTAL ASSESSMENT

LOS ALTOS HIGH SCHOOL EXPANSION

201 Almond Avenue

Los Altos, California

August 14, 2020

Prepared for:

MOUNTAIN VIEW-LOS ALTOS

UNION HIGH SCHOOL DISTRICT

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EXECUTIVE SUMMARY

On behalf of the Mountain View Los Altos Union High School District (MVLAUHSD), McCloskey Consultants, Inc. (MCI) has prepared this Preliminary Environmental Assessment (PEA) Report for the proposed renovation/redevelopment in the northeastern portion of the existing Los Altos High School (LAHS) located at 201 Almond Avenue, in Los Altos, Santa Clara County, California (the "Site") (Figure 1). Los Altos is located in the northern portion of Santa Clara County, southwest of the southern San Francisco Bay.

MCI understands that current redevelopment plans include: (1) demolition of one permanent classroom building (600 Block), four portable structures, an existing small gym and associated exterior area, and (2) construction of a new classroom building and auxiliary gym in place of the existing buildings. The expansion will include the addition of 15 classrooms, with an expected increase in student population of up to approximately 410 students.

This PEA is an initial investigation that provides the information necessary to evaluate if conditions exist at the Site that could pose a risk to human health or the environment. Under Senate Bill 475 (1989), the preparation of a PEA is a formal step in the site review process of the Department of Toxic Substances Control (DTSC). This report is to be reviewed by the DTSC to determine the need for further action at the Site.

The scope of work described herein was presented to the DTSC in the document entitled *"Preliminary Assessment Workplan, Los Altos High School Expansion"* (Workplan), dated May 15, 2020 (McCloskey, 2020), and was developed to address DTSC Schools Program site sampling guidance documents. The Workplan was reviewed and approved by the DTSC on May 26, 2020 prior to implementation of the sampling program.

Summary of Previous Assessment, Soil Sampling and Removal

A Phase I Environmental Site Assessment (ESA) was initially performed across the entire school to identify on and off-site potential environmental concerns that could impact the redevelopment area (McCloskey, 2018a). This was followed by a Phase II ESA (McCloskey, 2018b) to evaluate potential environmental concerns. The Phase I and Phase II ESAs were conducted using ASTM and DTSC documents as guidance. Both these evaluations were conducted by MCI prior to engaging the DTSC in an environmental oversight agreement (October 10, 2019). Demolition of the buildings in the expansion area was completed by October 25, 2019. The removed buildings included the 600-Block classroom building, the small gym, the portable classrooms P-11-P-12 and the portable classrooms P-13-P-16. The demolition included removal

of all the concrete and asphalt in the expansion area and the oil stained concrete and asphalt in the hazardous waste storage area on the northern side of the 600-Block classroom building.

The Site was cultivated with orchards from at least the late-1930s through the mid-1950s. Pesticides and herbicides were commonly applied to row crops and orchards and the presence of residual concentrations of OCPs and arsenic were therefore potential environmental concerns. To address this concern, shallow soil samples were collected at four locations across the expansion area. Two of the samples had detectible concentrations of OCPs but none of the concentrations detected exceed their respective DTSC or USEPA thresholds for school uses. Arsenic was detected in all of the soil samples analyzed. None of the concentrations detected in the soil samples exceeded the regional maximum naturally-occurring background concentration.

Exposed soils and previously exposed soils around the building perimeters were sampled in the Phase II ESA, and identified lead and organochlorine pesticides (OCP) impacted soils around one of the former structures (small gym). Prior to redevelopment of the Site, the impacted soils that exceeded DTSC and/or USEPA regulatory thresholds for school (residential) uses were removed from the Site and disposed at an appropriately-licensed landfill. Confirmation sampling was performed on the excavations to verify all the impact soil was removed prior to mass grading activities.

Bedrock and sediments that could contain naturally-occurring asbestos (NOA) are less than 10 miles from the Site and the soils were tested at nine locations for the presence of naturally-occurring asbestos (NOA) in accordance with DTSC Schools Program guidelines. Eight of the nine samples exceeded the DTSC School Unit screening criteria of 0.01%.

PEA Sampling and Results Summary

Under a DTSC approved PEA Workplan (McCloskey, 2020), additional soil sampling was performed at the Site to evaluate the potential presence of chemicals that could affect the proposed school development. Soil samples were collected from the following areas on the Site: additional building perimeters, areas where residues may have migrated in stormwater runoff to exposed soils, and additional samples to evaluate historical agricultural residues. A total of 19 soil samples (including two duplicate samples) were collected at depth intervals ranging from 0-½ feet bgs to 1½ to 2 feet below ground surface (bgs), depending on the sample location, the presence of absence of asphalt, and the target analytes. Analyses included lead, OCPs and arsenic, and polychlorinated biphenyls (PCBs).

Detected concentrations were compared to DTSC modified Screening Levels (DTSC-SLs) presented in the DTSCs Office of Human and Ecological Risk ("HERO") guidance document Human Health Risk Assessment (HHRA) Note 3 dated April 2019 (HERO, 2019), Regional Screening Levels (RSLs) established by the USEPA Region 9 (USEPA, May 2020) and a Site-specific background concentration for arsenic.

The following summarizes the results of the PEA additional sampling:

- Lead was detected exceeding the DTSC-SLs concentration of 80 mg/Kg at only one location;
- OCPs were detected in seven soil samples but none of the concentrations exceeded their respective the DTSC-SLs or USEPA RSLs;
- Arsenic was detected in soil samples at concentrations up to 11.5 mg/Kg, but plotted using DTSC-recommended statistical methods (normal, gamma and lognormal Q-Q scatter plots, USEPA ProUCL software) indicate that this maximum detected concentration to be naturally occurring; and,
- PCBs were not detected exceeding the laboratory reporting limit in any of the soil samples analyzed.

Conclusions and Recommendations

The results of the Phase II ESA, remedial activities and PEA investigation indicate that the remedial activities performed before DTSC involvement at the Site removed contaminants exceeding regulatory threshold concentrations for school uses everywhere except at one location. This sample was collected at the eastern edge of the Site in a narrow strip of exposed soil between an asphalt roadway and the property fence. The origin of the lead is unclear but additional sampling is recommended along this strip of soil to determine the lateral and the vertical extent of contamination exceeding DTSC guidelines. This work would be done via a Supplemental Site Investigation in accordance with guidelines.

Naturally-occurring asbestos is also present across the Site and dust mitigation during earth-disturbing activities is recommended as well as capping of exposed soils to reduce the potential for future exposure to asbestos fibers. The project has been performing perimeter monitoring (upwind and downwind) during mass grading, foundation excavation, and other earth-disturbing activities. Capping of any exposed soils will be completed after building construction and a long-term Operations and Maintenance Agreement and an Operations and Maintenance Plan negotiated with the DTSC.

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1.0 INTRODUCTION

On behalf of the Mountain View–Los Altos Union High School District (MVLAUHSD), McCloskey Consultants, Inc. (MCI) has prepared this Preliminary Environmental Assessment (PEA) Report for the proposed renovation/redevelopment in the northeastern portion of the existing Los Altos High School (LAHS) located at 201 Almond Avenue, in Los Altos, Santa Clara County, California (the "Site") (Figure 1). Los Altos is in the northern portion of Santa Clara County, southwest of the southern San Francisco Bay. Under Senate Bill 475 (1989), the preparation of a PEA is a formal step in the site evaluation process of the School Site Mitigation Unit

A Scoping Meeting was performed on February 6, 2020. Participants included José Salcedo (Department of Toxic Substances Control [DTSC], Schools Program Unit Chief), Letitia Shen (DTSC, Schools Program Project Manager), Vivek Mathrani (DTSC Toxicologist), Mike Mathiesen (Associate Superintendent, Business Services), Omid Azizi (RGM Kramer), Patrick Maravelias (RGM Kramer), Tom McCloskey (McCloskey Consultants) and Chris Vertin (McCloskey Consultants).

The Site conditions and history were reviewed based on a previous Phase I Environmental Site Assessment (McCloskey, 2018a). The *"Preliminary Assessment Workplan, Los Altos High School Expansion"* (Workplan), dated May 15, 2020, and then prepared for DTSC review and comment. The Workplan was reviewed and approved by the DTSC on May 26, 2020 prior to implementation of the sampling program, and the approval letter is included in Appendix A.

1.1 Project Description

MCI understands that current redevelopment plans include: (1) demolition of one permanent classroom building (600 Block), four portable structures, an existing small gym and associated exterior area; and (2) construction of a new classroom building and auxiliary gym in place of the existing buildings. The expansion will include the addition of 15 classrooms, with an expected increase in student population of up to approximately 410 students.

1.2 Purpose

Under Senate Bill 475 (1989), the preparation of a PEA is a formal step in the review process of the DTSC Schools Unit. This report is to be reviewed by the DTSC to determine the need for further action at the Site.

The purpose of sampling during a PEA investigation is to identify if chemicals or naturally-occurring compounds are present at the Site that could represent health or hazard risks for the planned future school use. The data obtained are used to evaluate the degree of risk presented

by the compounds identified, and ultimately to evaluate appropriate response actions at the Site to render it suitable for school uses. PEA sampling is a one-time event. However, in the event contamination exceeding screening levels is identified, a Supplemental Site Investigation (SSI) may be required to fully characterize the Site and design final mitigation actions.

Specific objectives of this PEA include:

- Determining if hazardous substances (including naturally-occurring substances) are present at the Site;
- Estimating the potential threat to human health and/or the environment posed by the Site conditions;
- Determining if an expedited response action is needed to reduce existing threats to human health or the environment;
- Completing preliminary project scoping activities to determine data gaps and identify possible remedial actions strategies; and,
- Assessing and providing for the informational needs of the community.

This PEA was prepared in general accordance with the following documents:

- *Preliminary Endangerment Assessment Guidance Manual,* latest revision October 2015;
- *Interim Guidance, Evaluation of School Sites with Potential Soil Contamination as a Results of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers,* latest update September 12, 2006;
- *Interim Guidance for Sampling Agricultural Properties (Third Revision),* latest update August 7, 2008;
- *Interim Guidance Naturally-Occurring Asbestos (NOA) at School Sites,* latest revision September 24, 2004; and,
- *Arsenic Strategies, Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals* (January 16, 2009).

1.3 Organization of Report

This PEA report is organized, as follows:

- **Section 2.0** - Presents a Site description and identifies the physical setting of the Site vicinity, the current Site and vicinity land use, and the contact information for the Site;
- **Section 3.0** - Summarizes the Site operational history, hazardous waste management information, background research performed to evaluate Site conditions, previous Phase II sampling and previous remediation activities;

- **Section 4.0** - Discusses the potential chemicals of environmental concern (COCs) identified in the PEA Workplan;
- **Section 5.0** - Discusses the environmental setting, including physical aspects of the Site and vicinity affecting chemical transport pathways in soil, water, and air;
- **Sections 6.0 and 7.0** - Present the PEA sampling results and laboratory Quality Assurance/Quality Control (QA/QC) methods employed in this evaluation, respectively; and,
- **Sections 8.0 and 9.0** - Presents human health and ecological screening evaluations, respectively, based on the results of the sampling;
- **Section 10.0** - Discusses activities performed for public awareness;
- **Section 11.0** - Presents conclusions and recommendations of the investigation; and,
- **Sections 12.0 and 13.0** - Present report limitations and references utilized in preparation of this report.

2.0 SITE DESCRIPTION

The Site information provided herein is based on the results of the Phase I Environmental Site Assessment (ESA) (McCloskey, 2018a) and Phase II ESA (McCloskey, 2018b) conducted by MCI in 2018, and a Site visit conducted as part of the PEA Workplan preparation.

2.1 Site Identification and Vicinity

The Site is an irregularly-shaped area within the larger Los Altos High School (LAHS) parcel designated by the San Clara County Assessor's Office (SCCAO) as assessor's parcel number (APN) 170-60-001 (Figure 2). The Site is approximately 1¼-acre (54,450-square-feet) area along the eastern perimeter of LAHS. The school is located in a residential area of Los Altos. The Site has an EPA ID number and DTSC EnviroStor database identification number of 60002914, and the DTSC database Site Code 204320.

The Site is bordered to the north by soccer and softball fields, to the west by a dance room, wrestling room, large gym, boys and girls locker rooms, to the south by the 400 Block of classrooms and a school driveway followed by single-family homes to the east. The entire school, including the Site, is bordered by Jardin Drive and single-family homes to the north and Almond Avenue and single-family homes to the south. The Site is bordered by single-family homes to the east and west.

The Site boundary shown on Figure 2, and the area includes:

- One permanent classroom building (600 Block) (constructed by 1956) - Demolished;
- A small gym (constructed by 1961) - Demolished;

- Portable classrooms (installed before 1982 and 1998) – Removed or demolished;
- One custodial storage building (constructed by 1974);
- Unpaved landscaped areas with exposed soil near baseball field and between 600 Block and 500 Block permanent classroom buildings - Removed;
- Northern trench (in playfields and asphalt)- Fire line installed;
- East Trench (below paved concrete driveway) – Electrical trench installed;
- Asphalt- and concrete-paved play areas - Removed; and,
- Parking areas and a driveway.

2.2 Current Site Use

The Site has been used as a high school since construction of the school in 1951.

2.3 Current Vicinity Land Use

The Site is in a residential area of Los Altos. The school is bordered in all directions by single-family residential neighborhoods. Jardin Drive borders the LAHS to the north and Almond Avenue borders to the south.

2.4 Site Contact

The contact information for the Site representative is:

Mr. Mike Mathiesen
Associate Superintendent of Business Services
1299 Bryant Avenue
Mountain View, California 94040
(650) 940-4666 (office)
(650) 940-4650 (main office)
Email: mike.mathiesen@mvla.net

3.0 SITE BACKGROUND

3.1 Operational History and Status

3.1.1 Historical and Current Site Land Use

The Site was cultivated with orchards from at least the late-1930s through the early-1950s. The permanent classroom building (600 Block) had been constructed by 1956 and the gym by 1961. The custodial storage building appears to have been constructed by 1974. Portable structures

were installed on the Site between the early-1980s and late 1990s. The remainder of the Site appeared paved with asphalt, with the area adjoining the auto shop classroom/permanent classroom block utilized for storage/parking of vehicles and other items.

3.1.2 Property Ownership

Original ownership of the property (including the Site) was provided in the Phase I ESA (McCloskey, 2018a). Previous property owners included Newhall and Wise (1894), Perry and Georgia Krisher (1929) and J. Rollin and Marion S. Slonaker (unknown – 1951). The Site use by prior owners was unknown. The school property (including the Site) has been continuously owned by the Mountain View-Los Altos Union High School District since construction of the school in 1951.

3.1.3 Prior Surrounding Land Use

Based on historical aerial photographs and topographic maps, the surrounding land use historically was mostly orchards until the early 1950s. Residential development in the surrounding area increased as well as the construction of the high school by 1956. By 1968 the entire surrounding area was built out with residential structures.

3.1.4 Zoning

According to the City of Los Altos zoning map, the Site is zoned as a public and community facility (PCF) and the Site vicinity is zoned residential.

3.1.5 Water Supply and Use

Municipal potable water for LAHS is provided by California Water Service Company.

3.2 Hazardous Substance/Waste Management Information

3.2.1 Site Activities

A reconnaissance of the Site was conducted by Ms. Belinda Blackie of MCI on July 11, 2018 during the Phase I ESA. Ms. Blackie was accompanied at the time of her reconnaissance by LAHS representative Mr. Mike Woodworth. No significant Site access limitations were encountered. At the time of the reconnaissance, the Site was developed with the school's existing small gym, four portable structures, the custodial building and one bank of permanent classrooms, as well as associated exterior areas.

The small gym was located on the northwestern corner of the expansion area and housed a wood-floored basketball court. According to Mr. Woodworth, a natural gas heating unit for the gym was located on the building roof. Interior finishes included painted gypsum board walls and a spray-on acoustic ceiling finish.

To the east and southeast of the gym were four portable buildings housing seven classrooms, of which several were accessed. Classroom interiors included student and teacher desks, storage cabinets, white boards, and other typical classroom furnishings. Interior finishes included vinyl floor tile, painted gypsum board walls and acoustic ceiling tile.

The 600 Block of permanent classrooms was located south of the portables, on the southern portion of the expansion area. Four classrooms were present in the block, including a cooking lab, computer lab, robotics room and auto shop.

The cooking lab (Room 604) included a commercial kitchen with commercial grade BBQs, refrigerator/freezers and sinks. Two propane cylinders for the BBQs were stored on the floor. Several 1-quart to 1-gallon containers of assorted janitorial cleaners were stored beneath a sink. Floor drains were observed in the cooking lab. Immediately outside the cooking lab, with two steel covers visible in the asphalt surface, was a grease trap.

The computer lab (Room 603) was set up as a general classroom, with similar furnishings to those in the portable classrooms.

The robotics lab (Room 602) included work spaces and several pieces of equipment related to robotics assembly. A laser printer and fume extraction unit, as well as other smaller pieces of equipment, were observed within the lab. A plastic storage bin housing assorted metal pieces was staged adjoining the exterior of the classroom.

The auto shop (Room 601) was occupied by an expansion of the robotics lab as well as the auto shop and had two roll-up doors along the northern wall. One above-grade vehicle hoist and three cars were present in the shop, as were several pieces of metal machining equipment and sinks. Two flammable materials storage cabinets within the shop housed two 5-gallon containers of oil and several 1-quart to 1-gallon containers of assorted oil and typical automotive repair-related materials, along with several cans of spray paint. No evidence of significant spills or releases from the stored hazardous materials was observed.

Adjoining the northeastern exterior corner of the auto shop was a concrete pad upon which was a wooden compressor shed and what appeared to be the previous location of a plastic waste oil storage shed. Oil staining of the slab was observed, as was some oil staining of the asphalt adjoining the concrete pad. The former waste oil storage shed was staged on the asphalt adjoining the pad. The shed had integral secondary containment; the secondary containment area had an accumulation of what appeared to be oil.

Interior finishes within the permanent classroom building were similar to those in the portable classrooms, with the exception of sheet vinyl flooring within the cooking lab and a sealed concrete floor within the auto shop.

The primary custodial building (Building 7) was located to the west of the 500 Block of permanent classrooms. Shelving units and cabinets housing numerous 1-gallon bottles of assorted janitorial supplies and cans of paint were located within the building.

Exterior portions of the expansion area included asphalt- and concrete-paved areas, including a basketball court, as well as landscaping and multiple small wooden storage structures utilized by local sports teams and scout packs. The sheds were locked and inaccessible. One propane forklift was parked by the permanent classroom building. Several propane cylinders were stored in the same area.

During the Phase I ESA, a questionnaire was completed by Mr. Mike Mathiesen of the Mountain View-Los Altos Union High School District. Mr. Mathiesen was not aware of any indications of contamination on the Site, and reported no knowledge of environmental cleanup liens, activity and land use limitations, or pending, threatened or past litigation or administrative proceedings related to hazardous substances or petroleum products at the Site. He also reported no receipt of notices from governmental entities regarding possible violation of environmental laws or liability related to the same.

Based on the dates of construction for many of the structures (construction dates pre-dating 1978 for lead based paint (LBP) and the late-1980s for asbestos-containing material (ACM), building materials and coatings may include ACM and LBP. AHERA asbestos surveys were completed at the Site in 2017 prior to the proposed redevelopment. ACM was not identified in the Site structures at the time of the 2017 AHERA asbestos survey.

3.2.2 Regulatory Database Research

During the Phase I ESA, an *Environmental Data Resources (EDR) Radius Map™ Report with GeoCheck®* (EDR Radius Report) was obtained and reviewed to help establish if hazardous materials incidents, radon gas, and/or oil and gas wells have been reported on the Site or in the immediate area of the Site. The following sections outline the results of the research.

3.2.2.1 Site Regulatory Status

The EDR Radius Report was reviewed to help establish if hazardous materials incidents, radon gas, or oil and gas wells have been reported on the Site or in the immediate Site vicinity. LAHS was included in the regulatory agency database report on the Resource Conservation and Recovery Act (RCRA) Small Quantity Generator (SQG), Facility Index System (FINDS), Enforcement and Compliance History Information (ECHO), Certified Unified Program Agency (CUPA) Listings, California Environmental Reporting System (CERS), CERS HAZ WASTE, and HAZNET databases. The SQG listing was from 1986; the type of waste generated was not included in the listing. No RCRA generator violations were documented.

The CUPA listing documented LAHS as a facility with a hazardous materials business plan (HMBP) with 7 to 9 chemicals and as a generator of 100 kg to less than 5 tons of hazardous waste per year.

The CERS listings similarly documented LAHS as a chemical storage facility. A 2016 violation and return to compliance was noted for a drum possibly containing oil stored along a fence behind the auto shop. Additional violations/return to compliance were documented for insufficient hazardous waste storage inspections, failing to prevent oil accumulation in containment under drums, failure to properly handle/manage/label/recycle used oil and fuel filters, and various recordkeeping violations. Other reported violations did not relate to the Site portion of LAHS.

The HAZNET listings were for disposal of wastes including empty containers (1996), organic solids (2001), laboratory waste chemicals, photochemicals/photoprocessing waste, organic liquid mixtures, asbestos-containing waste, and waste/aged inorganics, among others (1994 to 2016).

No significant information was included in the ECHO or FINDS database listings.

Many of the LAHS database listings were associated with the auto shop portion of the Site. None of the listings indicate a significant environmental concern.

On July 7, 2018, MCI received hazardous materials files available from the Santa Clara County Environmental Health Department (SCCEHD) via email. Copies of available documents from the SCCEHD are included in Appendix D of the Phase I ESA.

Documents included 1987 and 1993 hazardous materials and waste inventories, 2010 HMBP and a 2017 California Environmental Reporting System (CERS) submittal indicating LAHS was a hazardous materials user/hazardous waste generator but had no USTs. The 1987 inventory documented storage of a 55-gallon drum of waste oil outside the auto shop without secondary containment, along with interior storage of one 55-gallon drum oil, 5 gallons ethanol and small containers in a flammable storage cabinet. The 1993 inventory documented generation of 50 gallons waste oil; additional wastes documented appeared related to off-Site potions of LAHS. Hazardous materials documented in the auto shop in the 2010 HMBP included 20 cubic feet acetylene, 45 cubic feet oxygen, 5 gallons cleaning solvent, and 55 gallons each of waste oil, waste antifreeze and used oil filters. Materials reportedly were stored within the building. The 2017 document indicated storage of 55 gallons coolant, 63 gallons liquefied petroleum gas, 281 cubic feet oxygen and 55 gallons used oil. Hazardous materials were not reported as being stored in the other on-Site facilities.

A hazardous materials permit obtained from the SCCEHD for LAHS was dated 2006 and a hazardous waste generator permit (for generation of less than 5 tons/year) was dated 1993.

Inspections were reported in 1987, 1993, 2000, 2009, 2013, and 2016. The 2016 inspection noted one 15-gallon drum labeled as oil but possibly containing other waste located along the fence adjoining the bike storage area behind the auto shop classroom. Oil accumulation in containment under the drums also was documented, with no specifics on the location provided. The 2013 inspection noted the presence of used oil and coolant and oxygen and acetylene gas, likely present within the auto shop. Minor violations in the other inspections included deficiencies in labeling, record keeping and training, lack of regular inspections, pooling of oil on top of waste coolant drum, disposal of oil-containing waste in trash dumpster, and open containers.

The SCCEHD also provided documentation related to closure of a 5,000-gallon heating oil Underground Storage Tank (UST) from an unspecified location on the LAHS campus in 1996. The single-walled tank reportedly was empty at the time of removal. Indications of impacted soil were not reported at the time of the removal, however one verification soil sample collected from the bottom of the tank pit demonstrated unspecified fuel oil contamination. Impacted soil was reported to have been removed from the "hot spot" to a depth of approximately 13 feet and another verification sample collected; no analytical data from the sample was available. No further information regarding UST closure activities was available in the SCCEHD file. The specific location of the UST was unable to be documented, but a map associated with the removal was located in some historical documentation and indicated that the tank was previously located on the southwestern portion of the school near the football field and not within the Site boundaries as shown on Figures 2 and 4.

Santa Clara County Fire Department (SCCFD) files were reviewed at the SCCFD office on July 13, 2018. Information included inspection reports dated 2015 and 2016. Minor violations noted were related to the auto shop only and included needing hazardous materials placarding on the shop door and minor hazardous materials storage violations.

In addition to requesting files available at the local regulatory agencies, the on-line State Water Quality Control Board (SWQCB) Geotracker database and the California Department of Toxic Substances Control (DTSC) Envirostor database were reviewed on July 2, 2018. The Site was not included on either database for either agency.

3.2.2.2 Vicinity Land Use and Hazardous Materials

Listings for off-Site facilities in the EDR report, including those identified as "orphan" facilities unable to be plotted due to incorrect or insufficient address information, were reviewed for their potential to impact the Site. Two of the listed off-Site "orphan" facilities were located approximately 2/5 mile southwest and hydraulically cross-gradient from the Site.

The Hillview-Eleanor Area Plume and Los Altos Well Field listings appear likely associated with the same concern, located in the vicinity of Hillview Avenue, Eleanor Avenue, and San Antonio Road. The listings were included in the EDR report on the SEMS-Archive database. Although significant information on the listings was not included in the database report, the Hillview-Eleanor Area Plume was included on the DTSC EnviroStor website, as discussed below. Based on the available information, the listings are unlikely to be of significant concern.

The Hillview-Eleanor Area Plume currently is in the DTSC's site cleanup program, listed as having backlog status as of October 2005 when the Envirostor database was accessed on July 2, 2018 and having a No Further Action as of 11/6/1992 status when accessed on October 14, 2018. The "plume" reportedly consisted of two public domestic water supply wells which were determined to have been impacted by carbon tetrachloride at concentrations exceeding the State drinking water standard (MCL), at levels between 4 and 17 parts per billion (ppb). Investigations conducted included a soil gas survey and search for the contaminant source, which was unable to be identified. The site was referred to the U.S. Environmental Protection Agency (EPA) by the California Department of Health Services (DHS) in 1985, but the plume was rejected as a National Priority List (NPL) candidate. Discontinuation of pumping water from the impacted wells reportedly stabilized the situation in 1990, by preventing the volatilization of carbon tetrachloride to ambient atmosphere. The DTSC issued a Report of Completion of Removal Action following closure of the two wells in 1992. No further actions were documented through the Envirostor website.

Based on the cross-gradient location of the plume and the regulatory status, it appears unlikely to be of significant concern to the Site.

3.2.3 Federal and State Radon Screening

Federal and State radon screening test data for the Site zip code of 94022 are included in the EDR radius map report included in Appendix C of the Phase I ESA. Based on information provided in the regulatory agency database report, two Federal and 49 State radon screening tests have been performed in the Site zip code. Three of the State results (6%) indicated radon concentrations exceeding the EPA action level of 4 pCi/L. Radon concentrations reported in the Federal tests averaged 0.200 pCi/L in the first floor living area, with 100 percent of results less than 4pCi/L; radon testing of the second floor living areas and basements was not reported. The Site is within Federal EPA Radon Zone 2 for Santa Clara County, indicating indoor average radon concentrations between 2 and 4 pCi/L.

Based on the radon test data, radon accumulation does not appear to be a significant concern for the Site.

3.3 Phase II Environmental Site Assessment

The Phase I ESA (McCloskey, 2018a) identified a few Recognized Environmental Concerns (RECs) that resulted in soil sampling to evaluate to evaluate the Site for man-made and naturally-occurring hazardous compounds. A Phase II ESA (McCloskey, 2018b) was performed and the following describes the sampling and the results of that sampling. Both the Phase I and Phase II ESAs were performed prior to an environmental oversight agreement (October 10, 2019) with the DTSC. The Phase I and Phase II ESAs were conducted using ASTM and DTSC School Program guidelines.

3.3.1 Building Perimeter - Sample Collection, Analyses and Analytical Results

The permanent classroom building (600 Block) had been constructed by 1956 and the small gym by 1961. Both may have been treated with termiticides and/or insecticides around the building perimeters, and OCPs and arsenic were therefore identified as potential environmental concerns. Lead-based paint may also have been used and flaking of paint to soil around these two buildings was a potential environmental concern. Exposed soil was only present around the small gym.

To evaluate these potential concerns, four soil samples were collected from exposed soil next to the outside walls of the small gym from a depth of 0- ½ feet, and at a frequency of one sample along each wall of the buildings (SS-1 to SS-4). Three soil samples (SS-9 to SS-11) were also collected next to the outside walls of the building 600 Block from a depth of ½ - 1 foot. These samples were collected beneath the existing asphalt and baserock material. Attempts were made to core the concrete along the southern and western sides of the 600-wing classroom building. The concrete was reinforced with rebar and the sampling locations along the southern and western sides of the building were not able to be cored and sampled. The sampling results are included in Table 1. The sampling locations are shown on Figure 3.

These seven samples were analyzed for OCPs (EPA Test Method 8081), lead and arsenic (EPA Test Method 6010B). The OCP results indicated that mostly low concentrations of pesticides were present around the building perimeter at the gym and the 600-wing classroom building. The pesticides concentrations were compared to the DTSC modified Screening Levels (DTSC-SLs) presented in DTSC Office of Human and Ecological Risk (HERO) guidance document Human Health Risk Assessment (HHRA) Note 3 dated April 2019, (HERO, 2019). If a DTSC-SL has not been established, the soil results were compared to Regional Screening Levels (RSLs) established by the United States Environmental Protection Agency (USEPA) Region 9 (USEPA, May 2020). The detected compounds included chlordane, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, gamma-BHC and heptachlor in at least one of the samples collected. Only the concentrations of dieldrin detected at two of the sampling locations around the gym exceeded the regulatory threshold for school uses. No other OCP compounds were detected exceeding their respective laboratory reporting limits.

Arsenic was detected in all of the soil samples analyzed and the concentrations were evaluated using standard statistical methods, as discussed in Section 6.1.2, and the maximum concentration detected (11.5 mg/Kg) is determined to be within naturally-occurring concentrations.

Lead concentrations were detected in all of the soil samples analyzed. Concentrations were compared to the DTSC modified Screening Levels (DTSC-SLs) of 80 milligrams per kilogram (mg/Kg) presented in HERO guidance document Human Health Risk Assessment (HHRA) Note 3 dated April 2019, (HERO, 2019). One sample collected from around the small gym had a lead concentration of 602 mg/Kg and the remaining concentrations were less than the DTSC-SL.

Copies of the analytical results and the chain of custody documentation are included in Appendix D.

3.3.2 Former Agricultural Use - Sample Collection, Analyses and Analytical Results

The Site was cultivated with orchards from at least the late-1930s through the mid-1950s. Pesticides and herbicides were commonly applied to orchards and the presence of residual concentrations of OCPs and arsenic were therefore potential environmental concerns. To address this concern, shallow soil samples were collected at four locations (SS-5 to SS-8) across the expansion area as shown on Figure 3, and analyzed for OCPs (EPA Test Method 8081) and arsenic (EPA Test Method 6010B). The sampling results are included in Table 1.

The OCP results show that two of the four samples had detectible concentrations of 4,4' DDD, 4,4'-DDE, 4,4'-DDT and/or dieldrin. None of the concentrations detected exceed their respective single compound USEPA RSL for school uses. No other compounds were detected exceeding their respective laboratory reporting limits.

Arsenic was detected in all of the soil samples analyzed. None of the concentrations detected in the soil samples exceeded naturally-occurring background concentrations.

Copies of the analytical results and the chain of custody documentation are included in Appendix D.

3.3.3 Naturally-Occurring Asbestos - Sample Collection, Analyses and Analytical Results

Geologic deposits that could contain naturally-occurring asbestos (NOA) are less than 10 miles from the Site and the DTSC Schools Unit guidelines recommend soils be tested for the presence of asbestos fibers (DTSC, 2004). To evaluate the potential presence of NOA in Site soils, three soil samples were initially collected from depths between approximately 6 inches and 2.0 feet below ground surface (bgs) followed by an additional six samples in the Phase II investigation (McCloskey, 2018b). Of the 9 samples analyzed, eight exceeded the DTSC School Unit screening criteria of 0.01%. Because of this, dust control measures and perimeter monitoring for NOA fibers will be needed during construction activities as well as capping and long-term measures to

control the long-term release of asbestos fibers. The sampling results are included in Table 2. The approximate sampling locations are shown on Figure 4.

All samples were analyzed by Asbestos TEM Laboratories, Inc. of Berkeley, California. Because of the fine-grained nature of some of the Site soils, analyses by Transmission Electron Microcopy (TEM) Quantitative EPA Method (TEM NOA EPA/CARB Quantitative) was requested to resolve the presence of small asbestos fibers.

Copies of the analytical results and the chain of custody documentation are included in Appendix B.

3.4 Previous Remediation Activities

Because concentrations of pesticides (dieldrin) and lead from flaking lead-based paint were identified in soils around the small gym building, soil with concentrations exceeding the DTSC-SLs or RSLs were excavated in 2019. This work was done before DTSC involvement with the Site. The excavation areas are shown on Figure 5. Photographs of Site activities were taken periodically by MCI to further document the removal action implementation and are included in Appendix F. Approximately 60 cubic yards of in-situ soil was excavated and placed in 10 cubic yard bins. The bins were off-hauled and disposed at an appropriately licensed US Ecology landfill in Beatty, Nevada as a non-hazardous waste prior to Site development. Copies of the waste manifests are included in Appendix C.

Soils were initially excavated to a depth of 1 foot and approximately 6 feet wide on the northern side of the gym, and to a depth of 1½ feet and approximately 3 feet wide on the southern side of the gym. To document that elevated pesticides and metals were removed, verification soil samples were collected from the base and the sidewalls of the excavations. The approximate verification sampling locations are shown on Figure 5. A total of nine samples were initially collected from the base (3 samples) and sidewalls (5 samples and one duplicate) from the excavation on the northern side of the gym. A total of seven samples were initially collected from the base (2 samples and one duplicate) and sidewalls (4 samples) from the excavation on the southern side of the gym.

When OCPs concentrations were detected in the verification samples exceeding the DTSC-SLs, USEPA RSLs, or lead exceeding 80 mg/Kg, additional excavation was performed. Elevated concentrations were detected at three locations (one bottom and two sidewalls) in the northern excavation, and in one sidewall sample from the southern excavation. When elevated concentrations were detected in the sidewall samples, the excavation was extended laterally an additional 3 feet. Bottom sample exceedances resulted in excavation an additional foot deeper. This process was repeated as necessary until verification samples showed that the sampling results were less than the regulatory thresholds. The analytical results for all the verification

samples are summarized in Table 3. Copies of the analytical results and the chain of custody documentation for the verification samples are also included in Appendix D.

3.5 Demolition Activities

Demolition of the buildings in the expansion area was completed by October 25, 2019. The removed buildings included the 600-Block classroom building, the small gym, the portable classrooms P-11-P-12 and the portable classrooms P-13-P-16. The demolition included removal of all the concrete and asphalt in the expansion area and the oil stained concrete and asphalt in the hazardous waste storage area on the northern side of the 600-Block classroom building. The area of the hazardous waste storage was located within the footprint of the one of the new classroom buildings. Due to construction during the winter months, the new classroom building foundation in the area of the former hazardous waste storage was sub-excavated to a depth of 5- feet below existing grade, and the wet soil was lime -treated during the backfilling process. Although no soil was imported to the Site, construction materials including approximately 1,000 cubic yards of virgin quarry fines were imported as stable backfill for one of the building pads.

4.0 POTENTIAL COMPOUNDS OF ENVIRONMENTAL CONCERN

Based on results of the review of historical documents, potential historical practices, interviews conducted during the previous Phase I ESA, and the Site visit conducted by the DTSC,

potential environmental concerns for the Site were established in the Workplan, as described below.

4.1 Existing and Former Building Perimeters

4.1.1 Lead-Based Paint

One former permanent classroom structure (Block 600) and the small gym date back to mid-1950 and the existing custodial storage building date back to late-1960s/early-1970s. Based on historical practices, lead-based paint may have been used on the structures. Aerial photographs suggest that the areas around the existing and former building perimeters were mostly paved and the portable classrooms were placed on existing asphalt. DTSC was also concerned about residues that may have migrated in runoff water. Previous Phase II sampling (McCloskey, 2018b) at the Site (Section 3.3) performed in the areas of exposed surface soil around the small gym identified residual OCPs and lead-based paint which was mitigated prior to demolition of the building, as described in Section 3.4).

Based on these concerns and the Scoping Meeting with the DTSC held on February 7, 2020, existing building perimeters (custodial storage building), the northern side of the existing

permanent classroom (500 Block), possible runoff areas north and east of the former portables (near baseball field and the landscape strip near the fence), and south of the former permanent classroom (600 Block) are considered potential areas of concern for lead-based paint.

4.1.2 Polychlorinated Biphenyls (PCBs)

Window caulking and glazing have been known to contain PCBs for buildings constructed or renovated between 1950 and 1979. Construction of the one existing permanent classroom structure (600 Block) and the small gym were in the mid-1950s and the custodial building was constructed in the late-1960/early 1970s and window caulking/glazing with PCBs may have been utilized. The portable buildings were installed in the early 1980s and late-1990s and window caulking/glazing with PCBs was not likely utilized.

Based on this evaluation, the area south of the existing custodial storage building and the area south of the former permanent classroom (600 Block) are considered potential areas of concern for deposition of PCBs to surface soils. The previous Phase II sampling did not include testing for PCBs, but the exposed soils around the small gym have been removed from the Site.

4.1.3 Organochlorine Pesticides (OCPs) and Arsenic

Based on historical practices prior to 1989 and possible unpaved condition of the Site prior to 1963, the soil around the existing custodial building 7 perimeter and former permanent classroom building (600 Block)may have been treated with OCPs and/or herbicides possibly containing arsenic likely through direct-surface application.

Based on this evaluation, the perimeter of the existing custodial building perimeter and former permanent classroom building (600 Block) (paved and unpaved), were considered potential areas of concern for OCPs and arsenic.

The areas on the north and west sides of the custodial storage building appeared to be covered pool deck.

4.2 Former Agricultural Use

4.2.1 OCPs, Lead and Arsenic

The Site was cultivated with orchards from at least the late-1930s through the mid-1950s. Pesticides were commonly applied to row crops and orchards and the presence of residual concentrations of OCPs, lead and arsenic were therefore identified by the DTSC as potential environmental concerns. Organochlorine pesticides were not widely used until the 1950's, and prior to this lead-arsenate pesticide were used by some farmers. Application of pesticides would likely have been done in a uniform manner to treat the entire crop area. Previous Phase II

sampling evaluated most of the Site for residual agricultural chemicals, but the northern and eastern trench areas were not tested.

The CSM for the Site therefore led to the collection of shallow soil samples from along the northern trench for the presence of residual concentrations of OCPs, lead and arsenic. We understand that the eastern underground utility installation trench was already completed along the paved roadway and by directional drilling and not open trenching. Although the utility installation is complete, potential future repairs to the utilities are a concern. Therefore, shallow soil samples were collected from native soil beneath the asphalt for the presence of residual concentrations of OCPs, lead and arsenic.

4.3 Site Soils – Naturally-Occurring Asbestos

Naturally-occurring asbestos is often present in ultramafic rocks and can be eroded and transported in sediment long distances. The nearest outcrop of ultramafic rock that could contain NOA is approximately 9 miles west of the Site. To evaluate the potential presence of NOA in Site soils, three soil samples were collected from depths between approximately 6 inches and 2.0 feet bgs during the Phase II investigation, and an additional six after the Phase II investigation. Of the 9 samples analyzed, eight exceeded the DTSC School Unit screening criteria of 0.01%.

Based on this evaluation, Site soils are considered an area of concern for NOA.

5.0 ENVIRONMENTAL SETTINGS

This section describes Site environmental conditions that could potentially influence the transport of contaminants from the source through identified potential exposure pathways to an exposed individual or environmental receptor.

5.1 Factors Related to Soil Pathways

5.1.1 Site and Surrounding Area Topography

The Site topography is generally level, with a Site elevation of approximately 133 feet above mean sea level. The vicinity topography slopes very gently towards the northeast. The Site boundaries generally are undelimited in the field but were documented on the provided Site plan overlay).

5.1.2 Evidence of Environmental Impacts

A Phase II ESA was previously performed (McCloskey, 2018b) to evaluate if contamination was present on the Site and is summarized in Section 3.3. Lead and OCP impacted soil were identified

around one of the former structures (small gym). Prior to redevelopment of the Site, the impacted soils that exceeded the regulatory thresholds were removed from the Site and disposed at an appropriately licensed landfill. Confirmation sampling was performed on the excavations to verify all the impact soil was removed prior to mass grading activities. The remediation activities are summarized in Section 3.4.

5.1.3 Site Geologic Setting and Soil Types

The town of Los Altos is located in the northern portion of Santa Clara County, southwest of the San Francisco Bay. Santa Clara County is in the Coast Ranges geomorphic province, which is characterized by northwest-trending mountain ranges and valleys subparallel to the San Andreas Fault.

Based on information contained in the Environmental Data Resources Radius Map™ Report with Geocheck® (EDR Radius Report) prepared for the Phase I ESA (McCloskey, 2018a), soils in the vicinity of the Site are categorized by the USDA Soil Conservation Service as Botella clay loam. The EDR Radius Report is provided in the appendices of the Phase I ESA.

The Botella series is moderately- to well-drained with a moderately coarse texture (EDR, 2018).

The Site is located within the Santa Clara Valley Groundwater Basin, Santa Clara Subbasin. The aquifer system in the subbasin consists primarily of Pleistocene-Holocene age Alluvium. The Pleistocene-Holocene Alluvium is the most significant water-bearing formation in the Subbasin.

Based on vicinity hydrogeological information obtained from the State Water Resources Control Board (SWRCB) Geotracker database, first groundwater in the Site area is expected at depths of approximately 25 to 35 feet beneath ground surface. The groundwater flow direction is documented towards the north-northwest.

5.1.4 Site Accessibility

The Site can be accessed from the northeastern portion of the school property on Jardin Drive or the southeastern portion of the school property on Almond Avenue.

5.1.5 Preventive Measures

Most of the Site was paved or covered with structures prior to the demolition in October 2019. The redevelopment is expected to take approximately two years to complete. The redevelopment will be during the academic school year when students and school personnel could be present if allowed during the Covid-19 pandemic and also the summer months at a time when the number of students and personnel will be at a minimum Preventative measures such

as engineering controls were implemented to mitigate exposure to NOA during the redevelopment activities. Perimeter dust monitoring for asbestos fibers was also conducted. .

5.1.6 Nearest Potentially Affected Areas

The planned redevelopment of the Site includes upgrading several portions of the existing school grounds. Multiple single-family residential buildings are located within 1 mile of the Site, and single-family residential structures are present on all sides of the school parcel. The closest sensitive receptors are the single-family residential structures on the east side of the Site.

The following schools were identified within one mile of the Site: Almond Elementary, Santa Rita Elementary School, Covington Elementary School, Egan Junior High School, Bullis Charter School and Los Altos Tiny Tots preschool.

5.2 Factors Related to Water Pathways

5.2.1 Potential Migration Pathways to Groundwater

The primary migration pathway of potentially hazardous substances on the Site is via transport of dissolved chemicals through the unsaturated zone to groundwater. As stated previously, GeoTracker information first groundwater is expected at depths of approximately 25 to 35 feet beneath ground surface and generally flows to the north-northwest. The COCs at the Site include lead-based paint flakes, OCPs/arsenic, PCBs, and NOA, all of which have relatively low solubility and mobilities in soil and are not expected to be capable of significant downward migration into the soil column. Therefore, the likelihood of transport of potentially hazardous substances at the Site to groundwater is very low.

5.2.2 Potential Migration Pathways to Surface Water Bodies

The most likely migration pathway of potentially hazardous substances to surface water bodies is through stormwater runoff, and subsequent discharge to nearby surface water bodies. No creeks or streams were identified in the immediate vicinity of the Site. The nearest large surface water body is San Francisco Bay, located approximately 4½ miles northeast of the Site. Therefore, the likelihood of transport of potentially hazardous substances to surface water bodies is low.

5.2.3 Preventive Measures

As stated, most of the Site and surrounding areas are currently paved or covered with structures. The planned redevelopment is expected to take up to two years for completion and rainfall is expected during the winter months, therefore, transport via surface runoff to storm drains is a potential concern. During grading and construction, a variety of best management practices will

be employed to comply with existing State stormwater regulations to control potential runoff and reduce erosion and sediment transport via the stormwater system from the Site.

5.3 Factors Related to Air Pathways

5.3.1 Potential Release Mechanisms

During mass grading and construction, soils will be exposed until construction is finished. Wind transport of affected soils and NOA are anticipated potential pathway for a release of impacted soil to air.

5.3.2 Prevailing Wind Direction and Velocity

The daily prevailing wind direction in the Site vicinity reportedly varies throughout the year. According to Weatherspark.com, the wind in Los Altos most often is from the west between mid-February and early-November, and from the north between early November and mid-February. Wind speeds are variable, but average between approximately 6.8 and 9.3 miles per hour. The windier parts of the year are from mid-February to mid-July.

5.3.3 Local Climate Information

According to Weatherspark.com, the average monthly precipitation in the Los Altos area ranges from a low of 0 inches in late-July, to a high of 3.7 inches in mid-February. The rainy season in the area generally is from October to May. The temperature at the Site throughout the year generally ranges from 44 to 76 degrees Fahrenheit.

5.3.4 Timing of Release Mechanisms

During redevelopment soil will be exposed, and the exposure potential varies upon the activity and could result in a potential release of impacted soil particles into the air.

5.3.5 Potentially Affected Areas

If not controlled the immediate Site vicinity could be affected by the release of impacted soils dispersed by wind.

5.3.6 Preventive Measure

During construction, engineering controls (e.g., dust abatement, plastic sheeting, etc.) have been put into place to control airborne particles. Perimeter NOA monitoring has also been performed during earth disturbing activities to evaluate the effectiveness of the dust control measures.

6.0 PEA SAMPLING AND ANALYSIS

As stated previously, the primary objective of sampling during a PEA investigation is to identify if chemicals or naturally-occurring substances are present at the Site that could represent health or hazard risks for the planned future school use. The scope of work described below was designed to target suspected areas of environmental concern and to analyze soil for the appropriate COCs discussed previously in Section 4.0, and was included in the PEA Workplan (McCloskey, 2020).

During the PEA sampling, a total of 19 soil samples were collected at depth intervals ranging from 0-½ feet bgs to 1½ to 2 feet bgs, depending on the sample location, the presence of asphalt, and the target analytes. Depth intervals are presented on each of the tables included herein. Near-surface soils were collected using hand augering equipment with a 3 inch-diameter stainless steel auger head. The soil from the upper 6 inches or first encountered soil beneath the concrete or asphalt was placed in new, laboratory-supplied 4-ounce. Soil samples collected from depths deeper than 1 foot were collected using a hand auger and slide hammer. A hand auger was used to advance the borings to a depth of approximately 1½ feet bgs. A slide hammer was used to advance a 2.5-inch diameter, 6-inch long core sampler with a stainless-steel liner. Once the sample was collected, the liner was capped with Teflon™ film, fitted with a tight-fitting cap, and labeled with a unique sample identifier. The stainless-steel liners were then placed in plastic bags for temporary storage in an insulated cooler. Non-dedicated sampling equipment (e.g., drill shoe and slide hammer) was decontaminated prior to and in between sample locations using the procedures described previously to mitigate the potential for cross-contamination between samples.

The samples were then placed in an insulated cooler chilled to 4 degrees +/- 2 degrees Celsius and hand delivered by MCI personnel under chain-of-custody to personnel of a California-certified analytical laboratory for shipping.

The samples were analyzed for select analytes at Pace Analytical National Laboratory in Mount Juliet, Tennessee. Laboratory analytical results are summarized in the following tables:

- Table 4 – Metals and OCPs; and
- Table 5 – PCBs.

Laboratory analytical reports and chain-of-custody forms are included in Appendix D. Detected concentrations were compared to the DTSC modified Screening Levels (DTSC-SLs) presented in DTSC Office of Human and Ecological Risk (HERO) guidance document Human Health Risk Assessment (HHRA) Note 3 dated April 2019, (HERO, 2019). If a DTSC-SL has not been established, the soil results were compared to USEPA Region 9 RSLs (USEPA, May, 2020). The

arsenic results were analyzed by statistical methods using the USEPA ProUCL software. The ProUCL results were evaluated to determine the approximate maximum naturally-occurring background concentrations. The analyses performed is described in Section 6.1.2 and the plots are included in Appendix E.

6.1 Existing and Former Building Perimeters

6.1.1 Soil Sampling and Analyses

To evaluate potential environmental concerns associated with flaking of lead-based paint and PCBs in window caulking/glaze, and the direct application of OCPs and arsenic, soil samples were collected north of former portables P-11/P-12 (near baseball field) (BP-1), east of former portables P-13-P-16 (landscape strip near the fence) (BP-2), south of the former permanent classroom (600 Block) (BP-3 and BP-4), the northern side of the existing permanent classroom (500 Block) (BP-5) and south of the existing custodial storage building (BP-6 through BP-10). The sampling location are shown on Figure 6.

All the near-surface soil samples (locations BP-1 to BP-6 and BP-10) and first encountered soil under the concrete (BP-7 to BP-9) were analyzed for lead (EPA Test Method 6010B). The samples collected south of the former 600 Block building (BP-3 and BP-4) and north of the 500 Block building (BP-5) were also analyzed for OCPs (EPA Test Method 8081), PCBs (EPA Test Method 8082), and arsenic (EPA Test Method 6010B). In the area around the custodial storage building 7 that require concrete or asphalt coring, the samples from the first encountered soil from locations BP-7 to BP-9 were also analyzed for OCPs and arsenic. The deeper samples from sampling locations BP-7 to BP-9 were also analyzed only for arsenic to assist with the evaluation of the naturally-occurring background concentration.

6.1.2 Analytical Results

The laboratory results of the pesticides, arsenic and lead analyses are summarized in Table 4. The laboratory results PCBs analyses are summarized in Table 5. The complete laboratory reports are included in Appendix D.

Concentrations of only 4,4'-DDE were detected in three of the six samples collected around the building perimetersexceeding the laboratory reporting limits. The three samples had detectible concentrations of 4,4'-DDE ranging from 0.00682 mg/Kg to 0.0136 mg/Kg. These concentrations are well below the single compound USEPA RSL concentration of 2.0 mg/Kg for school uses.

Arsenic was not detected in any of the initial three soil samples (BP-3, BP-4 or BP-5) analyzed exceeding the laboratory reporting limits. An additional six discrete soil samples from locations BP-7, BP-8 and BP-9 were then analyzed and concentrations ranged from 3.93 mg/Kg to 11.5

mg/Kg. The arsenic results from the previous Phase II ESA (MCI, 2018b) were included with the PEA Sampling results for the statistical analysis. The arsenic results from all the surface and near surface soil samples were then analyzed by statistical methods using the USEPA ProUCL software to determine the approximate maximum naturally-occurring background concentrations. The background statistics were then performed on all the arsenic results to determine the best statistical fit of the data. The data appeared to be within 5% significance of each the normal, gamma and lognormal distribution. The data was then plotted using Q-Q plots for each normal, gamma and lognormal distribution. The correlation coefficient (R-value) was evaluated for each of the different distributions to evaluate the concentration in the soils at the Site. The R-value for the normal distribution was 0.968. The R-value for the gamma distribution was 0.991. The R-value for the lognormal distribution was 0.989. The results of the ProUCL statistical analysis are included in Appendix E. The results indicate that all the arsenic concentrations detected at the Site represent naturally-occurring concentrations up to the maximum concentration detected of 11.5 mg/Kg.

Lead concentrations were detected in all but one of the soil samples collected from around the building perimeter exceeding the laboratory reporting limits. The concentrations detected ranged from 1.68 mg/Kg to 159 mg/Kg. Lead concentrations exceeded the DTSC-SL of 80 mg/Kg at one of the sampling locations (BP-2).

No PCBs were detected in any of the samples collected exceeding the laboratory reporting limits.

One duplicate surface soil sample was collected from the area north of former portables P-11/P-12 (near baseball field) (BP-1B). The lead concentration detected in the duplicate sample are very similar to the concentration of the original sample.

6.2 Former Agricultural Use

6.2.1 Soil Sampling and Analyses

To evaluate potential environmental concerns associated with historical agricultural cultivation, surface soil samples were collected at two locations(AG-1 and AG-2) along the northern trench and two locations (AG-3 and AG-4) along the eastern trench. Samples were collected from a depth of 0 to ½ foot bgs or from the first six inches of soil encountered below the asphalt. The approximate sampling locations are shown on Figure 6.

The samples were analyzed for OCPs (EPA Test Method 8081) and arsenic and lead (EPA Test Method 6010B).

6.2.2 Analytical Results

The laboratory results of the pesticides, arsenic and lead analyses are summarized in Table 4. The complete laboratory results are included in Appendix D.

The OCP results indicate that pesticides concentrations were detected at three of the four sampling locations. Concentrations of 4,4'-DDE or 4,4'-DDT were detected in at least one of the samples collected. Concentrations of 4,4'-DDE were detected ranging from 0.00765 mg/Kg to 0.252 mg/Kg. These concentrations are well below the single compound USEPA RSL of 2.0 mg/Kg for school uses. 4,4'-DDT was only detected exceeding the laboratory reporting limit in one of the discrete samples at concentration of 0.0302 mg/Kg. This concentration is well below the single compound USEPA RSL concentration of 1.9 mg/Kg for school uses. No other OCP was detected exceeding the laboratory reporting limit.

Arsenic was detected at three of the four sampling locations and ranged from 1.58 mg/Kg to 4.36 mg/Kg. As described above in Section 6.1.2, the arsenic concentrations appear to be within the estimated naturally-occurring background concentrations at the Site.

Lead concentrations were detected at three of the four sampling locations and ranged from 16.2 mg/Kg to 34.8 mg/Kg. None of the lead concentrations exceeded the DTSC-SL of 80 mg/Kg. The concentrations detected appeared generally consistent with naturally-occurring background concentrations ranging from 6.8 to 16.1 mg/Kg in northern Santa Clara County (Scott, 1991).

One duplicate surface soil sample was collected from the area along the northern trench line (AG-1B). The OCPs and lead concentrations detected in the duplicate samples are very similar to the concentrations of the original samples.

6.3 Investigation-Derived Waste

The investigated-derived waste (IDW) (i.e., soils) generated during this investigation was placed on the ground adjacent to the sampling points. Hand-sampling equipment was decontaminated using a three-bucket decontamination method. Rinsate water generated during the decontamination of the sampling equipment was discharged to the ground in the specific area being sampled. Used gloves were placed in plastic garbage bags and discarded in a municipal refuse dumpster.

6.4 Sampling Variances

The field sampling that was performed in general accordance with the DTSC-approved PEA Workplan. Variances from the Workplan included:

- Sampling locations BP-3 and BP-4 were slightly moved due to the construction of the foundation of some of the new classrooms.
- Per DTSC direction during the PEA Sampling, sampling location BP-6 was slightly moved due to the length of the custodial building and a new sampling location (BP-10) was added to evaluate potential drainage pattern from runoff along the custodial building.

- The six samples (two from each location) collected from BP-7, BP-8 and BP-9 were also analyzed for arsenic to aid in the statistical analysis of the arsenic data.

All the other sampling was performed in accordance with the PEA Workplan.

7.0 QUALITY ASSURANCE/QUALITY CONTROL

Laboratory analytical data from the samples collected at the Site were reviewed for data quality and usability in the risk evaluation. The initial Phase II samples and the PEA samples were analyzed at Pace National Analytical Laboratory in Mount Juliet, Tennessee. The confirmation samples for the remedial activities were all analyzed at Torrent Laboratory, Inc. in Milpitas, California. The NOA analysis was performed at Asbestos TEM Laboratories, Inc. in Berkeley, California.

7.1 Sample Receipt and Hold Times

The laboratory work order numbers for the previous Phase II sampling include the following: L1014122. The samples were collected on July 30, 2018 and received by labs on August 2, 2018. No adverse sample handling conditions were reported by the laboratory upon receipt of the samples. All samples were extracted and analyzed within the specified hold times.

The NOA analysis from Asbestos TEM Laboratories, Inc. is included in work order numbers 359829, 367081, 367501 and 1340-01483. The samples were collected on July 30, 2018 and, October 14 and 15, 2019 and December 6, 2019. Samples were received by labs on August 23, 2018, November 7, 2019, and December 6, 2019. No adverse sample handling conditions were reported by the laboratory upon receipt of the samples. No hold times are specified for the samples analyzed for NOA by PLM and TEM methods.

The laboratory work order numbers for the confirmation sampling include the following: 1910130, 1910131, 1910140, 1910146, and 1910268. The samples were collected on October 14, 15, 16, and 29, 2019, and received by labs on the same day. No adverse sample handling conditions were reported by the laboratory upon receipt of the samples. All samples were extracted and analyzed within the specified hold times.

For the PEA sampling, soil samples were recorded in two work orders identified as L1227097 and L1230611. Laboratory sample identification numbers for Site soil samples include: L1227097-01 through -016 and L1230611-01 through -06 . The samples were collected on June 5, 2020 and were received by the laboratories on June 9, 2020. No adverse sample handling conditions were reported by the laboratory upon receipt of the samples. All samples were extracted and analyzed within the specified hold times.

7.2 Evaluation of MS/MSD

Matrix spike/matrix spike duplicates (MS/MSD) were reviewed, by batch, for completeness and accuracy. The results are summarized below:

- For work order L1014122 one analytical batch (#WG1146936) was reviewed for the metal analysis and one analytical batch (#WG1147937) was reviewed for the OCPs analysis. The MS% Recovery and MSD% Recovery was reviewed for all the batches. For batch WG1490560, the lead had a MSD Qualifier stating the associated batch QC was outside the established quality control range for precision. For batch WG1147937, alpha BHC, Beta BHC, Gamma BHC, and dieldrin results had a MS Qualifier stating the sample matrix interfered with the ability to make any accurate determination; spike value is low. The endrin aldehyde result had a MS Qualifier stating the RPD between the primary and confirmatory analysis exceeded 40%. All of the pesticides results had a MSD qualifier that stated the sample matrix interfered with the ability to make any accurate determination; spike value is low. No problems were in any of the other QC summaries and all the other compounds were within the % Recovery Limits.

- For work order 1910130, one analytical batch (#443128) was reviewed for the metal analysis and one analytical batch (#443118) was reviewed for the OCPs analysis. The LCS% Recovery and LCSD% Recovery was reviewed and all compounds were within the % Recovery Limits. The control limits for the analytical batches were 30%.

- For work order 1910131, two analytical batch (#443121 and 443121) were reviewed for the metal analysis, one analytical batch (#443168) for lead and chromium (TCLP) and one analytical batch (#443118) was reviewed for the OCPs analysis. The LCS% Recovery and LCSD% Recovery was reviewed and all compounds were within the % Recovery Limits. The control limits for the analytical batches were 30%, except for batch 443168 which was 20%.

- For work order 1910140, one analytical batch (#443151) was reviewed for the OCPs analysis. The MS% Recovery and MSD% Recovery was reviewed and all compounds were within the % Recovery Limits. The LCS% Recovery and LCSD% Recovery was reviewed and all compounds were within the % Recovery Limits. The control limits for the analytical batches were 30%.

- For work order 1910146, one analytical batch (#443178) was reviewed for the OCPs analysis. The LCS% Recovery and LCSD% Recovery was reviewed and all compounds were within the % Recovery Limits. The control limits for the analytical batches were 30%.

  For work order 1910268, one analytical batch (#443484) was reviewed for the OCPs analysis. The LCS% Recovery and LCSD% Recovery was reviewed and all compounds were within the % Recovery Limits. The control limits for the analytical batches were 30%.

- For work order L1227097 two analytical batches (#WG1490492 and WG1490560) were reviewed for the metal analysis, two analytical batches (#WG1492151 and WG1493045) was reviewed for OCPs analysis and two analytical batches (#WG1491271 and WG1492151) was reviewed for PCBs analysis. The MS% Recovery and MSD% Recovery was reviewed for all the batches. For batch WG1490560, the lead had a MS Qualifier stating the sample matrix interfered with the ability to make any accurate determination and the spike value is high. Sample-01 (BP-1A) also had a qualifier stating the analyte failed the method required serial dilution test and/or subsequent post-spike criteria and these failures indicate matrix interference. For batch WG1492151, the endosulfan sulfate results had a MSD qualifier that stated the associated batch QC was outside the established quality control range for precision. No problems were in any of the other QC summaries and all the other compounds were within the % Recovery Limits.

- For work order L1230611, one analytical batch (#WG1496416) was reviewed for the metal analysis. The MS% Recovery and MSD% Recovery was reviewed and all compounds were within the % Recovery Limits. The control limits for the analytical batch was 20%.

7.3 Reporting Limits

All undiluted reporting limits were at or below the various specified screening levels. A few "J" flags for pesticides and arsenic in some of the samples indicate estimated concentrations between the Method Detection Limit (MDL) and the Reported Detection Limit (RDL); in these instances, the reported concentrations should be considered estimates rather than quantitative.

All the samples were analyzed at a standard dilution of 1x, unless the samples were diluted due to the nature of the matrix (dark, viscous extract).

8.0 HUMAN HEALTH SCREENING EVALUATION

8.1 Arsenic

Arsenic is a naturally-occurring element that is typically present in soils in the San Francisco Bay Area at concentrations that equal or exceed health risk-based screening levels. Arsenic was detected in 20 of the soil samples collected from the Site and ranged from an estimated concentration of 0.971 to 11.5 mg/Kg. The arsenic results (including 11 sampling results from the previous phase II sampling) were analyzed by statistical methods using the USEPA ProUCL software as described in Section 6.1.2. The ProUCL results indicate that the maximum concentration detected of 11.5 mg/Kg is within the naturally-occurring background concentration (Appendix E).

8.2 Lead

Lead concentrations were present at the Site exceeding DTSC-SL for sensitive uses of 80 mg/Kg in soils along the southern side of the small gym. The lead-impacted soil was removed and confirmation sampling indicated that the remaining lead concentrations were within naturally-occurring background concentrations. Lead concentrations identified during the PEA sampling are present at the Site exceeding DTSC-SL for sensitive uses of 80 mg/Kg in soils along the eastern perimeter of the Site (BP-2). Based on the elevated lead concentrations, there is an unacceptable risk to future Site users and mitigation will be required at the Site.

8.3 Naturally-Occurring Asbestos

The NOA concentrations in the alluvial soils underlying the entire Site exceed the DTSC Schools Programs guidelines for NOA. To prevent future exposure to Site soils, all soils will be capped with either classroom buildings, hardscape, artificial turf, or capped with clean import fill soils 6 inches to 1 foot in thickness that is approved prior to import to the Site.

8.4 Carcinogenic Risk

Carcinogenic compounds identified at the Site are shown in Table 6. To evaluate the theoretical cumulative cancer risk, the ratio sum method was used, as described USEPA RSL guidance documents. In this method, cumulative cancer risk is estimated by summing the ratio of the detected concentrations for chemicals with cancer effects divided by the respective single-compound DTSC-SLs or USEPA RSLs, and multiplied by 10^{-6}, which yields a conservative estimate of the excess risk of cancer for exposure to these chemicals.

The cumulative cancer risk for theoretical exposure to detected compounds is estimated at 7.89 $x10^{-7}$, which is less than the DTSC excess cancer risk recommendation of 1 x 10^{-6}.

8.5 Non-Carcinogenic Risk

The cumulative non-cancer Hazard Index (HI) for chemicals with non-cancer effects is calculated to be 0.0011 which is less than the maximum value of 1.0 and is therefore indicating acceptable concentrations of chemicals.

9.0 ECOLOGICAL SCREENING EVALUATION

9.1 Site Characterization

As shown on Figure 2, the entire high school and Site is surrounded on the northern, eastern, southern and western sides by single-family residential structures. There are no wildlife habitats in the immediate vicinity of the Site.

9.2 Biological Characterization

Based on current Site usage and the lack of wildlife habitats in the immediate vicinity of the Site, a biological resource report was not deemed necessary.

10.0 PUBLIC PARTICIPATION

The public outreach for the PEA started with providing a notification of the field sampling work to residents within line of sight of the Site. The notice was reviewed and approved by the DTSC. The District's current intention is to make the PEA available for public review by Education Code, section 17213.1, subdivision (a)(6A), (or "option A"), where the PEA review is reviewed independently of the California Environmental Quality Act (CEQA) review. Copies of the report will be placed at the Los Altos Library, at the Mountain View Los Altos Union High School District Office, and on DTSC's Envirostor database. A public notice will be placed in the local paper, announcing the availability of the PEA for review, the locations, and the date of the public hearing.

11.0 CONCLUSIONS AND RECOMMENDATIONS

A Phase II ESA was previously performed (McCloskey, 2018b) to evaluate if contamination was present on the Site. Elevated lead and OCP concentrations were identified in the soil around one of the former structures. Prior to redevelopment of the Site, the impacted soils that exceeded the regulatory thresholds were removed from the Site and disposed at an appropriately licensed landfill. Confirmation sampling was performed on the excavations to verify all the impact soil

was removed prior to mass grading activities. The previous Phase II ESA sampling and the confirmation sampling was performed prior to the DTSC involvement and was done in accordance with DTSC guidance.

ThePEA sampling was performed to evaluate additional concerns identified by the DTSC. The environmental concerns identified prior to sampling that could have posed a health risk included flaking of lead-based paint around current and historical structures, surface application or injection of OCPs around building perimeters, PCB flaking associated with window caulking and glazing, and NOA. Soil sampling was performed in accordance with the DTSC-approved PEA Workplan to evaluate these concerns (MCI, 2020).

Conclusions of the previous Phase II ESA, remedial activities and PEA investigation are summarized below:

- **Lead-Based Paint** –Lead-based paint results indicate that flaking of lead-based paint likely occurred in one area of the Site, it was removed. The PEA sampling identified another area of elevated lead of unknown origin and further investigation is recommended.
- **PCBs** – PCB results indicate that significant flaking of PCBs from window caulking or glazing did not occur, and no further investigation is recommended.
- **OCPs and Arsenic** – OCP results indicate minimal residues from prior agricultural use. Only 4,4'-DDD, 4,4'-DDE,4,4'-DDT and dieldrin (removed) were detected at low concentrations, and no further investigation is recommended. The statistical analysis indicated that the background concentration for arsenic were present at the Site, and no further investigation is recommended.
- **Naturally-Occurring Asbestos** – NOA results indicate that concentrations exceed the DTSC school guidance, and to prevent future exposure to Site soils, all soils will be capped with either classroom buildings, hardscape, artificial turf, or capped with clean import fill soils 6 inches to 1 foot in thickness that is approved prior to import to the Site.
- **Human Health Risk Evaluation** – Cancer and non-cancer risks were estimated based on the detected concentrations of chemicals at the Site:
    - The cumulative cancer risk for theoretical exposure to detected compounds is estimated at 8.92×10^{-7}, which was less than the DTSC excess cancer risk recommendation of 1×10^{-6}.
    - The cumulative non-carcinogenic health hazard index (HI) was estimated at 0.0011, indicating acceptable concentrations of chemicals (i.e., HI<1).

One man-made contaminant (lead) was identified in the soils east of the former portables that exceed DTSC Schools Program acceptable risk guidelines. The lateral and vertical extent of affected soil is not fully delineated and additional soil sampling is recommended to complete

characterization of elevated concentrations. In the DTSC Schools Program process, this is done by performing a Supplement Site Investigation (SSI). At the completion of the SSI, the District would prepare an SSI Report with an updated screening level human health risk analysis.

The elevated metals concentrations identified in shallow would most likely be mitigated by excavation. The soil would be off-hauled and disposed of at an appropriately-licensed landfill prior to Site development. Some of this soil may exceed hazardous waste concentrations which would result in much greater disposal costs. The removal would need to be done under DTSC oversight.

The NOA concentrations in the alluvial soils underlying the entire Site exceed the DTSC Schools Program guidelines for NOA. To prevent future exposure to Site soils, all soils will be capped with either classroom buildings, hardscape, artificial turf, or capped with clean import fill soils 6 inches to 1 foot in thickness that is approved prior to import to the Site.

12.0 LIMITATIONS

This report was prepared for the sole use of Mountain View-Los Altos Union High School District and the California DTSC in evaluating soil quality at the time of this study. We make no warranty, expressed or implied, except that our services have been performed in accordance with environmental principles generally accepted at this time and location. The chemical and other data presented in this report can change over time and are applicable only to the time this study was performed. We are not responsible for data presented by others. The accuracy and reliability of contaminant studies are a reflection of the number and type of samples taken and extent of the analyses conducted and are thus inherently limited and can be dependent upon the resources expended. Chemical analyses were performed for specific parameters during this investigation. Our sampling and analytical plan was designed using accepted environmental principles and our judgment for the performance of a soil quality evaluation and based on the degree of investigation approved by the California DTSC. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information.

13.0 REFERENCES

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TABLES

Table 1. Summary Results for the Pesticide and Metals from Previously Phase II Sampling

Los Altos High School Expansion

201 Almond Avenue, Los Altos, California

Sample ID	Approximate Sampling Depth	Approximate Sampling Location	Date Sampled	Arsenic	Lead	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Heptachlor	Heptachlor Epoxide	Hexachloro Benzene	Methoxychlor	Chlordane	Toxaphene
Concentrations in milligrams per kilogram (mg/Kg)																										
SS-1	0-½ bgs	**Perimeter of Small Gym**	07/30/2018	**9.12**	**53.7**	<0.0238	<0.0238	<0.0238	<0.0238	**0.00083**	**0.00204**	**0.00624**	**0.0227**	**0.0548**	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	**0.153**	<0.475
SS-2	0-½ bgs		07/30/2018	**5.73**	**15.8**	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	**0.185**	**0.0751**	**0.0189**	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.227	<0.455
SS-3	0-½ bgs		07/30/2018	**6.93**	**602**	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	**0.00446**	**0.0224**	**0.0389**	**0.061**	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	**0.00724**	<0.0224	<0.0224	<0.0224	**0.16**	<0.447
SS-4	0-½ bgs		07/30/2018	**3.83**	**11.4**	<0.0239	<0.0239	<0.0239	<0.0239	<0.0239	<0.0239	**0.00601**	<0.0239	**0.0007**	<0.0239	<0.0239	<0.0239	<0.0239	<0.0239	<0.0239	<0.0239	<0.0239	<0.0239	<0.0239	<0.239	<0.477
SS-5	½-1 bgs	**Historical Agricultural Sampling**	07/30/2018	**6.62**	--	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	**0.00036**	**0.0283**	**0.0049**	**0.0247**	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.219	<0.438
SS-6	½-1 bgs		07/30/2018	**0.971**	--	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.00224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.224	<0.448
SS-7	1-1½ bgs		07/30/2018	**1.91**	--	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.00227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.0227	<0.227	<0.453
SS-8	½-1 bgs		07/30/2018	**9.7**	--	<0.0226	<0.0226	<0.0226	<0.0226	<0.0226	**0.00198**	**0.135**	**0.0139**	<0.00226	<0.0226	<0.0226	<0.0226	<0.0226	<0.0226	<0.0226	<0.0226	<0.0226	<0.0226	<0.0226	<0.226	<0.453
SS-9	½-1 bgs	**Perimeter of 600 Wing Classroom Building**	07/30/2018	**2.55**	**5.21**	<0.0222	<0.0222	<0.0222	<0.0222	<0.0222	**0.00025**	**0.00098**	**0.00141**	<0.00222	<0.0222	<0.0222	<0.0222	<0.0222	<0.0222	<0.0222	<0.0222	<0.0222	<0.0222	<0.0222	<0.222	<0.445
SS-10	½-1 bgs		07/30/2018	**2.49**	**1.26**	<0.0221	<0.0221	<0.0221	<0.0221	<0.0221	<0.0221	<0.0221	<0.0221	<0.00221	<0.0221	<0.0221	<0.0221	<0.0221	<0.0221	<0.0221	<0.0221	<0.0221	<0.0221	<0.0221	<0.221	<0.441
SS-11	½-1 bgs		07/30/2018	**2.42**	**2.92**	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	**0.00021**	<0.0225	<0.00225	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	<0.0225	<0.225	<0.451
USEPA RSL - Residential				**0.68***	**400**	**0.039**	**0.086**	**0.30**	**NE**	**0.57**	**1.9**	**2.0**	**1.9**	**0.034**	**470****	**470****	**NE**	**19**	**NE**	**NE**	**0.13**	**0.07**	**0.21**	**320**	**1.7**	**0.49**
HERO HHRA Note 3				**0.11***	**80**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.440**	**NE**
TTLC				**500**	**1,000**	**1.4**	**NE**	**NE**	**NE**	**4.0**	**NE**	**NE**	**NE**	**8.0**	**NE**	**NE**	**NE**	**0.2**	**NE**	**NE**	**4.7**	**NE**	**NE**	**100.0**	**2.5**	**5.0**

<D.L.	Indicates that the compound was not detected at or above stated laboratory detection limits.	USEPA RSL	United States Environmental Protection Agency Regional Screening Levels for Residenial Uses (May 2018)	--	Not Analyzed
NE	Not established.	HERO HHRA Note 3	DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3, DTSC-Modified Screening Levels, June 2018.	*	Cal/EPA does not require cleanup of soil to less than background concentrations. Natural background concentrations of arsenic often exceeds the health-based goals in soil.
NA	Not Applicable	TTLC	Total threshold limit concentration for hazardous waste classification.	**	RSL for Endosulfan
				BOLD	Indicates exceedance of regulatory threshold

Table 2. Summary Results for NOA in Soils

Approximate Location	Sample ID	Approximate Sampling Depth	Transmission Electron Microscopy[1]
Northern Perimeter of Small Gym	SS-1	0-½ bgs	<0.001%
North of 600 Wing Classroom Building	SS-8	1-2 bgs	**0.031%**
Eastern Side of 600 Wing Classroom	SS-11	1-2 bgs	**0.077%**
East of Portables P-11-P-12	SS-12	2-3' bgs	**0.27%**
Southern Perimeter of Small Gym	SS-13	1½-2 bgs	**0.77%**
East of Former Portables P-13-P-16	BP-1	0-½ bgs	**0.113%**
Near Former Portables P-11-P-12	BP-2	0-½ bgs	**0.421%**
Northern of Former Small Gym	BP-3	0-½ bgs	**0.057%**
Along Northern Utility Line	UT-1	0-½ bgs	**0.062%**
DTSC Schools Unit Screening Level			**<25% of Samples >0.01%**

[1] TEM NOA EPA /CARB Quantitative

<D.L. Indicates that the compound was not detected at or above stated laboratory detection limits.

BOLD Indicates exceedance of regulatory threshold

DTSC Screening Level - DTSC School Division screening concentration

Table 3. Summary Results for Previous Confirmation Sampling

(Concentrations in milligrams per kilogram [mg/kg])

Approximate Location	Sample ID	Approximate Sampling Depth	Date Sampled	Lead	alpha-BHC	gamma-BHC (Lindane)	beta-BHC	delta-BHC	Heptachlor	Aldrin	Heptachlor Epoxide	gamma-Chlordane	alpha-Chlordane	4,4'-DDE	Endosulfan I	Dieldrin	Endrin	4,4'-DDD	Endosulfan II	4,4'-DDT	Endrin Aldehyde	Methoxychlor	Endosulfan Sulfate	Endrin Ketone	Chlordane	Toxaphene
Excavation A - Southern Side of Small Gym	EX-A-SW-1	¾ bgs	10/14/2019	**19.8**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**0.00252 J**	**0.00208 J**	**0.00631 J**	<0.020	**0.0542**	<0.020	<0.020	<0.020	**0.017 J**	<0.020	<0.020	<0.020	<0.020	<0.021	<0.085
	EX-A-SW-1A	¾ bgs	10/16/2019	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.0102**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.020	<0.050
	EX-A-SW-2	¾ bgs	10/14/2019	**15.8**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**0.0296**	<0.020	**0.00423 J**	<0.020	<0.020	<0.020	**0.00504 J**	<0.020	<0.020	<0.020	<0.020	<0.021	<0.085
	EX-A-SW-3	¾ bgs	10/14/2019	**22.7**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**0.0808**	<0.020	**0.00187 J**	<0.020	<0.020	<0.020	**0.00885 J**	<0.020	<0.020	<0.020	<0.020	<0.021	<0.085
	EX-A-SW-4	¾ bgs	10/14/2019	**22.4**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**0.067**	<0.020	**0.00817 J**	<0.020	<0.020	<0.020	**0.0138 J**	<0.020	<0.020	<0.020	<0.020	<0.021	<0.085
	EX-A-B-1A	1½ bgs	10/14/2019	**20.8**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**0.0493**	<0.020	**0.0212**	<0.020	<0.020	<0.020	**0.0187 J**	<0.020	<0.020	<0.020	<0.020	<0.021	<0.085
	EX-A-B-1B (Dup)	1½ bgs	10/14/2019	**22.3**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**0.0394**	<0.020	**0.0137 J**	<0.020	<0.020	<0.020	**0.0146 J**	<0.020	<0.020	<0.020	<0.020	<0.021	<0.085
	EX-A-B-2	1½ bgs	10/14/2019	**23.9**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**0.0286**	<0.020	**0.0132 J**	<0.020	<0.020	<0.020	**0.0324**	<0.020	<0.020	<0.020	<0.020	<0.021	<0.085
Excavation B - Northern Side of Small Gym	EX-B-SW-1	½ bgs	10/15/2019	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.0178**	<0.002	**0.389**	**0.00392**	<0.002	<0.002	**0.0473**	<0.002	<0.002	<0.002	<0.002	<0.020	<0.050
	EX-B-SW-1A	1 bgs	10/29/2019	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.00692**	<0.002	**0.00429**	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.020	<0.050
	EX-B-SW-2	½ bgs	10/15/2019	--	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**0.00414 J**	**0.00327 J**	**0.0302**	<0.020	**0.0513**	<0.020	<0.020	<0.020	**0.0298**	<0.020	<0.020	<0.020	<0.020	**0.0345 J**	<0.085
	EX-B-SW-2A	1 bgs	10/29/2019	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.0263**	<0.002	**0.00513**	<0.002	<0.002	<0.002	**0.00279**	<0.002	<0.002	<0.002	<0.002	<0.020	<0.050
	EX-B-SW-3A	½ bgs	10/15/2019	--	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**0.0224**	<0.020	**0.00467 J**	<0.020	<0.020	<0.020	**0.00901 J**	<0.020	<0.020	<0.020	<0.020	<0.021	<0.085
	EX-B-SW-3B (Dup)	½ bgs	10/15/2019	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.0209**	<0.002	**0.00402**	<0.002	<0.002	<0.002	**0.00941**	<0.002	<0.002	<0.002	<0.002	<0.020	<0.050
	EX-B-SW-4	½ bgs	10/15/2019	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.0348**	<0.002	**0.00599**	<0.002	<0.002	<0.002	**0.00888**	<0.002	<0.002	<0.002	<0.002	<0.020	<0.050
	EX-B-SW-5	½ bgs	10/15/2019	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.0553**	<0.002	**0.00311**	<0.002	<0.002	<0.002	**0.00481**	<0.002	<0.002	<0.002	<0.002	<0.020	<0.050
	EX-B-B-1	1 bgs	10/15/2019	--	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	**0.00388 J**	**0.00252 J**	**0.1120**	<0.020	**0.0693**	<0.020	<0.020	<0.020	**0.0376**	<0.020	<0.020	<0.020	<0.020	**0.0269 J**	<0.085
	EX-B-B-1A	2 bgs	10/29/2019	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.028**	<0.002	**0.00296**	<0.002	<0.002	<0.002	**0.00209**	<0.002	<0.002	<0.002	<0.002	<0.020	<0.050
	EX-B-B-2	1 bgs	10/15/2019	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.00541**	<0.002	**0.00266**	<0.002	<0.002	<0.002	**0.0299**	<0.002	<0.002	<0.002	<0.002	<0.020	<0.050
	EX-B-B-3	1 bgs	10/15/2019	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.00236**	<0.002	**0.00203**	<0.002	**0.0159**	<0.002	<0.002	<0.002	<0.002	<0.020	<0.050
USEPA RSL - Residential				**400**	**0.086**	**0.57**	**0.30**	**NE**	**0.13**	**0.039**	**0.07**	**NE**	**NE**	**2.0**	**470****	**0.034**	**19**	**1.9**	**470****	**1.9**	**NE**	**320**	**380**	**NE**	**1.7**	**0.49**
HERO HHRA Note 3				**80**	**0.086**	**0.57**	**0.30**	**0.14**	**0.13**	**0.039**	**0.07**	**NE**	**NE**	**2.0**	**450****	**0.034**	**19**	**1.9**	**450****	**1.9**	**NE**	**320**	**NE**	**NE**	**1.7**	**0.45**
TTLC				**1,000**	**NE**	**4.0**	**NE**	**NE**	**4.7**	**1.4**	**NE**	**NE**	**NE**	**NE**	**NE**	**8.0**	**0.2**	**NE**	**NE**	**NE**	**NE**	**100.0**	**NE**	**NE**	**2.5**	**5.0**

<D.L.	Indicates that the compound was not detected at or above stated laboratory detection limits.	--	Not Analyzed	*	
NE	Not established.	USEPA RSL	United States Environmental Protection Agency Regional Screening Levels for Residenial Uses (November 2019)		
NA	Not Applicable	HERO HHRA Note 3	DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3, DTSC-Modified Screening Levels, April 2019.	**	RSL/ DTSC SL for Endosulfan
(Dup)	Duplicate Sample	TTLC	Total threshold limit concentration for hazardous waste classification.		
		BOLD	Indicates exceedance of regulatory threshold and areas excavated and removed from the Site during remediation activities.		

Table 4. Summary Results for Los Altos High School PEA Pesticides and Metals Sampling

(Concentrations in milligrams per kilogram [mg/kg])

Approximate Location	Sample ID	Approximate Sampling Depth	Date Sampled	Arsenic	Lead	Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Heptachlor	Heptachlor Epoxide	Hexachloro benzene	Methoxychlor	Chlordane (Technical)	Toxaphene
Building Perimeter Sampling	BP-1A	0-½'bgs	6/5/2020	--	**38.7**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	BP-1B (Duplicate)	0-½'bgs	6/5/2020	--	**33.9**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	BP-2	0-½'bgs	6/5/2020	--	**159**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	BP-3	0-½'bgs	6/5/2020	**<1.12[1]**	**3.99**	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	**0.00682**	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.337	<0.139[1]
	BP-4	0-½'bgs	6/5/2020	**<1.28[1]**	**<0.641**	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.0257	<0.385	<0.159[1]
	BP-5	0-½'bgs	6/5/2020	**<1.12[1]**	**1.68**	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.0224	<0.336	<0.139[1]
	BP-6	0-½'bgs	6/5/2020	--	**21**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	BP-7	¾-1' bgs	6/5/2020	**3.93**	**1.95**	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.0229	<0.344	<0.142[1]
	BP-7	1½-2' bgs	6/5/2020	**11.5**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	BP-8	½-1' bgs	6/5/2020	**5.37**	**73.6**	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	**0.0136**	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.351	<0.145[1]
	BP-8	1½-2' bgs	6/5/2020	**8.07**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	BP-9	½-1' bgs	6/5/2020	**4.28**	**13**	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	**0.0117**	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.0234	<0.352	<0.145[1]
	BP-9	1½-2' bgs	6/5/2020	**4.00**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	BP-10	0-½'bgs	6/5/2020	--	**21.6**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Agricultural Sampling	AG-1A	0-½'bgs	6/5/2020	**<1.27**	**21.6**	<0.0254	<0.0254	<0.0254	<0.0254	<0.0254	<0.0254	**0.00882 J**	<0.0254	<0.0254	<0.0254	<0.0254	<0.0254	<0.0254	<0.0254	<0.0254	<0.0254	<0.0254	<0.0254	<0.0254	<0.381	<0.158[1]
	AG-1B (Duplicate)	0-½'bgs	6/5/2020	**1.58**	**26.4**	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	**0.00765 J**	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.0238	<0.356	<0.147[1]
	AG-2	0-½'bgs	6/5/2020	**<2.54[1]**	**<2.76**	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.0220	<0.331	<0.137[1]
	AG-3	0-½'bgs	6/5/2020	**4.36**	**34.8**	<0.0218	<0.0218	<0.0218	<0.0218	<0.0218	<0.0218	**0.252**	**0.0302**	<0.0218	<0.0218	<0.0218	<0.0218	<0.0218	<0.0218	<0.0218	<0.0218	<0.0218	<0.0218	<0.0218	<0.327	<0.135[1]
	AG-4	0-½'bgs	6/5/2020	**2.17**	**16.2**	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	**0.048**	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.0219	<0.329	<0.136[1]
USEPA RSL - Residential				**0.68***	**400**	**0.039**	**0.086**	**0.30**	**NE**	**0.57**	**1.9**	**2.0**	**1.9**	**0.034**	**470*****	**470*****	**380**	**19**	**NE**	**NE**	**0.13**	**0.07**	**0.21**	**320**	**1.7**	**0.49**
HERO HHRA Note 3 - DTSC-SLs				**0.11***	**80**	**0.039**	**0.086**	**0.30**	**0.14****	**0.57**	**1.9**	**2.0**	**1.9**	**0.034**	**450*****	**450*****	**NE**	**19**	**NE**	**NE**	**0.13**	**0.07**	**0.19**	**320**	**1.7**	**0.45**
TTLC				**500**	**1,000**	**1.4**	**NE**	**NE**	**NE**	**4.0**	**NE**	**NE**	**NE**	**8.0**	**NE**	**NE**	**NE**	**0.2**	**NE**	**NE**	**4.7**	**NE**	**NE**	**100.0**	**2.5**	**5.0**

<D.L.	Indicates that the compound was not detected at or above stated laboratory detection limits.	--	Not Analyzed	*	Cal/EPA does not require cleanup of soil to less than background concentrations. Natural background concentrations of arsenic often exceeds the health-based goals in soil.
NE	Not established.	USEPA RSL	United States Environmental Protection Agency Regional Screening Levels for Residenial Uses (May 2020)	**	delta BHC listed under HCH- mix-isomers for DTSC-SL
NA	Not Applicable	HERO HHRA Note 3	DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3, DTSC-Modified Screening Levels, April 2019.	***	RSL/ DTSC SL for Endosulfan
(Dup)	Duplicate Sample	TTLC	Total threshold limit concentration for hazardous waste classification.		
BHC	Compounds listed under Hexachlorocyclohexanes in USEPA RSLs or HCHs in DTSC-SLs	**BOLD**	Indicates exceedance of regulatory threshold		
[1]	Reported to Method Detection Limit (MDL)				

Table 5. Summary Results for Los Altos High School PEA PCBs Sampling

(Concentrations in milligrams per kilogram [mg/kg])

Approximate Location	Sample ID	Approximate Sampling Depth	Date Sampled	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260
Building Perimeter Sampling	BP-3	0-½'bgs	6/5/2020	<0.0381	<0.0381	<0.0381	<0.0381	<0.0191	<0.0191	<0.0191
	BP-4	0-½'bgs	6/5/2020	<0.0436	<0.0436	<0.0436	<0.0436	<0.0218	<0.0218	<0.0218
	BP-5	0-½'bgs	6/5/2020	<0.0381	<0.0381	<0.0381	<0.0381	<0.0191	<0.0191	<0.0191
	BP-6	0-½'bgs	6/5/2020	<0.0387	<0.0387	<0.0387	<0.0387	<0.0194	<0.0194	<0.0194
	BP-10	0-½'bgs	6/5/2020	<0.0409	<0.0409	<0.0409	<0.0409	<0.0204	<0.0204	<0.0204
USEPA RSL - Residential/HERO HHRA Note 3 - DTSC-SLs				**4.1**	**0.2**	**0.17**	**0.230**	**0.23**	**0.24**	**0.24**

<D.L.	Indicates that the compound was not detected at or above stated laboratory detection limits.
USEPA RSL	United States Environmental Protection Agency Regional Screening Levels for Residenial Uses (May 2020)
HERO HHRA Note 3	DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3, DTSC-Modified Screening Levels, April 2019.

Table 6. Cumulative Health Risk Determination for Site Soils – Residential Exposure Scenario

(Concentrations in milligrams per kilogram [mg/kg])

Contaminant	Health Effects*	Maximum Concentration Detected	USEPA RSL[1]	[Conc]/[Regulatory Threshold]
4,4'-DDD	N	0.00203	1.9 [1]	0.0011
4,4'-DDE	C	0.252	2.0 [1]	0.1260
4-4'-DDT	C	0.0751	1.9 [1]	0.0395
Dieldrin	C	0.0247	0.034 [1]	0.7265

Cumulative Risk[2]	8.92×10^{-7}
Non-Cancer Hazard Index[3]	0.0011

[1]USEPA RSL - United States Environmental Protection Agency Regional Screening Levels for sensitive uses

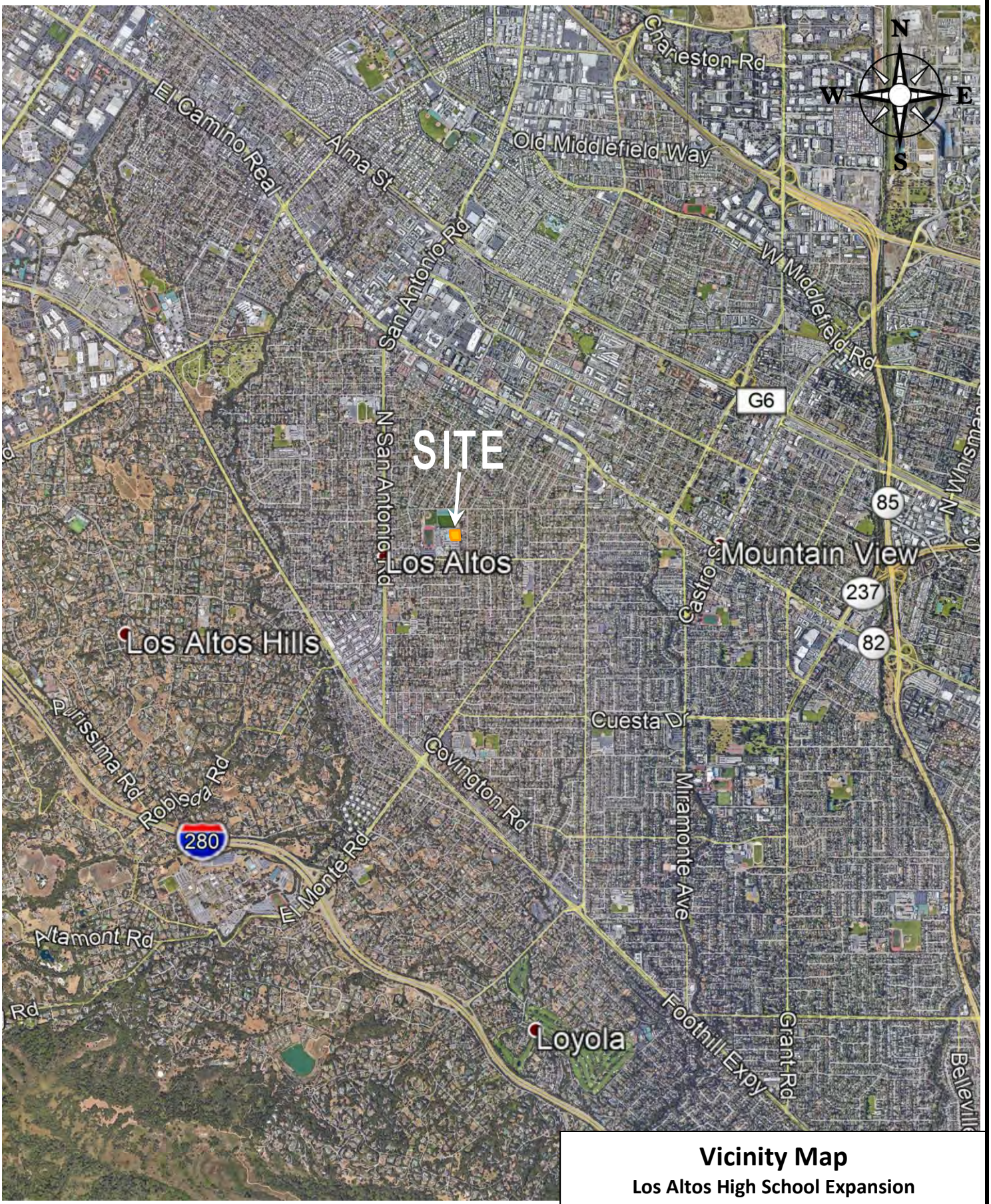
[2] Cumulative Risk - calculated by summing the ratio of the detected concentrations for chemicals with cancer effects divided by the respective single-compound USEPA RSL and multiplied by 10-6 which yields a conservative estimate of the excess risk of cancer for exposure to these chemicals.

[3] Hazard Index – (Cal/EPA, 2005) calculated by summing the ratio of the detected concentrations for chemicals with non-cancer effects divided by the respective single-compound

USEPA RSL, which yields an estimate of non-cancer effects. A hazard index greater than one suggests further evaluation is necessary.

*Health Effects: C = Cancer / N = Non-cancer

FIGURES



Vicinity Map

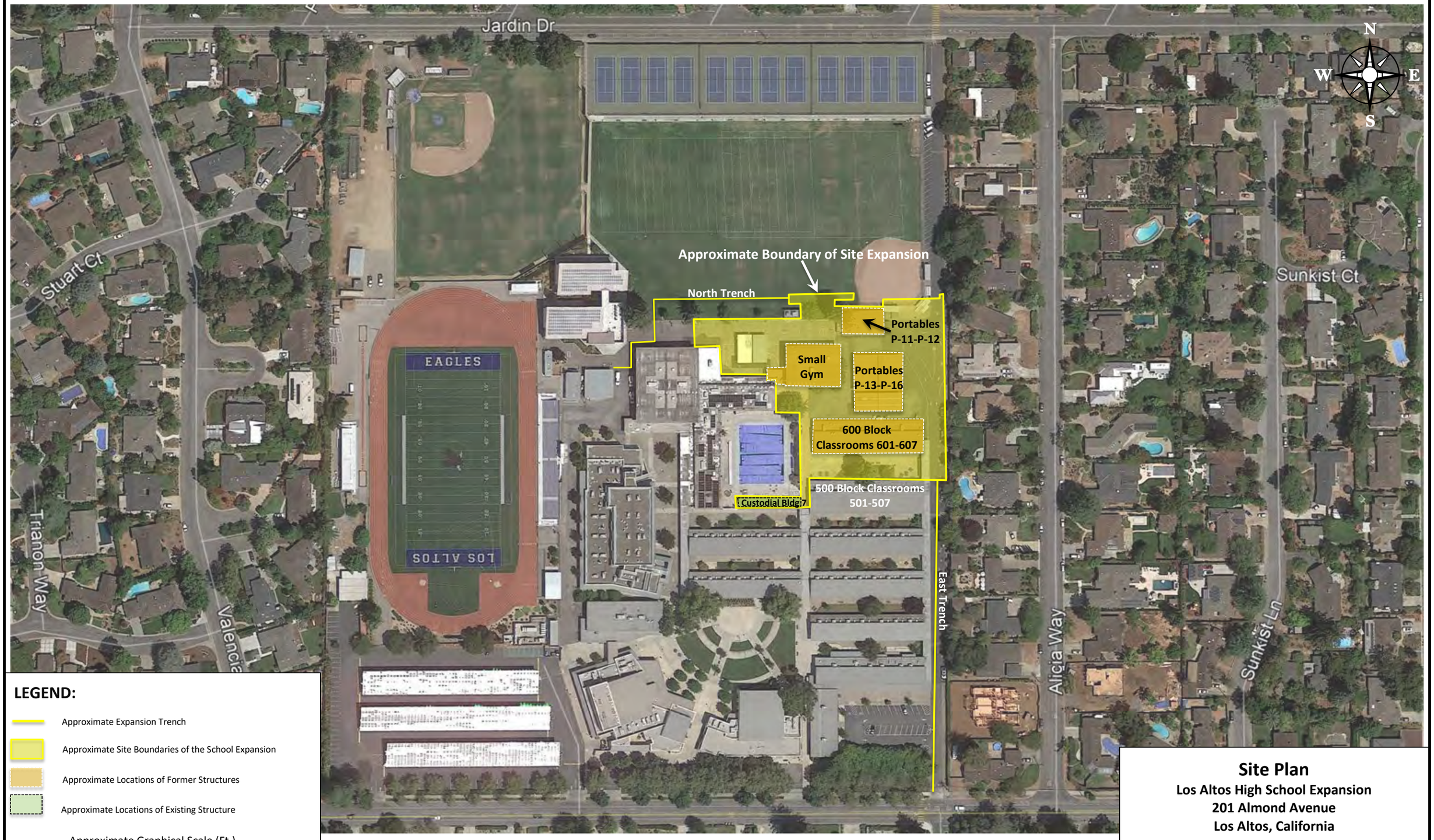
Los Altos High School Expansion

201 Almond Avenue

Los Altos, California

FIGURE 1

McCloskey Consultants



LEGEND:

- Approximate Expansion Trench
- Approximate Site Boundaries of the School Expansion
- Approximate Locations of Former Structures
- Approximate Locations of Existing Structure

Approximate Graphical Scale (Ft.)

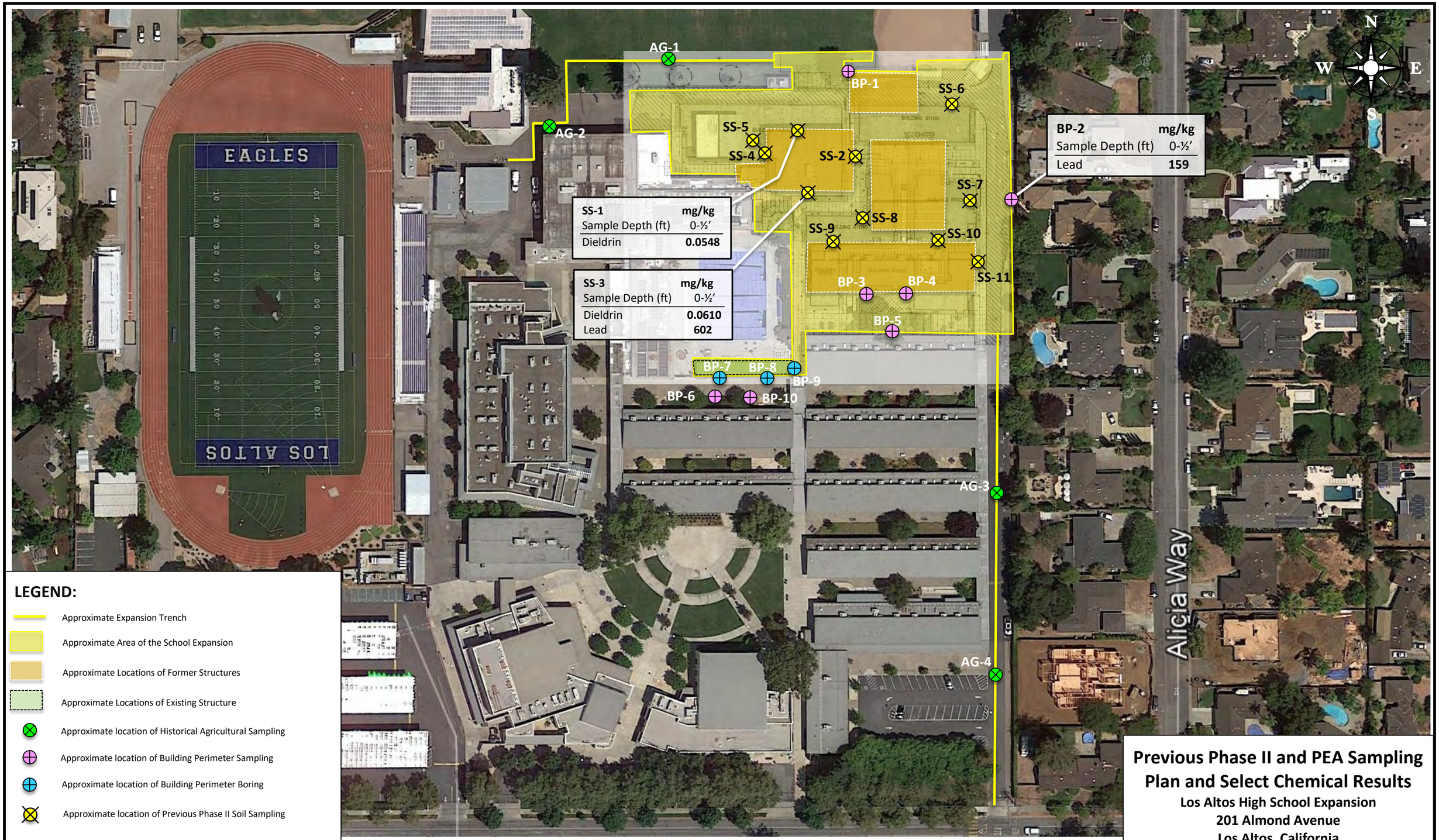
0 150 300

Site Plan

Los Altos High School Expansion
201 Almond Avenue
Los Altos, California

FIGURE 2

McCloskey Consultants



LEGEND:

- Approximate Expansion Trench
- Approximate Area of the School Expansion
- Approximate Locations of Former Structures
- Approximate Locations of Existing Structure
- Approximate location of Historical Agricultural Sampling
- Approximate location of Building Perimeter Sampling
- Approximate location of Building Perimeter Boring
- Approximate location of Previous Phase II Soil Sampling

Approximate Graphical Scale (Ft.)

0 100 200

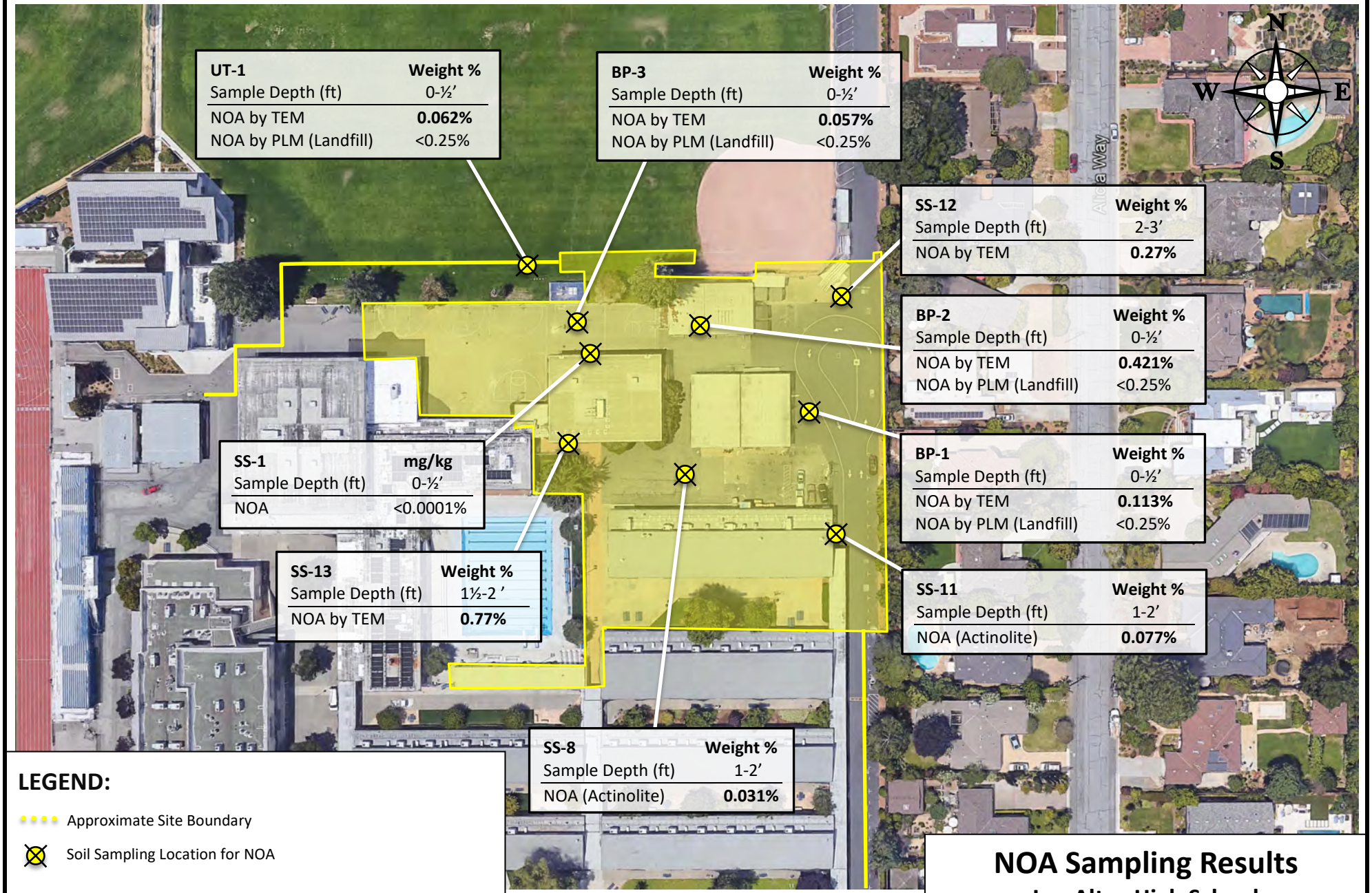
Notes :
Soil concentrations in mg/kg – milligrams per kilogram.
BOLD indicates exceedance of regulatory threshold.

Previous Phase II and PEA Sampling Plan and Select Chemical Results

Los Altos High School Expansion
201 Almond Avenue
Los Altos, California

FIGURE 3

McCloskey Consultants



LEGEND:

- Approximate Site Boundary
- Soil Sampling Location for NOA

BOLD – Indicates Exceedance of Regulatory Thresholds or Naturally-Occurring Background Concentrations

NOA sample results in Calculated Asbestos Concentration (Weight %) for Transmission Electron Microscopy (TEM).

PLM – Polarized Light Microscopy

Approximate Graphical Scale (Ft.)

0 100 200

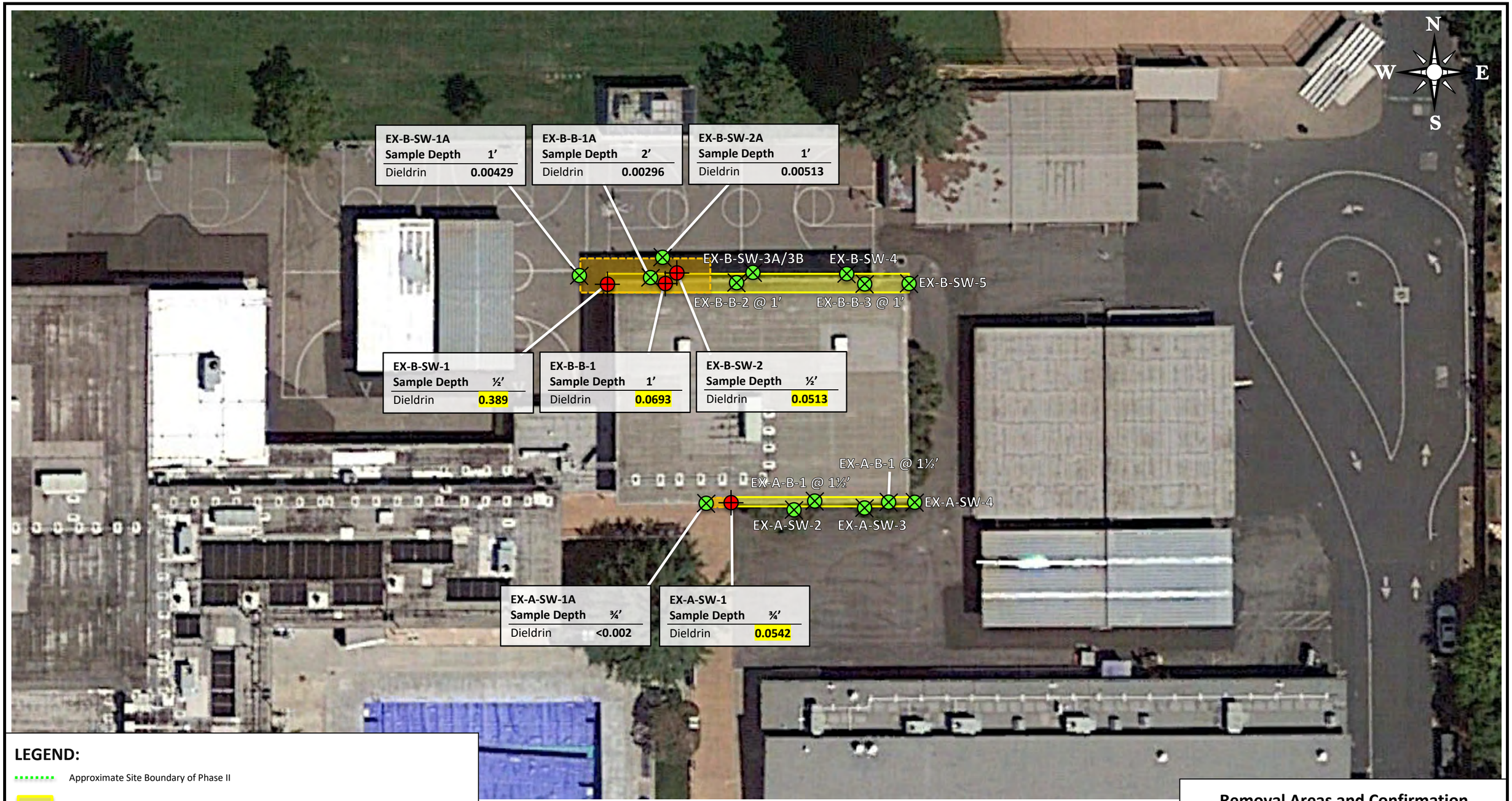
NOA Sampling Results

Los Altos High School

201 Almond Avenue
Los Altos, California

FIGURE 4

McCloskey Consultants



LEGEND:

- Approximate Site Boundary of Phase II
- Approximate Location of Initial Removal Areas
- Approximate Location of Additional Removal Areas
- Approximate Location of Samples Less Than the Removal Action Levels
- Approximate Location of Samples that Exceeded the Removal Action Levels

Notes:

mg/Kg – milligrams per kilograms

--- Not Analyzed

Highlighted indicated exceedance of regulatory thresholds

Approximate Graphical Scale (Ft.)

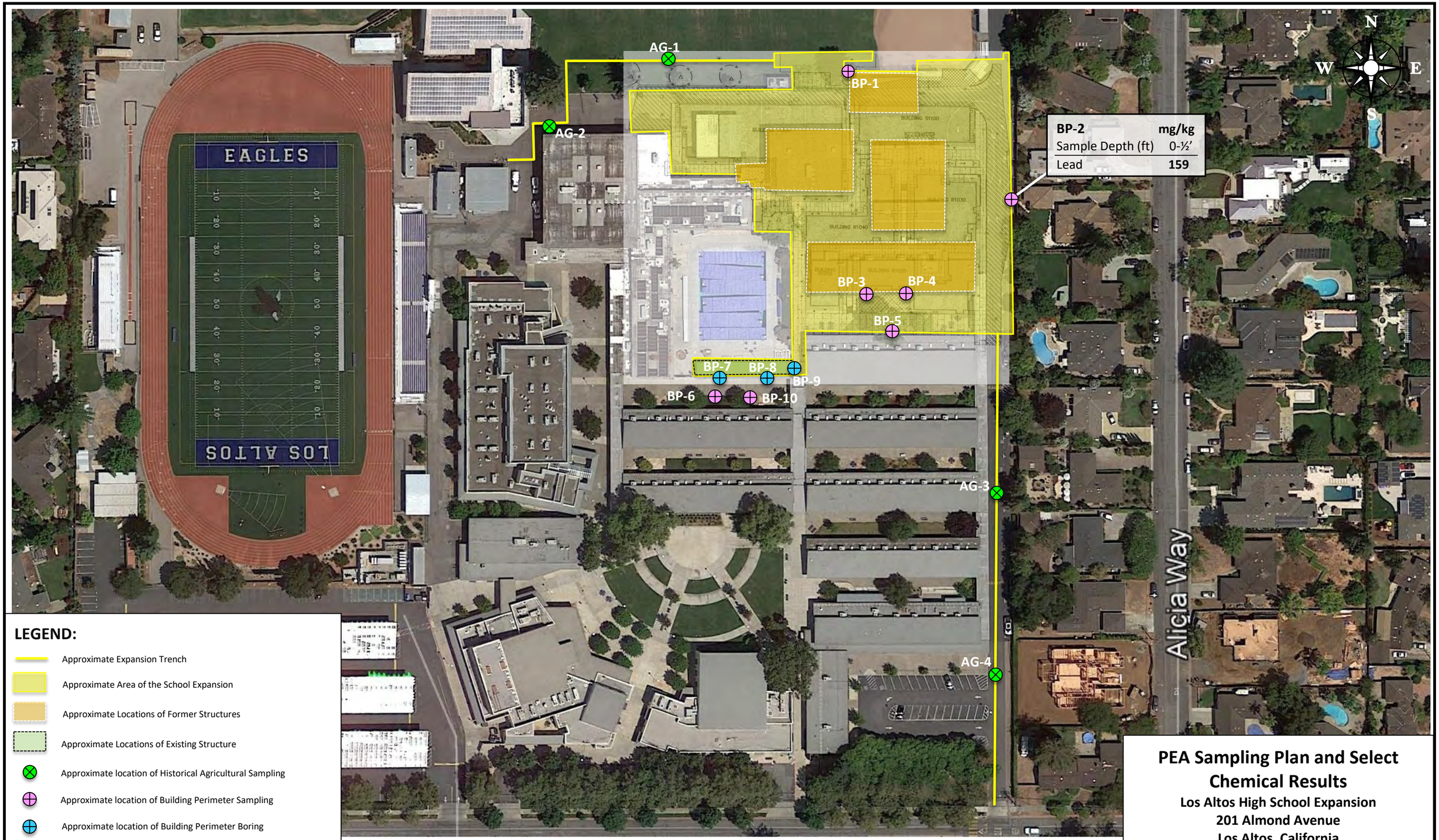
0 30 60

Removal Areas and Confirmation Sampling

Los Altos High School Expansion
201 Almond Avenue
Los Altos, California

FIGURE 5

McCloskey Consultants



LEGEND:

- Approximate Expansion Trench
- Approximate Area of the School Expansion
- Approximate Locations of Former Structures
- Approximate Locations of Existing Structure
- Approximate location of Historical Agricultural Sampling
- Approximate location of Building Perimeter Sampling
- Approximate location of Building Perimeter Boring

Approximate Graphical Scale (Ft.)

0 100 200

Notes :
Soil concentrations in mg/kg – milligrams per kilogram.
BOLD indicates exceedance of regulatory threshold.

PEA Sampling Plan and Select Chemical Results

Los Altos High School Expansion
201 Almond Avenue
Los Altos, California

FIGURE 6

McCloskey Consultants

Appendix A

DTSC PEA Workplan Approval Letter

Department of Toxic Substances Control

Jared Blumenfeld
Secretary for
Environmental Protection

Meredith Williams, Ph.D., Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

May 26, 2020

Mr. Mike Mathiesen
Associate Superintendent of Business Services
Mountain View Los Altos Union High School District
1299 Bryant Ave
Mountain View, California 94040
mike.mathiesen@mvla.net

PRELIMINARY ENVIRONMENTAL ASSESSMENT WORKPLAN – APPROVAL,
MOUNTAIN VIEW-LOS ALTOS UNION HIGH SCHOOL DISTRICT,
LOS ALTOS HIGH SCHOOL EXPANSION, 201 ALMOND AVENUE, LOS ALTOS,
SANTA CLARA COUNTY (PROJECT CODE 204320)

Dear Mr. Mathiesen:

The Department of Toxic Substances Control (DTSC) reviewed the revised *Preliminary Environmental Assessment Workplan* (PEA Workplan – McCloskey Consultants, Inc. [MCI], May 15, 2020) received electronically on May 22, 2020. MCI revised the draft version of the PEA Workplan in response to DTSC comments in a letter dated April 7, 2020 and follow-up correspondence forwarded via email by DTSC on May 7, 2020. The PEA Workplan includes project background information as well as proposed environmental investigation activities.

According to the draft Preliminary Environmental Assessment (PEA) Workplan, the Mountain View Los Altos Union High School District (District) is planning to expand the Los Altos High School, located at 201 Almond Avenue, Los Altos, Santa Clara County, California (Site). The Site includes two (2) of the 30.5 acres within the parcel defined by the Santa Clara County Assessor as Assessor's Parcel Numbers (APN) 170-60-001. The expansion will include the addition of 15 classrooms and will increase the student population by approximately 410 students.

The Site is currently bounded to the north by Jardin Drive followed by residential development; to the east by residential development followed by Alicia Way and residential development; to the south by Almond Avenue followed by residential development; and to the west by residential development, followed by Valencia Drive, then more residential development. The Site includes two trenches; a northern trench which is approximately 370 feet in length and an eastern trench which is approximately 550 feet in length.

According to historical photos, the Site was used for orchards from at least 1939 through at least 1950. The original school buildings and a football field were added in 1954. Additional permanent structures and portable buildings were added across the existing Los Altos High School campus between the 1950s and 2016.

The PEA Workplan includes activities to investigate the Site for potential impacts from the following environmental conditions that may pose a threat to human health or the environment:

- Arsenic, lead and organochlorine pesticides (OCP) in soils from potential historical agricultural pesticide use;
- Lead in soils from the potential weathering of lead-based paint applications on structures built prior to 1993;
- OCP in soils from the potential application of termiticides in the area of existing or former structures built prior to 1989;
- Polychlorinated biphenyls in soil from caulking materials around exterior windows and doorframes installed prior to 1979;
- Naturally occurring asbestos (NOA) in soil from the presence of ultramafic rock outcrops within 9 miles from the Site; and,
- Polyaromatic hydrocarbons and total petroleum hydrocarbons in soil gas from a former 5000-gallon heating oil underground storage tank (UST) near the site.

DTSC's comments have been adequately addressed, and the revised PEA Workplan is hereby approved. If Site conditions differ from those presented in the approved PEA Workplan, additional work may be necessary. In accordance with Education Code section 17210.1(b), the District shall provide written notice to residents in the immediate area, approved in form by DTSC, at least five days in advance of field investigation activities. The intent of this requirement is to provide advance notice of fieldwork such as drilling, sampling, and other environmental data collection activities to anyone who lives or works in the line of sight of the proposed Site. Please notify DTSC a minimum of 48 hours in advance of field work or schedule changes.

The PEA Workplan indicates that the District intends to make the Draft PEA Report available for public review in compliance with Option A of the Education Code section 17213.1(a)(6)(A). Pursuant to Education Code section 17213.1, subdivision (a)(6), at the same time the draft PEA Report is submitted to DTSC for review, the District shall publish a DTSC approved notice in a local newspaper of general circulation and post the notice in a prominent manner at the Site. The notice should state the District's intent of making the draft PEA Report available for public review pursuant Option A. A copy of the notice shall be submitted to DTSC with the draft PEA Report.

If you have any questions regarding the project, please contact me at (916) 255-3744 or via email at Letitia.Shen@dtsc.ca.gov.

Sincerely,

Letitia Shen
Project Manager
Northern California Schools Unit
Site Mitigation and Restoration Program

cc: (via e-mail)

Mr. Elvis Lopez
Business Services-Fiscal Services
Mountain View Los Altos Union High School District
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Mr. José Salcedo, PE, Chief
Northern California Schools Unit
DTSC Sacramento Office
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Appendix B

Previous Phase II Sampling Documentation

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

August 13, 2018

McCloskey Consulting - Danville, CA

Sample Delivery Group:	L1014122
Samples Received:	08/02/2018
Project Number:	
Description:	Los Altos High School
Report To:	Tom McCloskey 420 Sycamore Valley Rd West Danville, CA 94526

Entire Report Reviewed By:

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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SS-1 @ 0-1/2' L1014122-01 Solid

Collected by: Chris Vertin | Collected date/time: 07/30/18 12:23 | Received date/time: 08/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1148132	1	08/06/18 13:28	08/06/18 13:35	JD
Metals (ICP) by Method 6010B	WG1146936	1	08/03/18 11:53	08/07/18 15:29	ST
Pesticides (GC) by Method 8081	WG1147937	1	08/06/18 13:32	08/10/18 01:06	ADF

SS-2 @ 0-1/2' L1014122-02 Solid

Collected by: Chris Vertin | Collected date/time: 07/30/18 12:28 | Received date/time: 08/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1148132	1	08/06/18 13:28	08/06/18 13:35	JD
Metals (ICP) by Method 6010B	WG1146936	1	08/03/18 11:53	08/07/18 15:57	ST
Pesticides (GC) by Method 8081	WG1147937	1	08/06/18 13:32	08/10/18 01:51	TD

SS-3 @ 0-1/2' L1014122-03 Solid

Collected by: Chris Vertin | Collected date/time: 07/30/18 12:42 | Received date/time: 08/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1148132	1	08/06/18 13:28	08/06/18 13:35	JD
Metals (ICP) by Method 6010B	WG1146936	1	08/03/18 11:53	08/07/18 15:59	ST
Pesticides (GC) by Method 8081	WG1147937	1	08/06/18 13:32	08/10/18 02:06	ADF

SS-4 @ 0-1/2' L1014122-04 Solid

Collected by: Chris Vertin | Collected date/time: 07/30/18 12:52 | Received date/time: 08/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1148132	1	08/06/18 13:28	08/06/18 13:35	JD
Metals (ICP) by Method 6010B	WG1146936	1	08/03/18 11:53	08/07/18 16:02	ST
Pesticides (GC) by Method 8081	WG1147937	1	08/06/18 13:32	08/10/18 02:20	TD

SS-5 @ 1/2-1' L1014122-05 Solid

Collected by: Chris Vertin | Collected date/time: 07/30/18 12:04 | Received date/time: 08/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1148132	1	08/06/18 13:28	08/06/18 13:35	JD
Metals (ICP) by Method 6010B	WG1146936	1	08/03/18 11:53	08/07/18 16:05	ST
Pesticides (GC) by Method 8081	WG1147937	1	08/06/18 13:32	08/10/18 02:35	TD

SS-6 @ 1/2-1' L1014122-06 Solid

Collected by: Chris Vertin | Collected date/time: 07/30/18 11:56 | Received date/time: 08/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1148132	1	08/06/18 13:28	08/06/18 13:35	JD
Metals (ICP) by Method 6010B	WG1146936	1	08/03/18 11:53	08/07/18 16:07	ST
Pesticides (GC) by Method 8081	WG1147937	1.01	08/06/18 13:32	08/10/18 02:50	TD

SS-7 @ 1-1 1/2' L1014122-07 Solid

Collected by	Collected date/time	Received date/time
Chris Vertin	07/30/18 11:49	08/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1148132	1	08/06/18 13:28	08/06/18 13:35	JD
Metals (ICP) by Method 6010B	WG1146936	1	08/03/18 11:53	08/07/18 16:10	ST
Pesticides (GC) by Method 8081	WG1147937	1	08/06/18 13:32	08/10/18 03:05	TD

SS-8 @ 1/2-1' L1014122-08 Solid

Collected by	Collected date/time	Received date/time
Chris Vertin	07/30/18 12:14	08/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1148132	1	08/06/18 13:28	08/06/18 13:35	JD
Metals (ICP) by Method 6010B	WG1146936	1	08/03/18 11:53	08/07/18 16:13	ST
Pesticides (GC) by Method 8081	WG1147937	1	08/06/18 13:32	08/10/18 03:20	TD

SS-9 L1014122-09 Solid

Collected by	Collected date/time	Received date/time
Chris Vertin	07/30/18 12:20	08/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1148132	1	08/06/18 13:28	08/06/18 13:35	JD
Metals (ICP) by Method 6010B	WG1146936	1	08/03/18 11:53	08/07/18 16:16	ST
Pesticides (GC) by Method 8081	WG1147937	1	08/06/18 13:32	08/10/18 03:34	TD

SS-10 L1014122-10 Solid

Collected by	Collected date/time	Received date/time
Chris Vertin	07/30/18 13:05	08/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1148132	1	08/06/18 13:28	08/06/18 13:35	JD
Metals (ICP) by Method 6010B	WG1146936	1	08/03/18 11:53	08/07/18 16:18	ST
Pesticides (GC) by Method 8081	WG1147937	1	08/06/18 13:32	08/10/18 03:49	TD

SS-11 @ 1/2-1' L1014122-11 Solid

Collected by	Collected date/time	Received date/time
Chris Vertin	07/30/18 11:42	08/02/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1148165	1	08/06/18 13:04	08/06/18 13:12	JD
Metals (ICP) by Method 6010B	WG1146936	1	08/03/18 11:53	08/07/18 15:12	ST
Pesticides (GC) by Method 8081	WG1147937	1	08/06/18 13:32	08/10/18 04:04	TD

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Metals (ICP) by Method 6010B

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
SS-1 @ 0-1/2'	L1014122-01	Arsenic	9.12		0.772	2.38	1	08/07/2018 15:29	WG1146936
SS-1 @ 0-1/2'	L1014122-01	Lead	53.7	J3	0.226	0.594	1	08/07/2018 15:29	WG1146936
SS-2 @ 0-1/2'	L1014122-02	Arsenic	5.73		0.739	2.27	1	08/07/2018 15:57	WG1146936
SS-2 @ 0-1/2'	L1014122-02	Lead	15.8		0.216	0.568	1	08/07/2018 15:57	WG1146936
SS-3 @ 0-1/2'	L1014122-03	Arsenic	6.93		0.727	2.24	1	08/07/2018 15:59	WG1146936
SS-3 @ 0-1/2'	L1014122-03	Lead	602		0.213	0.559	1	08/07/2018 15:59	WG1146936
SS-4 @ 0-1/2'	L1014122-04	Arsenic	3.83		0.775	2.39	1	08/07/2018 16:02	WG1146936
SS-4 @ 0-1/2'	L1014122-04	Lead	11.4		0.227	0.596	1	08/07/2018 16:02	WG1146936
SS-5 @ 1/2-1'	L1014122-05	Arsenic	6.62		0.711	2.19	1	08/07/2018 16:05	WG1146936
SS-6 @ 1/2-1'	L1014122-06	Arsenic	0.971	J	0.720	2.22	1	08/07/2018 16:07	WG1146936
SS-7 @ 1-1 1/2'	L1014122-07	Arsenic	1.91	J	0.736	2.27	1	08/07/2018 16:10	WG1146936
SS-8 @ 1/2-1'	L1014122-08	Arsenic	9.70		0.736	2.26	1	08/07/2018 16:13	WG1146936
SS-9	L1014122-09	Arsenic	2.55		0.722	2.22	1	08/07/2018 16:16	WG1146936
SS-9	L1014122-09	Lead	5.21		0.211	0.556	1	08/07/2018 16:16	WG1146936
SS-10	L1014122-10	Arsenic	2.49		0.717	2.21	1	08/07/2018 16:18	WG1146936
SS-10	L1014122-10	Lead	1.26		0.210	0.551	1	08/07/2018 16:18	WG1146936
SS-11 @ 1/2-1'	L1014122-11	Arsenic	2.42		0.732	2.25	1	08/07/2018 15:12	WG1146936
SS-11 @ 1/2-1'	L1014122-11	Lead	2.92		0.214	0.563	1	08/07/2018 15:12	WG1146936

Pesticides (GC) by Method 8081

Client ID	Lab Sample ID	Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
SS-1 @ 0-1/2'	L1014122-01	Gamma BHC	0.000826	J J3 J6	0.000291	0.0238	1	08/10/2018 01:06	WG1147937
SS-1 @ 0-1/2'	L1014122-01	4,4-DDD	0.00204	J J3	0.000195	0.0238	1	08/10/2018 01:06	WG1147937
SS-1 @ 0-1/2'	L1014122-01	4,4-DDE	0.00624	J J3	0.000196	0.0238	1	08/10/2018 01:06	WG1147937
SS-1 @ 0-1/2'	L1014122-01	4,4-DDT	0.0227	J J3	0.000316	0.0238	1	08/10/2018 01:06	WG1147937
SS-1 @ 0-1/2'	L1014122-01	Dieldrin	0.0548	J3 J6	0.000106	0.00238	1	08/10/2018 01:06	WG1147937
SS-1 @ 0-1/2'	L1014122-01	Chlordane	0.153	J	0.0463	0.238	1	08/10/2018 01:06	WG1147937
SS-2 @ 0-1/2'	L1014122-02	4,4-DDE	0.185		0.000188	0.0227	1	08/10/2018 01:51	WG1147937
SS-2 @ 0-1/2'	L1014122-02	4,4-DDT	0.0751		0.000302	0.0227	1	08/10/2018 01:51	WG1147937
SS-2 @ 0-1/2'	L1014122-02	Dieldrin	0.0189		0.000101	0.00227	1	08/10/2018 01:51	WG1147937
SS-3 @ 0-1/2'	L1014122-03	4,4-DDD	0.00446	J	0.000183	0.0224	1	08/10/2018 02:06	WG1147937
SS-3 @ 0-1/2'	L1014122-03	4,4-DDE	0.0224	J	0.000185	0.0224	1	08/10/2018 02:06	WG1147937
SS-3 @ 0-1/2'	L1014122-03	4,4-DDT	0.0389	P	0.000298	0.0224	1	08/10/2018 02:06	WG1147937
SS-3 @ 0-1/2'	L1014122-03	Dieldrin	0.0610	P	0.0000996	0.00224	1	08/10/2018 02:06	WG1147937
SS-3 @ 0-1/2'	L1014122-03	Heptachlor	0.00724	J	0.000113	0.0224	1	08/10/2018 02:06	WG1147937
SS-3 @ 0-1/2'	L1014122-03	Chlordane	0.160	J	0.0436	0.224	1	08/10/2018 02:06	WG1147937
SS-4 @ 0-1/2'	L1014122-04	4,4-DDE	0.00601	J	0.000197	0.0239	1	08/10/2018 02:20	WG1147937
SS-4 @ 0-1/2'	L1014122-04	Dieldrin	0.000699	J P	0.000106	0.00239	1	08/10/2018 02:20	WG1147937
SS-5 @ 1/2-1'	L1014122-05	4,4-DDD	0.000361	J P	0.000179	0.0219	1	08/10/2018 02:35	WG1147937
SS-5 @ 1/2-1'	L1014122-05	4,4-DDE	0.0283		0.000181	0.0219	1	08/10/2018 02:35	WG1147937
SS-5 @ 1/2-1'	L1014122-05	4,4-DDT	0.00490	J	0.000291	0.0219	1	08/10/2018 02:35	WG1147937
SS-5 @ 1/2-1'	L1014122-05	Dieldrin	0.0247		0.0000974	0.00219	1	08/10/2018 02:35	WG1147937
SS-8 @ 1/2-1'	L1014122-08	4,4-DDD	0.00198	J P	0.000186	0.0226	1	08/10/2018 03:20	WG1147937
SS-8 @ 1/2-1'	L1014122-08	4,4-DDE	0.135		0.000187	0.0226	1	08/10/2018 03:20	WG1147937
SS-8 @ 1/2-1'	L1014122-08	4,4-DDT	0.0139	J	0.000301	0.0226	1	08/10/2018 03:20	WG1147937
SS-9	L1014122-09	4,4-DDD	0.000253	J	0.000182	0.0222	1	08/10/2018 03:34	WG1147937
SS-9	L1014122-09	4,4-DDE	0.000977	J	0.000183	0.0222	1	08/10/2018 03:34	WG1147937
SS-9	L1014122-09	4,4-DDT	0.00141	J P	0.000296	0.0222	1	08/10/2018 03:34	WG1147937
SS-11 @ 1/2-1'	L1014122-11	4,4-DDE	0.000205	J	0.000186	0.0225	1	08/10/2018 04:04	WG1147937

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.2		1	08/06/2018 13:35	WG1148132

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	9.12		0.772	2.38	1	08/07/2018 15:29	WG1146936
Lead	53.7	J3	0.226	0.594	1	08/07/2018 15:29	WG1146936

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U	J3	0.000277	0.0238	1	08/10/2018 01:06	WG1147937
Alpha BHC	U	J3 J6	0.000229	0.0238	1	08/10/2018 01:06	WG1147937
Beta BHC	U	J3 J6	0.000360	0.0238	1	08/10/2018 01:06	WG1147937
Delta BHC	U	J3	0.000179	0.0238	1	08/10/2018 01:06	WG1147937
Gamma BHC	0.000826	J J3 J6	0.000291	0.0238	1	08/10/2018 01:06	WG1147937
4,4-DDD	0.00204	J J3	0.000195	0.0238	1	08/10/2018 01:06	WG1147937
4,4-DDE	0.00624	J J3	0.000196	0.0238	1	08/10/2018 01:06	WG1147937
4,4-DDT	0.0227	J J3	0.000316	0.0238	1	08/10/2018 01:06	WG1147937
Dieldrin	0.0548	J3 J6	0.000106	0.00238	1	08/10/2018 01:06	WG1147937
Endosulfan I	U	J3	0.000254	0.0238	1	08/10/2018 01:06	WG1147937
Endosulfan II	U	J3	0.000273	0.0238	1	08/10/2018 01:06	WG1147937
Endosulfan sulfate	U	J3	0.000202	0.0238	1	08/10/2018 01:06	WG1147937
Endrin	U	J3	0.000260	0.0238	1	08/10/2018 01:06	WG1147937
Endrin aldehyde	U	J3	0.000288	0.0238	1	08/10/2018 01:06	WG1147937
Endrin ketone	U	J3	0.000189	0.0238	1	08/10/2018 01:06	WG1147937
Heptachlor	U	J3	0.000120	0.0238	1	08/10/2018 01:06	WG1147937
Heptachlor epoxide	U	J3	0.000449	0.0238	1	08/10/2018 01:06	WG1147937
Hexachlorobenzene	U	J3	0.000266	0.0238	1	08/10/2018 01:06	WG1147937
Methoxychlor	U	J3	0.000315	0.0238	1	08/10/2018 01:06	WG1147937
Chlordane	0.153	J	0.0463	0.238	1	08/10/2018 01:06	WG1147937
Toxaphene	U		0.0428	0.475	1	08/10/2018 01:06	WG1147937
(S) Decachlorobiphenyl	*61.7*			*10.0-148*		*08/10/2018 01:06*	WG1147937
(S) Tetrachloro-m-xylene	*56.2*			*21.0-146*		*08/10/2018 01:06*	WG1147937

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.0		1	08/06/2018 13:35	WG1148132

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	5.73		0.739	2.27	1	08/07/2018 15:57	WG1146936
Lead	15.8		0.216	0.568	1	08/07/2018 15:57	WG1146936

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000265	0.0227	1	08/10/2018 01:51	WG1147937
Alpha BHC	U		0.000219	0.0227	1	08/10/2018 01:51	WG1147937
Beta BHC	U		0.000344	0.0227	1	08/10/2018 01:51	WG1147937
Delta BHC	U		0.000172	0.0227	1	08/10/2018 01:51	WG1147937
Gamma BHC	U		0.000279	0.0227	1	08/10/2018 01:51	WG1147937
4,4-DDD	U		0.000186	0.0227	1	08/10/2018 01:51	WG1147937
4,4-DDE	0.185		0.000188	0.0227	1	08/10/2018 01:51	WG1147937
4,4-DDT	0.0751		0.000302	0.0227	1	08/10/2018 01:51	WG1147937
Dieldrin	0.0189		0.000101	0.00227	1	08/10/2018 01:51	WG1147937
Endosulfan I	U		0.000243	0.0227	1	08/10/2018 01:51	WG1147937
Endosulfan II	U		0.000261	0.0227	1	08/10/2018 01:51	WG1147937
Endosulfan sulfate	U		0.000193	0.0227	1	08/10/2018 01:51	WG1147937
Endrin	U		0.000249	0.0227	1	08/10/2018 01:51	WG1147937
Endrin aldehyde	U		0.000275	0.0227	1	08/10/2018 01:51	WG1147937
Endrin ketone	U		0.000181	0.0227	1	08/10/2018 01:51	WG1147937
Heptachlor	U		0.000115	0.0227	1	08/10/2018 01:51	WG1147937
Heptachlor epoxide	U		0.000430	0.0227	1	08/10/2018 01:51	WG1147937
Hexachlorobenzene	U		0.000255	0.0227	1	08/10/2018 01:51	WG1147937
Methoxychlor	U		0.000301	0.0227	1	08/10/2018 01:51	WG1147937
Chlordane	U		0.0443	0.227	1	08/10/2018 01:51	WG1147937
Toxaphene	U		0.0409	0.455	1	08/10/2018 01:51	WG1147937
(S) Decachlorobiphenyl	*90.7*			*10.0-148*		*08/10/2018 01:51*	WG1147937
(S) Tetrachloro-m-xylene	*80.4*			*21.0-146*		*08/10/2018 01:51*	WG1147937

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.4		1	08/06/2018 13:35	WG1148132

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	6.93		0.727	2.24	1	08/07/2018 15:59	WG1146936
Lead	602		0.213	0.559	1	08/07/2018 15:59	WG1146936

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000261	0.0224	1	08/10/2018 02:06	WG1147937
Alpha BHC	U		0.000216	0.0224	1	08/10/2018 02:06	WG1147937
Beta BHC	U		0.000339	0.0224	1	08/10/2018 02:06	WG1147937
Delta BHC	U		0.000169	0.0224	1	08/10/2018 02:06	WG1147937
Gamma BHC	U		0.000274	0.0224	1	08/10/2018 02:06	WG1147937
4,4-DDD	0.00446	J	0.000183	0.0224	1	08/10/2018 02:06	WG1147937
4,4-DDE	0.0224	J	0.000185	0.0224	1	08/10/2018 02:06	WG1147937
4,4-DDT	0.0389	P	0.000298	0.0224	1	08/10/2018 02:06	WG1147937
Dieldrin	0.0610	P	0.0000996	0.00224	1	08/10/2018 02:06	WG1147937
Endosulfan I	U		0.000239	0.0224	1	08/10/2018 02:06	WG1147937
Endosulfan II	U		0.000257	0.0224	1	08/10/2018 02:06	WG1147937
Endosulfan sulfate	U		0.000190	0.0224	1	08/10/2018 02:06	WG1147937
Endrin	U		0.000245	0.0224	1	08/10/2018 02:06	WG1147937
Endrin aldehyde	U		0.000271	0.0224	1	08/10/2018 02:06	WG1147937
Endrin ketone	U		0.000178	0.0224	1	08/10/2018 02:06	WG1147937
Heptachlor	0.00724	J	0.000113	0.0224	1	08/10/2018 02:06	WG1147937
Heptachlor epoxide	U		0.000423	0.0224	1	08/10/2018 02:06	WG1147937
Hexachlorobenzene	U		0.000251	0.0224	1	08/10/2018 02:06	WG1147937
Methoxychlor	U		0.000296	0.0224	1	08/10/2018 02:06	WG1147937
Chlordane	0.160	J	0.0436	0.224	1	08/10/2018 02:06	WG1147937
Toxaphene	U		0.0403	0.447	1	08/10/2018 02:06	WG1147937
(S) Decachlorobiphenyl	*132*			*10.0-148*		*08/10/2018 02:06*	WG1147937
(S) Tetrachloro-m-xylene	*58.6*			*21.0-146*		*08/10/2018 02:06*	WG1147937

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.8		1	08/06/2018 13:35	WG1148132

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.83		0.775	2.39	1	08/07/2018 16:02	WG1146936
Lead	11.4		0.227	0.596	1	08/07/2018 16:02	WG1146936

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000278	0.0239	1	08/10/2018 02:20	WG1147937
Alpha BHC	U		0.000230	0.0239	1	08/10/2018 02:20	WG1147937
Beta BHC	U		0.000361	0.0239	1	08/10/2018 02:20	WG1147937
Delta BHC	U		0.000180	0.0239	1	08/10/2018 02:20	WG1147937
Gamma BHC	U		0.000292	0.0239	1	08/10/2018 02:20	WG1147937
4,4-DDD	U		0.000196	0.0239	1	08/10/2018 02:20	WG1147937
4,4-DDE	0.00601	J	0.000197	0.0239	1	08/10/2018 02:20	WG1147937
4,4-DDT	U		0.000317	0.0239	1	08/10/2018 02:20	WG1147937
Dieldrin	0.000699	J P	0.000106	0.00239	1	08/10/2018 02:20	WG1147937
Endosulfan I	U		0.000255	0.0239	1	08/10/2018 02:20	WG1147937
Endosulfan II	U		0.000274	0.0239	1	08/10/2018 02:20	WG1147937
Endosulfan sulfate	U		0.000203	0.0239	1	08/10/2018 02:20	WG1147937
Endrin	U		0.000261	0.0239	1	08/10/2018 02:20	WG1147937
Endrin aldehyde	U		0.000289	0.0239	1	08/10/2018 02:20	WG1147937
Endrin ketone	U		0.000190	0.0239	1	08/10/2018 02:20	WG1147937
Heptachlor	U		0.000120	0.0239	1	08/10/2018 02:20	WG1147937
Heptachlor epoxide	U		0.000451	0.0239	1	08/10/2018 02:20	WG1147937
Hexachlorobenzene	U		0.000267	0.0239	1	08/10/2018 02:20	WG1147937
Methoxychlor	U		0.000316	0.0239	1	08/10/2018 02:20	WG1147937
Chlordane	U		0.0465	0.239	1	08/10/2018 02:20	WG1147937
Toxaphene	U		0.0429	0.477	1	08/10/2018 02:20	WG1147937
(S) Decachlorobiphenyl	*74.5*			*10.0-148*		*08/10/2018 02:20*	WG1147937
(S) Tetrachloro-m-xylene	*71.3*			*21.0-146*		*08/10/2018 02:20*	WG1147937

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	08/06/2018 13:35	WG1148132

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	6.62		0.711	2.19	1	08/07/2018 16:05	WG1146936

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000255	0.0219	1	08/10/2018 02:35	WG1147937
Alpha BHC	U		0.000211	0.0219	1	08/10/2018 02:35	WG1147937
Beta BHC	U		0.000331	0.0219	1	08/10/2018 02:35	WG1147937
Delta BHC	U		0.000165	0.0219	1	08/10/2018 02:35	WG1147937
Gamma BHC	U		0.000268	0.0219	1	08/10/2018 02:35	WG1147937
4,4-DDD	0.000361	J P	0.000179	0.0219	1	08/10/2018 02:35	WG1147937
4,4-DDE	0.0283		0.000181	0.0219	1	08/10/2018 02:35	WG1147937
4,4-DDT	0.00490	J	0.000291	0.0219	1	08/10/2018 02:35	WG1147937
Dieldrin	0.0247		0.0000974	0.00219	1	08/10/2018 02:35	WG1147937
Endosulfan I	U		0.000234	0.0219	1	08/10/2018 02:35	WG1147937
Endosulfan II	U		0.000252	0.0219	1	08/10/2018 02:35	WG1147937
Endosulfan sulfate	U		0.000186	0.0219	1	08/10/2018 02:35	WG1147937
Endrin	U		0.000240	0.0219	1	08/10/2018 02:35	WG1147937
Endrin aldehyde	U		0.000265	0.0219	1	08/10/2018 02:35	WG1147937
Endrin ketone	U		0.000174	0.0219	1	08/10/2018 02:35	WG1147937
Heptachlor	U		0.000110	0.0219	1	08/10/2018 02:35	WG1147937
Heptachlor epoxide	U		0.000414	0.0219	1	08/10/2018 02:35	WG1147937
Hexachlorobenzene	U		0.000245	0.0219	1	08/10/2018 02:35	WG1147937
Methoxychlor	U		0.000290	0.0219	1	08/10/2018 02:35	WG1147937
Chlordane	U		0.0427	0.219	1	08/10/2018 02:35	WG1147937
Toxaphene	U		0.0394	0.438	1	08/10/2018 02:35	WG1147937
(S) Decachlorobiphenyl	*99.5*			*10.0-148*		*08/10/2018 02:35*	WG1147937
(S) Tetrachloro-m-xylene	*75.1*			*21.0-146*		*08/10/2018 02:35*	WG1147937

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.3		1	08/06/2018 13:35	WG1148132

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	0.971	J	0.720	2.22	1	08/07/2018 16:07	WG1146936

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000260	0.0224	1.01	08/10/2018 02:50	WG1147937
Alpha BHC	U		0.000216	0.0224	1.01	08/10/2018 02:50	WG1147937
Beta BHC	U		0.000339	0.0224	1.01	08/10/2018 02:50	WG1147937
Delta BHC	U		0.000169	0.0224	1.01	08/10/2018 02:50	WG1147937
Gamma BHC	U		0.000274	0.0224	1.01	08/10/2018 02:50	WG1147937
4,4-DDD	U		0.000184	0.0224	1.01	08/10/2018 02:50	WG1147937
4,4-DDE	U		0.000185	0.0224	1.01	08/10/2018 02:50	WG1147937
4,4-DDT	U		0.000298	0.0224	1.01	08/10/2018 02:50	WG1147937
Dieldrin	U		0.0000996	0.00224	1.01	08/10/2018 02:50	WG1147937
Endosulfan I	U		0.000239	0.0224	1.01	08/10/2018 02:50	WG1147937
Endosulfan II	U		0.000257	0.0224	1.01	08/10/2018 02:50	WG1147937
Endosulfan sulfate	U		0.000191	0.0224	1.01	08/10/2018 02:50	WG1147937
Endrin	U		0.000245	0.0224	1.01	08/10/2018 02:50	WG1147937
Endrin aldehyde	U		0.000270	0.0224	1.01	08/10/2018 02:50	WG1147937
Endrin ketone	U		0.000178	0.0224	1.01	08/10/2018 02:50	WG1147937
Heptachlor	U		0.000113	0.0224	1.01	08/10/2018 02:50	WG1147937
Heptachlor epoxide	U		0.000423	0.0224	1.01	08/10/2018 02:50	WG1147937
Hexachlorobenzene	U		0.000250	0.0224	1.01	08/10/2018 02:50	WG1147937
Methoxychlor	U		0.000297	0.0224	1.01	08/10/2018 02:50	WG1147937
Chlordane	U		0.0436	0.224	1.01	08/10/2018 02:50	WG1147937
Toxaphene	U		0.0403	0.448	1.01	08/10/2018 02:50	WG1147937
(S) Decachlorobiphenyl	*79.5*			*10.0-148*		*08/10/2018 02:50*	WG1147937
(S) Tetrachloro-m-xylene	*75.9*			*21.0-146*		*08/10/2018 02:50*	WG1147937

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	08/06/2018 13:35	WG1148132

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.91	J	0.736	2.27	1	08/07/2018 16:10	WG1146936

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000264	0.0227	1	08/10/2018 03:05	WG1147937
Alpha BHC	U		0.000219	0.0227	1	08/10/2018 03:05	WG1147937
Beta BHC	U		0.000343	0.0227	1	08/10/2018 03:05	WG1147937
Delta BHC	U		0.000171	0.0227	1	08/10/2018 03:05	WG1147937
Gamma BHC	U		0.000278	0.0227	1	08/10/2018 03:05	WG1147937
4,4-DDD	U		0.000186	0.0227	1	08/10/2018 03:05	WG1147937
4,4-DDE	U		0.000187	0.0227	1	08/10/2018 03:05	WG1147937
4,4-DDT	U		0.000301	0.0227	1	08/10/2018 03:05	WG1147937
Dieldrin	U		0.000101	0.00227	1	08/10/2018 03:05	WG1147937
Endosulfan I	U		0.000242	0.0227	1	08/10/2018 03:05	WG1147937
Endosulfan II	U		0.000261	0.0227	1	08/10/2018 03:05	WG1147937
Endosulfan sulfate	U		0.000193	0.0227	1	08/10/2018 03:05	WG1147937
Endrin	U		0.000248	0.0227	1	08/10/2018 03:05	WG1147937
Endrin aldehyde	U		0.000274	0.0227	1	08/10/2018 03:05	WG1147937
Endrin ketone	U		0.000180	0.0227	1	08/10/2018 03:05	WG1147937
Heptachlor	U		0.000114	0.0227	1	08/10/2018 03:05	WG1147937
Heptachlor epoxide	U		0.000428	0.0227	1	08/10/2018 03:05	WG1147937
Hexachlorobenzene	U		0.000254	0.0227	1	08/10/2018 03:05	WG1147937
Methoxychlor	U		0.000300	0.0227	1	08/10/2018 03:05	WG1147937
Chlordane	U		0.0442	0.227	1	08/10/2018 03:05	WG1147937
Toxaphene	U		0.0408	0.453	1	08/10/2018 03:05	WG1147937
(S) Decachlorobiphenyl	*80.2*			*10.0-148*		*08/10/2018 03:05*	WG1147937
(S) Tetrachloro-m-xylene	*72.1*			*21.0-146*		*08/10/2018 03:05*	WG1147937

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	08/06/2018 13:35	WG1148132

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	9.70		0.736	2.26	1	08/07/2018 16:13	WG1146936

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000264	0.0226	1	08/10/2018 03:20	WG1147937
Alpha BHC	U		0.000219	0.0226	1	08/10/2018 03:20	WG1147937
Beta BHC	U		0.000343	0.0226	1	08/10/2018 03:20	WG1147937
Delta BHC	U		0.000171	0.0226	1	08/10/2018 03:20	WG1147937
Gamma BHC	U		0.000277	0.0226	1	08/10/2018 03:20	WG1147937
4,4-DDD	0.00198	J P	0.000186	0.0226	1	08/10/2018 03:20	WG1147937
4,4-DDE	0.135		0.000187	0.0226	1	08/10/2018 03:20	WG1147937
4,4-DDT	0.0139	J	0.000301	0.0226	1	08/10/2018 03:20	WG1147937
Dieldrin	U		0.000101	0.00226	1	08/10/2018 03:20	WG1147937
Endosulfan I	U		0.000242	0.0226	1	08/10/2018 03:20	WG1147937
Endosulfan II	U		0.000260	0.0226	1	08/10/2018 03:20	WG1147937
Endosulfan sulfate	U		0.000193	0.0226	1	08/10/2018 03:20	WG1147937
Endrin	U		0.000248	0.0226	1	08/10/2018 03:20	WG1147937
Endrin aldehyde	U		0.000274	0.0226	1	08/10/2018 03:20	WG1147937
Endrin ketone	U		0.000180	0.0226	1	08/10/2018 03:20	WG1147937
Heptachlor	U		0.000114	0.0226	1	08/10/2018 03:20	WG1147937
Heptachlor epoxide	U		0.000428	0.0226	1	08/10/2018 03:20	WG1147937
Hexachlorobenzene	U		0.000254	0.0226	1	08/10/2018 03:20	WG1147937
Methoxychlor	U		0.000300	0.0226	1	08/10/2018 03:20	WG1147937
Chlordane	U		0.0442	0.226	1	08/10/2018 03:20	WG1147937
Toxaphene	U		0.0408	0.453	1	08/10/2018 03:20	WG1147937
(S) Decachlorobiphenyl	*88.4*			*10.0-148*		*08/10/2018 03:20*	WG1147937
(S) Tetrachloro-m-xylene	*81.4*			*21.0-146*		*08/10/2018 03:20*	WG1147937

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.0		1	08/06/2018 13:35	WG1148132

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.55		0.722	2.22	1	08/07/2018 16:16	WG1146936
Lead	5.21		0.211	0.556	1	08/07/2018 16:16	WG1146936

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000259	0.0222	1	08/10/2018 03:34	WG1147937
Alpha BHC	U		0.000215	0.0222	1	08/10/2018 03:34	WG1147937
Beta BHC	U		0.000337	0.0222	1	08/10/2018 03:34	WG1147937
Delta BHC	U		0.000168	0.0222	1	08/10/2018 03:34	WG1147937
Gamma BHC	U		0.000272	0.0222	1	08/10/2018 03:34	WG1147937
4,4-DDD	0.000253	J	0.000182	0.0222	1	08/10/2018 03:34	WG1147937
4,4-DDE	0.000977	J	0.000183	0.0222	1	08/10/2018 03:34	WG1147937
4,4-DDT	0.00141	J P	0.000296	0.0222	1	08/10/2018 03:34	WG1147937
Dieldrin	U		0.0000989	0.00222	1	08/10/2018 03:34	WG1147937
Endosulfan I	U		0.000238	0.0222	1	08/10/2018 03:34	WG1147937
Endosulfan II	U		0.000256	0.0222	1	08/10/2018 03:34	WG1147937
Endosulfan sulfate	U		0.000189	0.0222	1	08/10/2018 03:34	WG1147937
Endrin	U		0.000243	0.0222	1	08/10/2018 03:34	WG1147937
Endrin aldehyde	U		0.000269	0.0222	1	08/10/2018 03:34	WG1147937
Endrin ketone	U		0.000177	0.0222	1	08/10/2018 03:34	WG1147937
Heptachlor	U		0.000112	0.0222	1	08/10/2018 03:34	WG1147937
Heptachlor epoxide	U		0.000420	0.0222	1	08/10/2018 03:34	WG1147937
Hexachlorobenzene	U		0.000249	0.0222	1	08/10/2018 03:34	WG1147937
Methoxychlor	U		0.000295	0.0222	1	08/10/2018 03:34	WG1147937
Chlordane	U		0.0433	0.222	1	08/10/2018 03:34	WG1147937
Toxaphene	U		0.0400	0.445	1	08/10/2018 03:34	WG1147937
(S) Decachlorobiphenyl	*85.3*			*10.0-148*		*08/10/2018 03:34*	WG1147937
(S) Tetrachloro-m-xylene	*78.4*			*21.0-146*		*08/10/2018 03:34*	WG1147937

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.7		1	08/06/2018 13:35	WG1148132

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.49		0.717	2.21	1	08/07/2018 16:18	WG1146936
Lead	1.26		0.210	0.551	1	08/07/2018 16:18	WG1146936

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000257	0.0221	1	08/10/2018 03:49	WG1147937
Alpha BHC	U		0.000213	0.0221	1	08/10/2018 03:49	WG1147937
Beta BHC	U		0.000334	0.0221	1	08/10/2018 03:49	WG1147937
Delta BHC	U		0.000167	0.0221	1	08/10/2018 03:49	WG1147937
Gamma BHC	U		0.000270	0.0221	1	08/10/2018 03:49	WG1147937
4,4-DDD	U		0.000181	0.0221	1	08/10/2018 03:49	WG1147937
4,4-DDE	U		0.000182	0.0221	1	08/10/2018 03:49	WG1147937
4,4-DDT	U		0.000293	0.0221	1	08/10/2018 03:49	WG1147937
Dieldrin	U		0.0000981	0.00221	1	08/10/2018 03:49	WG1147937
Endosulfan I	U		0.000236	0.0221	1	08/10/2018 03:49	WG1147937
Endosulfan II	U		0.000254	0.0221	1	08/10/2018 03:49	WG1147937
Endosulfan sulfate	U		0.000187	0.0221	1	08/10/2018 03:49	WG1147937
Endrin	U		0.000241	0.0221	1	08/10/2018 03:49	WG1147937
Endrin aldehyde	U		0.000267	0.0221	1	08/10/2018 03:49	WG1147937
Endrin ketone	U		0.000175	0.0221	1	08/10/2018 03:49	WG1147937
Heptachlor	U		0.000111	0.0221	1	08/10/2018 03:49	WG1147937
Heptachlor epoxide	U		0.000417	0.0221	1	08/10/2018 03:49	WG1147937
Hexachlorobenzene	U		0.000247	0.0221	1	08/10/2018 03:49	WG1147937
Methoxychlor	U		0.000292	0.0221	1	08/10/2018 03:49	WG1147937
Chlordane	U		0.0430	0.221	1	08/10/2018 03:49	WG1147937
Toxaphene	U		0.0397	0.441	1	08/10/2018 03:49	WG1147937
(S) Decachlorobiphenyl	*87.5*			*10.0-148*		*08/10/2018 03:49*	WG1147937
(S) Tetrachloro-m-xylene	*83.2*			*21.0-146*		*08/10/2018 03:49*	WG1147937

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.7		1	08/06/2018 13:12	WG1148165

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.42		0.732	2.25	1	08/07/2018 15:12	WG1146936
Lead	2.92		0.214	0.563	1	08/07/2018 15:12	WG1146936

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.000263	0.0225	1	08/10/2018 04:04	WG1147937
Alpha BHC	U		0.000217	0.0225	1	08/10/2018 04:04	WG1147937
Beta BHC	U		0.000341	0.0225	1	08/10/2018 04:04	WG1147937
Delta BHC	U		0.000170	0.0225	1	08/10/2018 04:04	WG1147937
Gamma BHC	U		0.000276	0.0225	1	08/10/2018 04:04	WG1147937
4,4-DDD	U		0.000185	0.0225	1	08/10/2018 04:04	WG1147937
4,4-DDE	0.000205	J	0.000186	0.0225	1	08/10/2018 04:04	WG1147937
4,4-DDT	U		0.000300	0.0225	1	08/10/2018 04:04	WG1147937
Dieldrin	U		0.000100	0.00225	1	08/10/2018 04:04	WG1147937
Endosulfan I	U		0.000241	0.0225	1	08/10/2018 04:04	WG1147937
Endosulfan II	U		0.000259	0.0225	1	08/10/2018 04:04	WG1147937
Endosulfan sulfate	U		0.000192	0.0225	1	08/10/2018 04:04	WG1147937
Endrin	U		0.000247	0.0225	1	08/10/2018 04:04	WG1147937
Endrin aldehyde	U		0.000273	0.0225	1	08/10/2018 04:04	WG1147937
Endrin ketone	U		0.000179	0.0225	1	08/10/2018 04:04	WG1147937
Heptachlor	U		0.000114	0.0225	1	08/10/2018 04:04	WG1147937
Heptachlor epoxide	U		0.000426	0.0225	1	08/10/2018 04:04	WG1147937
Hexachlorobenzene	U		0.000252	0.0225	1	08/10/2018 04:04	WG1147937
Methoxychlor	U		0.000299	0.0225	1	08/10/2018 04:04	WG1147937
Chlordane	U		0.0439	0.225	1	08/10/2018 04:04	WG1147937
Toxaphene	U		0.0406	0.451	1	08/10/2018 04:04	WG1147937
(S) Decachlorobiphenyl	*83.9*			*10.0-148*		*08/10/2018 04:04*	WG1147937
(S) Tetrachloro-m-xylene	*80.1*			*21.0-146*		*08/10/2018 04:04*	WG1147937

Method Blank (MB)

(MB) R3331415-1 08/06/18 13:35

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1014122-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1014122-01 08/06/18 13:35 • (DUP) R3331415-3 08/06/18 13:35

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	84.2	85.8	1	1.91		10

Laboratory Control Sample (LCS)

(LCS) R3331415-2 08/06/18 13:35

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3331409-1 08/06/18 13:12

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1014963-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1014963-01 08/06/18 13:12 • (DUP) R3331409-3 08/06/18 13:12

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	86.0	85.5	1	0.617		10

Laboratory Control Sample (LCS)

(LCS) R3331409-2 08/06/18 13:12

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3331727-1 08/07/18 15:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.650	2.00
Lead	U		0.190	0.500

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3331727-8 08/07/18 18:38 • (LCSD) R3331727-9 08/07/18 18:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	100	98.9	95.7	98.9	95.7	80.0-120			3.27	20
Lead	100	99.4	96.6	99.4	96.6	80.0-120			2.83	20

L1014122-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1014122-01 08/07/18 15:29 • (MS) R3331727-6 08/07/18 15:37 • (MSD) R3331727-7 08/07/18 15:40

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	119	9.12	123	123	96.2	96.2	1	75.0-125			0.0335	20
Lead	119	53.7	201	154	124	84.0	1	75.0-125		J3	26.6	20

Method Blank (MB)

(MB) R3331709-3 08/07/18 17:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.000233	0.0200
Alpha BHC	U		0.000193	0.0200
Beta BHC	U		0.000303	0.0200
Delta BHC	U		0.000151	0.0200
Gamma BHC	U		0.000245	0.0200
4,4-DDD	U		0.000164	0.0200
4,4-DDE	U		0.000165	0.0200
4,4-DDT	U		0.000266	0.0200
Dieldrin	U		0.0000890	0.00200
Endosulfan I	U		0.000214	0.0200
Endosulfan II	U		0.000230	0.0200
Endosulfan sulfate	U		0.000170	0.0200
Endrin	U		0.000219	0.0200
Endrin aldehyde	U		0.000242	0.0200
Endrin ketone	U		0.000159	0.0200
Heptachlor	U		0.000101	0.0200
Heptachlor epoxide	U		0.000378	0.0200
Hexachlorobenzene	U		0.000224	0.0200
Methoxychlor	U		0.000265	0.0200
Chlordane	U		0.0390	0.200
Toxaphene	U		0.0360	0.400
(S) Decachlorobiphenyl	*95.6*			*10.0-148*
(S) Tetrachloro-m-xylene	*93.7*			*21.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3331709-1 08/07/18 17:08 • (LCSD) R3331709-2 08/07/18 17:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Aldrin	0.0666	0.0567	0.0548	85.1	82.3	55.0-137			3.41	29
Alpha BHC	0.0666	0.0550	0.0534	82.6	80.2	55.0-136			2.95	28
Beta BHC	0.0666	0.0507	0.0497	76.1	74.6	53.0-133			1.99	28
Delta BHC	0.0666	0.0531	0.0520	79.7	78.1	53.0-139			2.09	29
Gamma BHC	0.0666	0.0544	0.0531	81.7	79.7	54.0-136			2.42	29
4,4-DDD	0.0666	0.0575	0.0562	86.3	84.4	51.0-141			2.29	29
4,4-DDE	0.0666	0.0587	0.0566	88.1	85.0	53.0-142			3.64	30
4,4-DDT	0.0666	0.0635	0.0619	95.3	92.9	47.0-143			2.55	30
Dieldrin	0.0666	0.0586	0.0568	88.0	85.3	54.0-141			3.12	29
Endosulfan I	0.0666	0.0564	0.0548	84.7	82.3	54.0-141			2.88	29

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3331709-1 08/07/18 17:08 • (LCSD) R3331709-2 08/07/18 17:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Endosulfan II	0.0666	0.0554	0.0540	83.2	81.1	53.0-140			2.56	28
Endosulfan sulfate	0.0666	0.0555	0.0546	83.3	82.0	52.0-141			1.63	29
Endrin	0.0666	0.0592	0.0575	88.9	86.3	52.0-137			2.91	29
Endrin aldehyde	0.0666	0.0514	0.0510	77.2	76.6	30.0-127			0.781	31
Endrin ketone	0.0666	0.0579	0.0572	86.9	85.9	51.0-139			1.22	28
Heptachlor	0.0666	0.0603	0.0587	90.5	88.1	53.0-144			2.69	29
Heptachlor epoxide	0.0666	0.0567	0.0550	85.1	82.6	54.0-137			3.04	28
Hexachlorobenzene	0.0666	0.0488	0.0475	73.3	71.3	50.0-135			2.70	28
Methoxychlor	0.0666	0.0595	0.0590	89.3	88.6	49.0-145			0.844	29
(S) Decachlorobiphenyl				*95.6*	*97.4*	*10.0-148*				
(S) Tetrachloro-m-xylene				*91.3*	*90.5*	*21.0-146*				

L1014122-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1014122-01 08/10/18 01:06 • (MS) R3332622-1 08/10/18 01:21 • (MSD) R3332622-2 08/10/18 01:36

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aldrin	0.0791	U	0.0296	0.0467	37.4	59.0	1	19.0-152		J3	44.9	24
Alpha BHC	0.0791	U	0.0282	0.0506	35.6	64.0	1	39.0-152	J6	J3	57.0	21
Beta BHC	0.0791	U	0.0258	0.0462	32.6	58.4	1	38.0-150	J6	J3	56.8	20
Delta BHC	0.0791	U	0.0289	0.0472	36.5	59.6	1	34.0-155		J3	48.1	21
Gamma BHC	0.0791	0.000826	0.0283	0.0487	35.7	61.6	1	38.0-153	J6	J3	53.1	21
4,4-DDD	0.0791	0.00204	0.0358	0.0529	42.6	64.2	1	22.0-160		J3	38.6	25
4,4-DDE	0.0791	0.00624	0.0395	0.0572	42.0	64.3	1	10.0-160		J3	36.7	27
4,4-DDT	0.0791	0.0227	0.0625	0.0976	50.3	94.6	1	10.0-160		J3	43.8	28
Dieldrin	0.0791	0.0548	0.0744	0.121	24.8	83.9	1	30.0-158	J6	J3	47.9	25
Endosulfan I	0.0791	U	0.0348	0.0491	44.0	62.0	1	31.0-155		J3	34.0	25
Endosulfan II	0.0791	U	0.0333	0.0526	42.0	66.5	1	32.0-156		J3	45.1	25
Endosulfan sulfate	0.0791	U	0.0367	0.0559	46.4	70.6	1	31.0-158		J3	41.3	24
Endrin	0.0791	U	0.0374	0.0512	47.3	64.7	1	30.0-149		J3	31.1	25
Endrin aldehyde	0.0791	U	0.0828	0.0588	105	74.3	1	20.0-157	P	J3	33.9	26
Endrin ketone	0.0791	U	0.0328	0.0555	41.4	70.1	1	32.0-154		J3	51.4	23
Heptachlor	0.0791	U	0.0345	0.0538	43.5	68.0	1	18.0-160		J3	43.9	23
Heptachlor epoxide	0.0791	U	0.0335	0.0474	42.3	59.9	1	31.0-154		J3	34.4	25
Hexachlorobenzene	0.0791	U	0.0304	0.0506	38.4	64.0	1	26.0-146		J3	49.9	21
Methoxychlor	0.0791	U	0.0398	0.0643	50.3	81.2	1	10.0-160		J3	47.0	27
(S) Decachlorobiphenyl					*45.3*	*73.0*		*10.0-148*				
(S) Tetrachloro-m-xylene					*42.3*	*64.7*		*21.0-146*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P	RPD between the primary and confirmatory analysis exceeded 40%.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

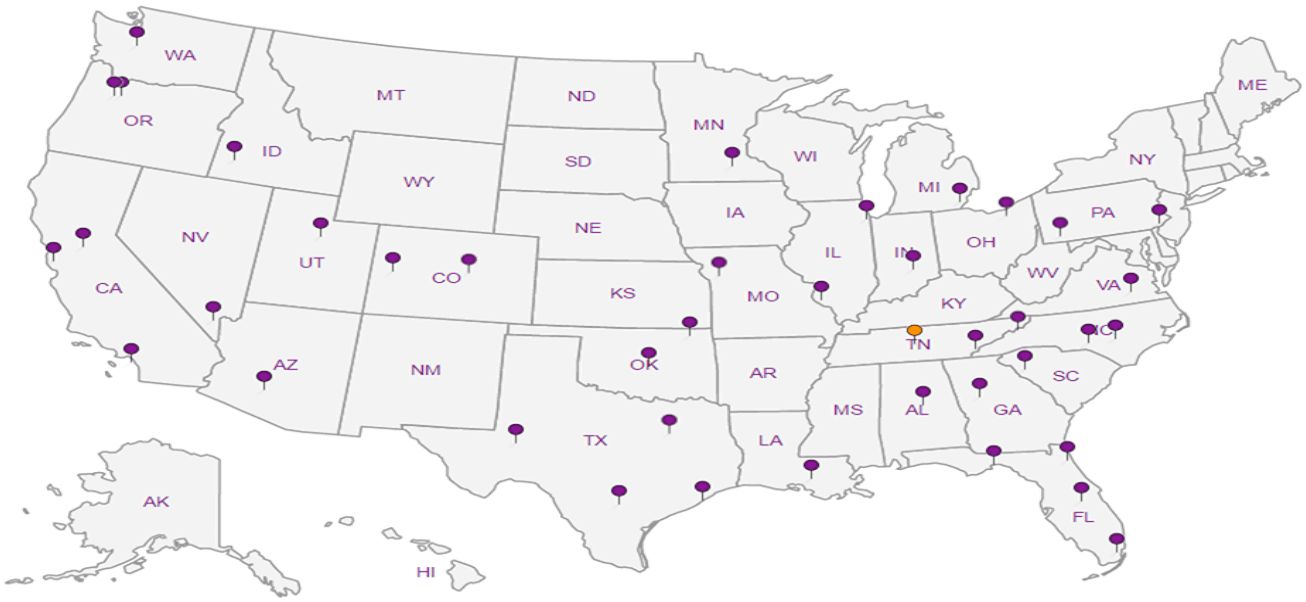
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



McCloskey Consultants Inc.

Billing Information:

Report to: Tom McCloskey / Chris Vertin

Email To:

Project Description: Los Altos High School

City/State Collected: Los Altos, CA

Phone: 925.786.2667 Fax:

Client Project #

Lab Project #

Collected by (print): Chris Vertin

Site/Facility ID #

P.O. #

Collected by (signature): Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Chain of Custody Page 1 of 2

Pace Analytical* National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1014122

E105

Acctnum: MCCCONDCA

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	OCPs (8081)	Arsenic	Lead	Remarks	Sample # (lab only)
SS-1 @ 0-½'	Grab	SS	0-½	7/30/18	12:23	1		X	X	X		-01
SS-2 @ 0-½'					12:38			X	X	X		02
SS-3 @ 0-½'					12:42			X	X	X		03
SS-4 @ 0-½'					12:52			X	X	X		04
SS-5 @ ½-1'			½-1'		12:04			X	X			05
SS-6 @ ½-1'			½-1'		11:56			X	X			06
SS-7 @ 1-1½'			1-1½'		11:49			X	X			07
SS-8 @ ½-1'			½-1'		12:14			X	X			08
SS-9 @			½-1'		12:20			X	X	X		09
SS-10 @			½-1'		13:05			X	X	X		10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH ___ Temp ___

Flow ___ Other ___

Samples returned via: __ UPS __ FedEx __ Courier ___

Tracking # 4430 3421 6588

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y __N
COC Signed/Accurate: Y __N
Bottles arrive intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
+0.5 ml HNO3

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR
	8/1/18	0825	PACE	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.2 °C Bottles Received: 11
PACE	8/1/18	1600	FedEx	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8/2/18 Time: 8:45
			801	Hold: Condition: NCF / (OK)

McCloskey Consultants Inc.

Billing Information:

Report to: Tom McCloskey / Chris Vertin

Email To:

Project Description: Los Altos High School

City/State Collected: Los Altos, CA

Phone: 925.786.2467 Fax:

Client Project #

Lab Project #

Collected by (print): Chris Vertin

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	OCPs (8081)	Arsenic	Lead
SS-11 @ ½-1'	Grab	SS	½-1'	7/30/18	11:42	1	X	X	X

Chain of Custody Page 2 of 2

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1014122

Table #

Acctnum: MCCCONDCA

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Remarks	Sample # (lab only)
	-11

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ____

Remarks:

pH ____ Temp ____

Flow ____ Other ____

Samples returned via:
__ UPS __ FedEx __ Courier ____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	8/1/18	0825	PACE
PACE	8/1/18	1600	FedEx
			8GI

Trip Blank Received: Yes / (No) HCL / MeoH TBR

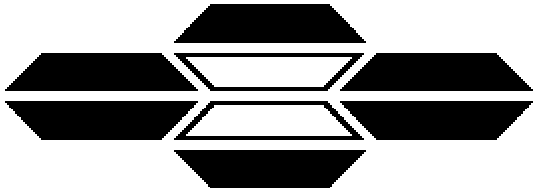
Temp: 0.2°C Bottles Received: 11

If preservation required by Login: Date/Time

Date: 8/2/18 Time: 8:45

Hold:

Condition: NCF / (OK)



ASBESTOS TEM LABORATORIES, INC.

EPA Quantitative Bulk Test Method
Transmission Electron Microscopy
Analytical Report

Laboratory Report # 359829

600 Bancroft Way, Ste. A
Berkeley, CA 94710
(510) 704-8930
FAX (510) 704-8429
www.asbestostemlabs.com

ASBESTOS TEM LABORATORIES, INC

Aug/28/2018

Tom McCloskey

McCloskey Consultants
420 Sycamore Valley Rd West
Danville, CA 94526

RE: LABORATORY REPORT # 359829
Transmission electron microscopy analytical results for 3 bulk material sample(s).
Job Site: Los Altos High School
Job No.:

Please find below the results for the TEM analysis of one or more bulk material samples. The analytical procedures were performed according to the EPA Test Method For the Determination of Asbestos in Bulk Building Materials - TEM method (EPA 600/R-93/116) modified for quantitative bulk soil sample analysis. Prior to analysis, each sample was logged-in and all pertinent data was recorded. Each sample was checked for damage and disruption of any chain-of-custody seals. A unique laboratory number was assigned to each sample. A hard copy Log-In sheet was generated. This, and all other relevant paper work was kept with the sample throughout the analytical procedures to assure proper analysis.

Sample preparation followed a standard CARB 435 prep method. The entire sample was dried at 135-150 C and then crushed to ~3/8" gravel size. If the submitted sample was >1 pint, the sample was split using a 1/2" riffle splitter following ASTM Method C-702-98 to obtain a 1 pint aliquot. The entire 1 pint aliquot, or entire original sample, was then pulverized in a Bico Braun disc pulverizer calibrated to produce a nominal 200 mesh final product. A representative ~60 mg aliquot of material was weighed out, and then placed into solution in a 500 ml beaker filled with distilled water. A known volume of the liquid suspension was filtered onto a 0.2 micron pore size Millipore mixed cellulose ester filter. The filter was then dried in HEPA filtered, Class 100 air on a clean bench. The filter was placed onto a glass microscope slide, sectioned, and collapsed in acetone. The collapsed filter was plasma-etched to remove 10% of the filter surface and then carbon coated. The carbon coated filter was sectioned and the sections placed onto 200-mesh copper TEM sample grids in dimethyl sulfoxide and acetone wick washers. After sufficient time to dissolve the filter material, the TEM sample grids were removed from the baths and placed into labeled sample containers.

TEM analysis was performed on a Philips CM-12 or JEOL 1200 transmission electron microscope operating at 80 or 100 kV. The sample was placed into the microscope where it was first scanned at low magnification to confirm that the distribution of material was reasonably homogeneous. High magnification analysis was performed using a two tier approach: 1) A relatively large area of several TEM grid openings for large asbestos fibers or fiber bundles, and 2) a relatively small area of a number of fields of view for individual asbestos fibers (fibrous particles exhibiting an aspect ratio greater than or equal to 3 to 1, and a length greater than or equal to .5 um). Detected asbestiform structures were subjected to detailed morphological and/or selected area diffraction analysis. If necessary, energy dispersive X-ray analysis was also performed. The length and width of each asbestos fiber was measured. From this data, a total volume and mass of asbestos observed in the scanned area is calculated, and extrapolated to a total weight percent asbestos for each sample.

Sincerely Yours,

Laboratory Manager

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Tom McCloskey	**REPORT NO.**	**359829**
Address:	McCloskey Consultants 420 Sycamore Valley Rd West Danville, CA 94526	Date:	Aug-28-18
		Date Received:	Aug-23-18
Job Site / No.	Los Altos High School	Total Samples Analyzed:	3

Client Sample # SS-1 @0-0.5'

Laboratory Sample # 1340-01090-001

SAMPLE DESCRIPTION

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	59.18	Filter Type & Pore Size	MCE0.22um
Volume of Suspension Water (ml):	500	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	NSD	NSD

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.0001	<0.0001	<0.0001

COMMENTS

No Asbestos Detected

Filter Loading: Moderate

SAED Photo ID Nos.

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0086	Bundle Scan Area (sq.mm)	0.172
Grid Op. # Scanned For Small Fibers & Bundles	20	Grid Area (sq.mm)	0.0086	Fiber Scan Area (sq.mm)	0.172
		Magnification:	18,000X		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Jia Meisheng

Analyst Signature

Meg Summer-Moore

Lab QC Reviewer Signature

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com
600 BANCROFT WAY, STE. A, BERKELEY, CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Tom McCloskey	**REPORT NO.**	**359829**
Address:	McCloskey Consultants 420 Sycamore Valley Rd West Danville, CA 94526	Date:	Aug-28-18
		Date Received:	Aug-23-18
Job Site / No.	Los Altos High School	Total Samples Analyzed:	3

Client Sample # SS-8 @1-2'

Laboratory Sample # 1340-01090-002

SAMPLE DESCRIPTION

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	59.92	Filter Type & Pore Size	MCE0.22um
Volume of Suspension Water (ml):	500	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	8	NSD

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.0001	0.031	0.031

COMMENTS

Actinolite Asbestos Detected

Filter Loading: Moderate

SAED Photo ID Nos.

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0086	Bundle Scan Area (sq.mm)	0.172
Grid Op. # Scanned For Small Fibers & Bundles	20	Grid Area (sq.mm)	0.0086	Fiber Scan Area (sq.mm)	0.172
		Magnification:	18,000X		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Jia Meisheng

Analyst Signature

Meg Summer-Moore

Lab QC Reviewer Signature

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With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Tom McCloskey	**REPORT NO.**	**359829**
Address:	McCloskey Consultants 420 Sycamore Valley Rd West Danville, CA 94526	Date:	Aug-28-18
		Date Received:	Aug-23-18
Job Site / No.	Los Altos High School	Total Samples Analyzed:	3

Client Sample # SS-11 @1-2'

Laboratory Sample # 1340-01090-003

SAMPLE DESCRIPTION

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	59.56	Filter Type & Pore Size	MCE0.22um
Volume of Suspension Water (ml):	500	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	17	NSD

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.0001	0.077	0.077

COMMENTS

Actinolite Asbestos Detected

Filter Loading: Moderate

SAED Photo ID Nos.

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0086	Bundle Scan Area (sq.mm)	0.172
Grid Op. # Scanned For Small Fibers & Bundles	20	Grid Area (sq.mm)	0.0086	Fiber Scan Area (sq.mm)	0.172
		Magnification:	18,000X		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Jia Meisheng

Analyst Signature

Meg Sumner-Moore

Lab QC Reviewer Signature

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com
600 BANCROFT WAY, STE. A, BERKELEY, CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377

359829

ASBESTOS TEM LABORATORIES CHAIN OF CUSTODY

CALIFORNIA: 600 Bancroft Way, Suite A, Berkeley, CA 94710 Phone (510) 704-8930 Fax (510) 704-8429
NEVADA: 1350 Freeport Blvd. #104, Sparks, NV 89431 Phone (775) 359-3377 Fax (775) 359-2798
You may also email this chain of custody to coc@asbestostemlabs.com ** denotes required field*

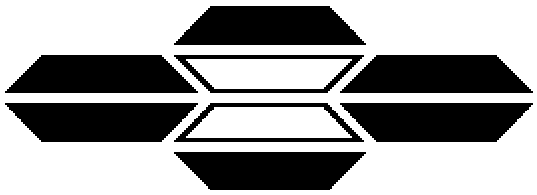
Company: McCloskey Consultants	Contact:* Tom McCloskey / Chris Vertin	Phone: * 925.786.2667	Email: *
Address: *420 Sycamore Valley Rd West	City: * Danville	State: *CA Zip: 94526	Email:
Job Site:* Los Altos High School	Job #:	PO #:	Email:

Reporting *	☐ Email	☐ Phone	☐ Fax	☐ Mail	☐ FTP	☐ Pickup	Billing	☐ Fax	☐ Email	☐ Mail	☐ Pre-Paid	☐ On Receipt:	☐ 3rd Party
Results Due:*	☐ 2 HR	☐ 4 HR	☐ 6 HR	☐ 8 HR	☐ 24 HR	☐ 48 HR	☐ 3 DAY	☐ 4 DAY	☒ 5 DAY	☐ 10 DAY	☐ Hold Samples	☐ After Hours: **	see below
Asbestos Air	☐ PCM (NIOSH 7400A	☐ TEM AHERA	☐ TEM CARB Mod. AHERA	☐ TEM EPA Yamate Level II	☐ TEM NIOSH 7402	☐ ISO 10312	☐ ISO 13794						
Asbestos Bulk	☐ PLM Standard (EPA 600/R-93-1)	☐ PLM 400 PC	☐ PLM 1000 PC	☐ PLM 400 PC Grav. Red	☐ PLM 1000 PC Grav. Red.	☐ TEM EPA Qualitative	☐ TEM EPA Quantitatve						
	☐ TEM Chatfield (Semi-Quant)	☐ PREP ONLY	☐ Custom Analysis: **										
Asbestos Soils	☐ CARB 435 Prep Only	☐ CARB 435 PLM 400 PC	☐ CARB 435 PLM 1000 PC	☐ EPA Soil Screening Qualitative	☒ TEM EPA/CARB Quantitative								
Asbestos Dust	☐ ASTM D-5755 Fiber Count	☐ ASTM D-5755 Wt. %	☐ ASTM D-5756 Mass	☐ ASTM D-6480-99 Dust Wipe	☐ Total Particulates (Grav.)								
Asbestos Water	☐ 100.2 Potable Drinking Water	☐ 100.1 Non Potable Water	☐ REPORT TO STATE: EDT #										
Lead/Silica	☐ Lead Paint Chips	☐ Lead Dust Wipe	☐ Lead Air Cassette	☐ Lead Soil	☐ Silica Dust Airborne by NIOSH 7500	☐ Crystalline Silica (Single Species)	☐ Silica Dust Bulk by NIOSH 7500	☐ Crystalline Silica in Bulk (Single Species)					
Sample Storage	☐ No Test, Hold Until:	☐ Test AND Hold Until:	*All samples will be held for 2 months from the date of receipt at ATEM. Additional sample storage time may be obtained through ATEM Customer Service.*										
Custom Order	☐ Sensitivity:	☐ Composite	8 Hour TWA ☐	**Special Instructions:**									
REANALYSIS	Original Login/Lot # /	New Analysis Type:	TAT:	Special Instructions:									

Sample # *	Sample Type	Date Collected	Time On	Time Off	Total Time (min)	Flow Rate (lpm) On	Flow Rate (lpm) Off	Flow Rate (lpm) Average	Volume or Area Sampled	Hold Sample	Description *
SS-1@0-½'	Bulk Soil	7/30/18	12:23							☐	
SS-8@1-2'	"	"	12:16							☐	
SS-11@1-2'	"	"	11:44							☐	
										☐	
										☐	
										☐	
										☐	
										☐	
										☐	
										☐	
										☐	
										☐	

Submitted By *	[signature]	Received By	MB
Date/Time Submitted *	8/27/18	Date/Time Received	
Submitted By		Received By	
Date/Time Submitted		Date/Time Received	

*** Any special instructions, RUSH results or Custom Analysis, you must clarify these specifications AND, of more importance, contact us here at ATEM ahead of time to manage scheduling to meet your requests. Drop off and processing of samples after hours cannot be accommodated without proper notification from you, and confirmation by ATEM staff.*



ASBESTOS TEM LABORATORIES, INC.

CARB/EPA Quantitative Bulk Test Method
Transmission Electron Microscopy
Analytical Report

Laboratory Report # 367081

600 Bancroft Way, Ste. A
Berkeley, CA 94710
(510) 704-8930
FAX (510) 704-8429
www.asbestostemlabs.com

ASBESTOS TEM LABORATORIES, INC

Nov/14/2019

Tom McCloskey

McCloskey Consultants
420 Sycamore Valley Rd West
Danville, CA 94526

RE: LABORATORY REPORT # 367081
Transmission electron microscopy analytical results for 2 bulk material sample(s).
Job Site: Los Altos High School
Job No.:

Please find below the results for the TEM analysis of one or more bulk material samples. The analytical procedures were performed according to the EPA Test Method For the Determination of Asbestos in Bulk Building Materials - TEM method (EPA 600/R-93/116) modified for quantitative bulk soil sample analysis. Prior to analysis, each sample was logged-in and all pertinent data was recorded. Each sample was checked for damage and disruption of any chain-of-custody seals. A unique laboratory number was assigned to each sample. A hard copy Log-In sheet was generated. This, and all other relevant paper work was kept with the sample throughout the analytical procedures to assure proper analysis.

Sample preparation followed a standard CARB 435 prep method. The entire sample was dried at 135-150 C and then crushed to ~3/8" gravel size. If the submitted sample was >~1 quart, the sample may have been split using a 1/2" riffle splitter following ASTM Method C-702-98 to reduce the sample volume for pulverization. The remaining aliquot, or entire original sample, was then pulverized in a Bico Braun disc pulverizer calibrated to produce a nominal 200 mesh final product. A representative ~60 mg aliquot of material was weighed out, and then placed into solution in a 500 ml beaker filled with distilled water. A known volume of the liquid suspension was filtered onto a 0.2 micron pore size Millipore mixed cellulose ester filter. The filter was then dried in HEPA filtered, Class 100 air on a clean bench. The filter was placed onto a glass microscope slide, sectioned, and collapsed in acetone. The collapsed filter was plasma-etched to remove 10% of the filter surface and then carbon coated. The carbon coated filter was sectioned and the sections placed onto 200-mesh copper TEM sample grids in dimethyl sulfoxide and acetone wick washers. After sufficient time to dissolve the filter material, the TEM sample grids were removed from the baths and placed into labeled sample containers.

TEM analysis was performed on a Philips CM-12 or JEOL 1200 transmission electron microscope operating at 80 or 100 kV. The sample was placed into the microscope where it was first scanned at low magnification to confirm that the distribution of material was reasonably homogeneous. High magnification analysis was performed using a two tier approach: 1) A relatively large area of several TEM grid openings for large asbestos fibers or fiber bundles, and 2) a relatively small area of a number of fields of view for individual asbestos fibers (fibrous particles exhibiting an aspect ratio greater than or equal to 3 to 1, and a length greater than or equal to .5 um). Detected asbestiform structures were subjected to detailed morphological and/or selected area diffraction analysis. If necessary, energy dispersive X-ray analysis was also performed. The length and width of each asbestos fiber was measured. From this data, a total volume and mass of asbestos observed in the scanned area is calculated, and extrapolated to a total weight percent asbestos for each sample.

Sincerely Yours,

Laboratory Manager

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Tom McCloskey	**REPORT NO.**	**367081**
Address:	McCloskey Consultants 420 Sycamore Valley Rd West Danville, CA 94526	Date:	Nov-13-19
		Date Received:	Nov-07-19
Job Site / No.	Los Altos High School	Total Samples Analyzed:	2

Client Sample # SS-12@2-3'

Laboratory Sample # 1340-01461-001

SAMPLE DESCRIPTION

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	62.04	Filter Type & Pore Size	MCE0.22um
Volume of Suspension Water (ml):	500	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	6	3

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	0.27	0.27

COMMENTS

Actinolite Asbestos Detected

Filter Loading: Moderate

SAED Photo ID Nos.

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0097	Bundle Scan Area (sq.mm)	0.194
Grid Op. # Scanned For Small Fibers & Bundles	1	Grid Area (sq.mm)	0.0097	Fiber Scan Area (sq.mm)	0.0097
		Magnification:	18,000X		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com
600 BANCROFT WAY, STE. A, BERKELEY, CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Tom McCloskey	**REPORT NO.**	**367081**
Address:	McCloskey Consultants 420 Sycamore Valley Rd West Danville, CA 94526	Date:	Nov-13-19
		Date Received:	Nov-07-19
Job Site / No.	Los Altos High School	Total Samples Analyzed:	2

Client Sample # SS-13@1 1/2-2'

Laboratory Sample # 1340-01461-002

SAMPLE DESCRIPTION

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	58.95	Filter Type & Pore Size	MCE0.22um
Volume of Suspension Water (ml):	500	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	4	1

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	0.77	0.77

COMMENTS

Actinolite Asbestos Detected.
Non-Regulated Amphibole (1 Hornblende) Observed.

Filter Loading: Moderate

SAED Photo ID Nos.

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0097	Bundle Scan Area (sq.mm)	0.194
Grid Op. # Scanned For Small Fibers & Bundles	1	Grid Area (sq.mm)	0.0097	Fiber Scan Area (sq.mm)	0.0097
		Magnification:	18,000X		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

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367081

ASBESTOS TEM LABORATORIES CHAIN OF CUSTODY

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NEVADA: 1350 Freeport Blvd. #104, Sparks, NV 89431 Phone (775) 359-3377 Fax (775) 359-2798
You may also email this chain of custody to coc@asbestostemlabs.com ***** denotes required field**

Company: MCL- McCloskey Consultants	Contact:* Tom McCloskey	Phone:* 925.818.786.2667	Email:* Tom@mccloskeyconsultants.com
Address:* 420 Sycamore Valley Rd West	City:* Danville	State:* CA Zip: 94526	Email:
Job Site:* Los Altos High School	Job #:	PO #:	Email:

Reporting *	☐ Email	☐ Phone	☐ Fax	☐ Mail	☐ FTP	☐ Pickup	**Billing**	☐ Fax	☐ Email	☐ Mail	☐ Pre-Paid	☐ On Receipt:	☐ 3rd Party
Results Due:*	☐ 2 HR	☐ 4 HR	☐ 6 HR	☐ 8 HR	☐ 24 HR	☐ 48 HR	☐ 3 DAY	☐ 4 DAY	☒ 5 DAY	☐ 10 DAY	☐ Hold Samples	☐ **After Hours: ****_____	***see below***
Asbestos Air	☐ PCM (NIOSH 7400A		☐ TEM AHERA		☐ TEM CARB Mod. AHERA		☐ TEM EPA Yamate Level II		☐ TEM NIOSH 7402			☐ ISO 10312	☐ ISO 13794
Asbestos Bulk	☐ PLM Standard (EPA 600/R-93-1)		☐ PLM 400 PC		☐ PLM 1000 PC		☐ PLM 400 PC Grav. Red.		☐ PLM 1000 PC Grav. Red.		☐ TEM EPA Qualitative		☐ TEM EPA Quantitatve
	☐ TEM Chatfield (Semi-Quant)		☐ **PREP ONLY**		☐ **Custom Analysis: ****_____								
Asbestos Soils	☐ CARB 435 Prep Only		☐ CARB 435 PLM 400 PC				☐ CARB 435 PLM 1000 PC		☐ EPA Soil Screening Qualitative			☒ TEM EPA/CARB Quantitative	
Asbestos Dust	☐ ASTM D-5755 Fiber Count		☐ ASTM D-5756 Wt. %		☐ ASTM D-5756 Mass				☐ ASTM D-6480-99 Dust Wipe			☐ Total Particulates (Grav.)	
Asbestos Water	☐ 100.2 Potable Drinking Water		☐ 100.1 Non Potable Water		☐ REPORT TO STATE: EDT # _____								
Lead/Silica	☐ Lead Paint Chips		☐ Lead Dust Wipe		☐ Lead Air Cassette	☐ Lead Soil	☐ Silica Dust Airborne by NIOSH 7500		☐ Crystalline Silica (Single Species)		☐ Silica Dust Bulk by NIOSH 7500		☐ Crystalline Silica in Bulk (Single Species)
Sample Storage	☐ No Test, Hold Until: _____		☐ Test AND Hold Until: _____ *All samples will be held for 3 months from the date of receipt at ATEM. Additional sample storage time may be obtained through ATEM Customer Service.*										
Custom Order	☐ Sensitivity: _____		☐ Composite		**8 Hour TWA** ☐		**Special Instructions:**						
REANALYSIS	Original Login/Lot # _____/_____ New Analysis Type: _____ TAT: _____ Special Instructions: _____												

Sample #*	Sample Type	Date Collected	Time On	Time Off	Total Time (min)	Flow Rate (lpm) On	Flow Rate (lpm) Off	Flow Rate (lpm) Average	Volume or Area Sampled	Hold Sample	Description*
SS-12@2-3'	Soil	10-14-19	11:30							☐	
SS-13@1½-2'	Soil	10-15-19	11:54							☐	
										☐	
										☐	
										☐	
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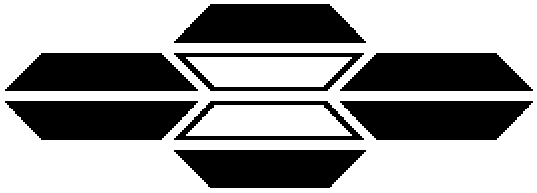
Submitted By*		**Received By**	MB
Date/Time Submitted*	11.7.19 13:40	**Date/Time Received**	
Submitted By		**Received By**	
Date/Time Submitted		**Date/Time Received**	

*** Any special instructions, RUSH results or Custom Analysis, you must clarify these specifications AND, of more importance, contact us here at ATEM ahead of time to manage scheduling to meet your requests. Drop off and processing of samples after hours cannot be accommodated without proper notification from you, and confirmation by ATEM staff.*



ASBESTOS TEM LABORATORIES, INC.

CARB/EPA Quantitative Bulk Test Method
Transmission Electron Microscopy
Analytical Report

Laboratory Report # 367501

600 Bancroft Way, Ste. A
Berkeley, CA 94710
(510) 704-8930
FAX (510) 704-8429
www.asbestostemlabs.com

ASBESTOS TEM LABORATORIES, INC

Dec/12/2019

Tom McCloskey/Chris

McCloskey Consultants
420 Sycamore Valley Rd West
Danville, CA 94526

RE: LABORATORY REPORT # 367501
Transmission electron microscopy analytical results for 4 bulk material sample(s).
Job Site: Los Altos H.S.
Job No.:

Please find below the results for the TEM analysis of one or more bulk material samples. The analytical procedures were performed according to the EPA Test Method For the Determination of Asbestos in Bulk Building Materials - TEM method (EPA 600/R-93/116) modified for quantitative bulk soil sample analysis. Prior to analysis, each sample was logged-in and all pertinent data was recorded. Each sample was checked for damage and disruption of any chain-of-custody seals. A unique laboratory number was assigned to each sample. A hard copy Log-In sheet was generated. This, and all other relevant paper work was kept with the sample throughout the analytical procedures to assure proper analysis.

Sample preparation followed a standard CARB 435 prep method. The entire sample was dried at 135-150 C and then crushed to ~3/8" gravel size. If the submitted sample was >~1 quart, the sample may have been split using a 1/2" riffle splitter following ASTM Method C-702-98 to reduce the sample volume for pulverization. The remaining aliquot, or entire original sample, was then pulverized in a Bico Braun disc pulverizer calibrated to produce a nominal 200 mesh final product. A representative ~60 mg aliquot of material was weighed out, and then placed into solution in a 500 ml beaker filled with distilled water. A known volume of the liquid suspension was filtered onto a 0.2 micron pore size Millipore mixed cellulose ester filter. The filter was then dried in HEPA filtered, Class 100 air on a clean bench. The filter was placed onto a glass microscope slide, sectioned, and collapsed in acetone. The collapsed filter was plasma-etched to remove 10% of the filter surface and then carbon coated. The carbon coated filter was sectioned and the sections placed onto 200-mesh copper TEM sample grids in dimethyl sulfoxide and acetone wick washers. After sufficient time to dissolve the filter material, the TEM sample grids were removed from the baths and placed into labeled sample containers.

TEM analysis was performed on a Philips CM-12 or JEOL 1200 transmission electron microscope operating at 80 or 100 kV. The sample was placed into the microscope where it was first scanned at low magnification to confirm that the distribution of material was reasonably homogeneous. High magnification analysis was performed using a two tier approach: 1) A relatively large area of several TEM grid openings for large asbestos fibers or fiber bundles, and 2) a relatively small area of a number of fields of view for individual asbestos fibers (fibrous particles exhibiting an aspect ratio greater than or equal to 3 to 1, and a length greater than or equal to .5 um). Detected asbestiform structures were subjected to detailed morphological and/or selected area diffraction analysis. If necessary, energy dispersive X-ray analysis was also performed. The length and width of each asbestos fiber was measured. From this data, a total volume and mass of asbestos observed in the scanned area is calculated, and extrapolated to a total weight percent asbestos for each sample.

Sincerely Yours,

Laboratory Manager

Disclaimer - These results relate only to the samples tested as received and must not be reproduced, except in full, with the approval of the laboratory. Incorrect or illegible information supplied by the customer may adversely affect the validity of test results.

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Tom McCloskey/Chris	**REPORT NO.**	**367501**
Address:	McCloskey Consultants 420 Sycamore Valley Rd West Danville, CA 94526	Date:	Dec-12-19
		Date Received:	Dec-09-19
Job Site / No.	Los Altos H.S.	Total Samples Analyzed:	4

Client Sample # BP-1

Laboratory Sample # 1340-01484-001

SAMPLE DESCRIPTION

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	60.57	Filter Type & Pore Size	MCE0.22um
Volume of Suspension Water (ml):	500	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	16	2

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	0.113	0.113

COMMENTS

Regulated Amphibole (15 Actinolite) and Non-Regulated Amphibole (3 Hornblende) Asbestos Detected.

Filter Loading: Moderate

SAED Photo ID Nos.

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0097	Bundle Scan Area (sq.mm)	0.194
Grid Op. # Scanned For Small Fibers & Bundles	5	Grid Area (sq.mm)	0.0097	Fiber Scan Area (sq.mm)	0.0485
		Magnification:	15,000X		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Lab QC Reviewer Signature

ASBESTOS TEM LABORATORIES, INC.
www.asbestostemlabs.com
600 BANCROFT WAY, STE. A, BERKELEY, CA 94710 (510) 704-8930
With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Tom McCloskey/Chris	**REPORT NO.**	**367501**
Address:	McCloskey Consultants 420 Sycamore Valley Rd West Danville, CA 94526	Date:	Dec-12-19
		Date Received:	Dec-09-19
Job Site / No.	Los Altos H.S.	Total Samples Analyzed:	4

Client Sample # BP-2

Laboratory Sample # 1340-01484-002

SAMPLE DESCRIPTION

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	60.62	Filter Type & Pore Size	MCE0.22um
Volume of Suspension Water (ml):	500	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	21	1

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	0.421	0.421

COMMENTS

Regulated Amphibole (18 Actinolite) and Non-Regulated Amphibole (4 Hornblende) Asbestos Detected.

Filter Loading: Moderate

SAED Photo ID Nos.

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0097	Bundle Scan Area (sq.mm)	0.194
Grid Op. # Scanned For Small Fibers & Bundles	1	Grid Area (sq.mm)	0.0097	Fiber Scan Area (sq.mm)	0.0097
		Magnification:	15,000X		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Clara Dingman

Lab QC Reviewer Signature

ASBESTOS TEM LABORATORIES, INC.
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With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Tom McCloskey/Chris	**REPORT NO.**	**367501**
Address:	McCloskey Consultants 420 Sycamore Valley Rd West Danville, CA 94526	Date:	Dec-12-19
		Date Received:	Dec-09-19
Job Site / No.	Los Altos H.S.	Total Samples Analyzed:	4

Client Sample # BP-3

Laboratory Sample # 1340-01484-003

SAMPLE DESCRIPTION

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	62.2	Filter Type & Pore Size	MCE0.22um
Volume of Suspension Water (ml):	500	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	19	NSD

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	0.057	0.057

COMMENTS

Regulated Amphibole (15 Actinolite) and Non-Regulated Amphibole (4 Hornblende) Asbestos Detected.

Filter Loading: Moderate

SAED Photo ID Nos.

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0097	Bundle Scan Area (sq.mm)	0.194
Grid Op. # Scanned For Small Fibers & Bundles	5	Grid Area (sq.mm)	0.0097	Fiber Scan Area (sq.mm)	0.0485
		Magnification:	20,000X		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Ilana Bingman

Lab QC Reviewer Signature

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With Offices in Reno, NV (775) 359-3377

TRANSMISSION ELECTRON MICROSCOPY
ANALYTICAL REPORT

Contact:	Tom McCloskey/Chris	**REPORT NO.**	**367501**
Address:	McCloskey Consultants 420 Sycamore Valley Rd West Danville, CA 94526	Date:	Dec-12-19
		Date Received:	Dec-09-19
Job Site / No.	Los Altos H.S.	Total Samples Analyzed:	4

Client Sample # UT-1

Laboratory Sample # 1340-01484-004

SAMPLE DESCRIPTION

SAMPLE PREPARATION PARAMETERS

Weight of Material Suspended (mg):	59.88	Filter Type & Pore Size	MCE0.22um
Volume of Suspension Water (ml):	500	Effective Filter Area (sq.mm)	346
Volume of Suspension Filtered (ml):	0.5		

ASBESTOS STRUCTURES DETECTED IN SCAN AREA

CHRYSOTILE		AMPHIBOLE	
< 5 µm	≥ 5 µm	< 5 µm	≥ 5 µm
NSD	NSD	14	NSD

CALCULATED ASBESTOS CONCENTRATION (WEIGHT %)

CHRYSOTILE	AMPHIBOLE	TOTAL
<0.001	0.062	0.062

COMMENTS

Regulated Amphibole (12 Actinolite) and Non-Regulated Amphibole (2 Hornblende) Asbestos Detected.

Filter Loading: Moderate

SAED Photo ID Nos.

TEM / ANALYTICAL PARAMETERS

Grid Op. # Scanned For Large Fibers & Bundles	20	Grid Area (sq.mm)	0.0097	Bundle Scan Area (sq.mm)	0.194
Grid Op. # Scanned For Small Fibers & Bundles	5	Grid Area (sq.mm)	0.0097	Fiber Scan Area (sq.mm)	0.0485
		Magnification:	20,000X		

NOTATION KEY

Chrys. - Chrysotile Asbestos
Amph. - Amphibole Asbestos
NSD - No Structures Detected
Non-Asb. - Non-Asbestos

1 um = 1 micron = 0.001 mm
1 mm = 1 millimeter
1 sq.mm = 1 square millimeter
1 cc = 1 cubic centimeter

Analyst Signature

Ilana Bingman

Lab QC Reviewer Signature

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With Offices in Reno, NV (775) 359-3377

367501

ASBESTOS TEM LABORATORIES CHAIN OF CUSTODY

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NEVADA: 1350 Freeport Blvd. #104, Sparks, NV 89431 Phone (775) 359-3377 Fax (775) 359-2798

You may also email this chain of custody to coc@asbestastemlabs.com **** denotes required field***

Company: McCloskey Consultants	Contact:* Tom McCloskey / Chris Vertin	Phone:* ~~9257862467~~ 9257862467	Email:* tom@mccloskeyconsultants.com
Address:* 420 Sycamore Valley Rd West	City:* Danville	State:* CA Zip: 94526	Email: chris@cvenvironmental.com
Job Site:* Los Altos H.S	Job #:	PO #:	Email:

Reporting *	☐ Email	☐ Phone	☐ Fax	☐ Mail	☐ FTP	☐ Pickup	**Billing**	☐ Fax	☐ Email	☐ Mail	☐ Pre-Paid	☐ On Receipt:	☐ 3rd Party
Results Due:*	☐ 2 HR	☐ 4 HR	☐ 6 HR	☐ 8 HR	☐ 24 HR	☐ 48 HR	(X) 3 DAY	☐ 4 DAY	☐ 5 DAY	☐ 10 DAY	☐ Hold Samples	☐ *After Hours: ***_____	*see below*
Asbestos Air	☐ PCM (NIOSH 7400A	☐ TEM AHERA	☐ TEM CARB Mod. AHERA	☐ TEM EPA Yamate Level II	☐ TEM NIOSH 7402	☐ ISO 10312	☐ ISO 13794						
Asbestos Bulk	☐ PLM Standard (EPA 600/R-93-1)	☐ PLM 400 PC	☐ PLM 1000 PC	☐ PLM 400 PC Grav. Red.	☐ PLM 1000 PC Grav. Red.	☐ TEM EPA Qualitative	☐ TEM EPA Quantitatve						
	☐ TEM Chatfield (Semi-Quant)	☐ PREP ONLY	☐ Custom Analysis: **										
Asbestos Soils	☐ CARB 435 Prep Only	☐ CARB 435 PLM 400 PC	☐ CARB 435 PLM 1000 PC	☐ EPA Soil Screening Qualitative	(X) TEM EPA/CARB Quantitative								
Asbestos Dust	☐ ASTM D-5755 Fiber Count	☐ ASTM D-5756 Wt. %	☐ ASTM D-5756 Mass	☐ ASTM D-6480-99 Dust Wipe	☐ Total Particulates (Grav.)								
Asbestos Water	☐ 100.2 Potable Drinking Water	☐ 100.1 Non Potable Water	☐ REPORT TO STATE: EDT # _____										
Lead/Silica	☐ Lead Paint Chips	☐ Lead Dust Wipe	☐ Lead Air Cassette	☐ Lead Soil	☐ Silica Dust Airborne by NIOSH 7500	☐ Crystalline Silica (Single Species)	☐ Silica Dust Bulk by NIOSH 7500	☐ Crystalline Silica in Bulk (Single Species)					
Sample Storage	☐ No Test, Hold Until: _____	☐ Test AND Hold Until: _____ *All samples will be held for 3 months from the date of receipt at ATEM. Additional sample storage time may be obtained through ATEM Customer Service.*											
Custom Order	☐ Sensitivity: _____	☐ Composite	**8 Hour TWA** ☐	**Special Instructions:**									
REANALYSIS	Original Login/Lot # _____/_____	New Analysis Type: _____	TAT: _____	Special Instructions: _____									

Sample # *	Sample Type	Date Collected	Time On	Time Off	Total Time (min)	Flow Rate (lpm) On	Flow Rate (lpm) Off	Flow Rate (lpm) Average	Volume or Area Sampled	Hold Sample	Description *
BP-1	Bulk Soil	12-6-19	13:34							☐	
BP-2	"	"	13:39							☐	
BP-3	"	"	13:41							☐	
UT-1	"	"	13:49							☐	
										☐	
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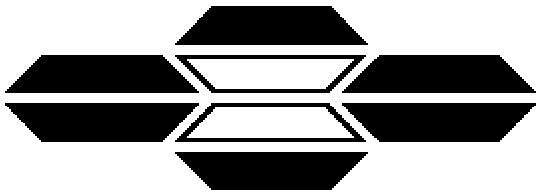
										☐	

Submitted By *	**Received By**
Date/Time Submitted * Dec 9, 19 -	**Date/Time Received**
Submitted By	**Received By**
Date/Time Submitted	**Date/Time Received**

*** Any special instructions, RUSH results or Custom Analysis, you must clarify these specifications AND, of more importance, contact us here at ATEM ahead of time to manage scheduling to meet your requests. Drop off and processing of samples after hours cannot be accommodated without proper notification from you, and confirmation by ATEM staff.*



ASBESTOS TEM LABORATORIES, INC.

CARB Method 435
Polarized Light Microscopy
Analytical Report

Laboratory Job # 1340-01483

630 Bancroft Way
Berkeley, CA 94710
(510) 704-8930
FAX (510) 704-8429

ASBESTOS TEM LABORATORIES, INC

CA DPH ELAP
Lab No. 1866

NVLAP Lab Code: 101891-0
Berkeley, CA

Dec/12/2019

Tom McCloskey/Chris
McCloskey Consultants
420 Sycamore Valley Rd West
Danville, CA 94526

RE: LABORATORY JOB # 1340-01483
Polarized light microscopy analytical results for 4 bulk sample(s).
Job Site:
Job No.: Los Altos H.S.

Enclosed please find the bulk material analytical results for one or more samples submitted for asbestos analysis. The analyses were performed in accordance with the California Air Resources Board (ARB) Method 435 for the determination of asbestos in serpentine aggregate samples.

Prior to analysis, samples are logged-in and all data pertinent to the sample recorded. The samples are checked for damage or disruption of any chain-of-custody seals. A unique laboratory ID number is assigned to each sample. A hard copy log-in sheet containing all pertinent information concerning the sample is generated. This and all other relevant paper work are kept with the sample throughout the analytical procedures to assure proper analysis.

Sample preparation follows a standard CARB 435 prep method. The entire sample is dried at 135-150 C and then crushed to ~3/8" gravel size using a Bico Chipmunk crusher. If the submitted sample is >1 pint, the sample was split using a 1/2" riffle splitter following ASTM Method C-702-98 to obtain a 1 pint aliquot. The entire 1 pint aliquot, or entire original sample, is then pulverized in a Bico Braun disc pulverizer calibrated to produce a nominal 200 mesh final product. If necessary, additional homogenization steps are undertaken using a 3/8" riffle splitter. Small aliquots are collected from throughout the pulverized material to create three separate microsope slide mounts containing the appropriate refractive index oil. The prepared slides are placed under a polarizing light microscope where standard mineralogical techniques are used to analyze the various materials present, including asbestos. If asbestos is identified and of less than 10% concentration by visual area estimate then an additional five sample mounts are prepared. Quantification of asbestos concentration is obtained using the standard CAL ARB Method 435 point count protocol. For samples observed to contain visible asbestos of less than 10% concentration, a point counting techinique is used with 50 points counted on each of eight sample mounts for a total of 400 points. The data is then compiled into standard report format and subjected to a thorough quality assurance check before the information is released to the client.

While the CARB 435 method has much to commend it, there are a number of situations where it fails to provide sufficient accuracy to make a definitive determination of the presence/absence of asbestos and/or an accurate count of the asbestos concentration present in a given sample. These problems include, but are not limited to, 1) statistical uncertainty with samples containing <1% asbestos when too few particles are counted, 2) definitive identification and discrimination between various fibrous amphibole minerals such as tremolite/actinolite/hornblende and the "Libby amphiboles" such as tremolite/winchite/richterite/arfvedsonite, and C) small asbestiform fibers which are near or below the resolution limit of the PLM microscope such as those found in various California coast range serpentine bodies. In these cases, further analysis by transmission electron microscopy is recommended to obtain a more accurate result.

Sincerely Yours,

Lab Manager
ASBESTOS TEM LABORATORIES, INC.

POLARIZED LIGHT MICROSCOPY
CARB 435 ANALYTICAL REPORT

Contact: Tom McCloskey/Chris Vertin
Address: McCloskey Consultants
420 Sycamore Valley Rd West
Danville, CA 94526

Samples Submittec 4
Samples Analyzed: 4
Job Site / No. Los Altos H.S.

Report No. **367500**
Date Submitted: Dec-09-19
Date Reported: Dec-10-19

SAMPLE ID	POINTS COUNTED	ASBESTOS %	ASBESTOS TYPE	LOCATION / DESCRIPTION
BP-1 Lab ID # 1340-01483-001	**400** - Total Points	**<0.25%**	**None Detected**	No Asbestos Detected
BP-2 Lab ID # 1340-01483-002	**400** - Total Points	**<0.25%**	**None Detected**	No Asbestos Detected
BP-3 Lab ID # 1340-01483-003	**400** - Total Points	**<0.25%**	**None Detected**	No Asbestos Detected
UT-1 Lab ID # 1340-01483-004	**400** - Total Points	**<0.25%**	**None Detected**	No Asbestos Detected
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			
Lab ID #	- Total Points			

QC Reviewer R. McBain

Analys Jo Ann Huertas

Appendix C

Remediation Documentation and Weigh Tags

Tom McCloskey
McCloskey Consultants
420 Sycamore Valley Road West
Danville, California 94526
Tel: 925 786 2667
Email: tom@mccloskeyconsultants.com

RE: Los Altos H.S.

Work Order No.: 1910130

Dear Tom McCloskey:

Torrent Laboratory, Inc. received 7 sample(s) on October 14, 2019 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991 If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Kathie Evans
Project Manager

October 15, 2019
Date

Date: 10/15/2019

Client: McCloskey Consultants

Project: Los Altos H.S.

Work Order: 1910130

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Tom McCloskey
McCloskey Consultants

Date Received: 10/14/19
Date Reported: 10/15/19

EX-A-SW-1 1910130-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Lead	SW6010B	1	0.12	3.0	19.8	mg/Kg
gamma-Chlordane	SW8081B	10	1.6	20	2.52	ug/Kg
alpha-Chlordane	SW8081B	10	1.7	20	2.08	ug/Kg
4,4'-DDE	SW8081B	10	1.9	20	6.31	ug/Kg
Dieldrin	SW8081B	10	1.5	20	54.2	ug/Kg
4,4'-DDT	SW8081B	10	1.3	20	17.0	ug/Kg

EX-A-SW-2 1910130-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Lead	SW6010B	1	0.12	3.0	15.8	mg/Kg
4,4'-DDE	SW8081B	10	1.9	20	29.6	ug/Kg
Dieldrin	SW8081B	10	1.5	20	4.23	ug/Kg
4,4'-DDT	SW8081B	10	1.3	20	5.04	ug/Kg

EX-A-SW-3 1910130-003

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Lead	SW6010B	1	0.12	3.0	22.7	mg/Kg
4,4'-DDE	SW8081B	10	1.9	20	80.8	ug/Kg
Dieldrin	SW8081B	10	1.5	20	1.87	ug/Kg
4,4'-DDT	SW8081B	10	1.3	20	8.85	ug/Kg

EX-A-SW-4 1910130-004

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Lead	SW6010B	1	0.12	3.0	22.4	mg/Kg
4,4'-DDE	SW8081B	10	1.9	20	67.0	ug/Kg
Dieldrin	SW8081B	10	1.5	20	8.17	ug/Kg
4,4'-DDT	SW8081B	10	1.3	20	13.8	ug/Kg

EX-A-B-1A@1 1/2' 1910130-005

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Lead	SW6010B	1	0.12	3.0	20.8	mg/Kg
4,4'-DDE	SW8081B	10	1.9	20	49.3	ug/Kg
Dieldrin	SW8081B	10	1.5	20	21.2	ug/Kg
4,4'-DDT	SW8081B	10	1.3	20	18.7	ug/Kg

Sample Result Summary

Report prepared for: Tom McCloskey
McCloskey Consultants

Date Received: 10/14/19
Date Reported: 10/15/19

EX-A-B-1B@1 1/2' 1910130-006

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Lead	SW6010B	1	0.12	3.0	22.3	mg/Kg
4,4'-DDE	SW8081B	10	1.9	20	39.4	ug/Kg
Dieldrin	SW8081B	10	1.5	20	13.7	ug/Kg
4,4'-DDT	SW8081B	10	1.3	20	14.6	ug/Kg

EX-A-B-2 1910130-007

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Lead	SW6010B	1	0.12	3.0	23.9	mg/Kg
4,4'-DDE	SW8081B	10	1.9	20	28.6	ug/Kg
Dieldrin	SW8081B	10	1.5	20	13.2	ug/Kg
4,4'-DDT	SW8081B	10	1.3	20	32.4	ug/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/14/19, 3:00 pm
Date Reported: 10/15/19

Client Sample ID:	EX-A-SW-1	**Lab Sample ID:**	1910130-001A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/14/19 / 13:40		
SDG:			

Prep Method: 3050B **Prep Batch Date/Time:** 10/14/19 4:40:00PM
Prep Batch ID: 1117395 **Prep Analyst:** IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Lead	SW6010B	1	0.12	3.0	**19.8**		mg/Kg	10/15/19	12:25	PPATEL	443128

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/14/19 12:23:00PM
Prep Batch ID: 1117370 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081B	10	1.3	20	ND		ug/Kg	10/14/19	20:12	LA	443118
gamma-BHC (Lindane)	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	20:12	LA	443118
beta-BHC	SW8081B	10	3.2	20	ND		ug/Kg	10/14/19	20:12	LA	443118
delta-BHC	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	20:12	LA	443118
Heptachlor	SW8081B	10	1.1	20	ND		ug/Kg	10/14/19	20:12	LA	443118
Aldrin	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	20:12	LA	443118
Heptachlor Epoxide	SW8081B	10	0.78	20	ND		ug/Kg	10/14/19	20:12	LA	443118
gamma-Chlordane	SW8081B	10	1.6	20	**2.52**	J	ug/Kg	10/14/19	20:12	LA	443118
alpha-Chlordane	SW8081B	10	1.7	20	**2.08**	J	ug/Kg	10/14/19	20:12	LA	443118
4,4'-DDE	SW8081B	10	1.9	20	**6.31**	J	ug/Kg	10/14/19	20:12	LA	443118
Endosulfan I	SW8081B	10	1.8	20	ND		ug/Kg	10/14/19	20:12	LA	443118
Dieldrin	SW8081B	10	1.5	20	**54.2**		ug/Kg	10/14/19	20:12	LA	443118
Endrin	SW8081B	10	1.9	20	ND		ug/Kg	10/14/19	20:12	LA	443118
4,4'-DDD	SW8081B	10	5.7	20	ND		ug/Kg	10/14/19	20:12	LA	443118
Endosulfan II	SW8081B	10	5.8	20	ND		ug/Kg	10/14/19	20:12	LA	443118
4,4'-DDT	SW8081B	10	1.3	20	**17.0**	J	ug/Kg	10/14/19	20:12	LA	443118
Endrin Aldehyde	SW8081B	10	1.5	20	ND		ug/Kg	10/14/19	20:12	LA	443118
Methoxychlor	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	20:12	LA	443118
Endosulfan Sulfate	SW8081B	10	1.2	20	ND		ug/Kg	10/14/19	20:12	LA	443118
Endrin Ketone	SW8081B	10	0.94	20	ND		ug/Kg	10/14/19	20:12	LA	443118
Chlordane	SW8081B	10	21	200	ND		ug/Kg	10/14/19	20:12	LA	443118
Toxaphene	SW8081B	10	85	500	ND		ug/Kg	10/14/19	20:12	LA	443118
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**89.3**		%	10/14/19	20:12	LA	443118
DCBP (S)	SW8081B		38 - 135		**92.6**		%	10/14/19	20:12	LA	443118

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/14/19, 3:00 pm
Date Reported: 10/15/19

Client Sample ID:	EX-A-SW-2	**Lab Sample ID:**	1910130-002A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/14/19 / 13:42		
SDG:			

Prep Method: 3050B **Prep Batch Date/Time:** 10/14/19 4:40:00PM
Prep Batch ID: 1117395 **Prep Analyst:** IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Lead	SW6010B	1	0.12	3.0	**15.8**		mg/Kg	10/15/19	12:35	PPATEL	443128

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/14/19 12:23:00PM
Prep Batch ID: 1117370 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081B	10	1.3	20	ND		ug/Kg	10/14/19	20:25	LA	443118
gamma-BHC (Lindane)	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	20:25	LA	443118
beta-BHC	SW8081B	10	3.2	20	ND		ug/Kg	10/14/19	20:25	LA	443118
delta-BHC	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	20:25	LA	443118
Heptachlor	SW8081B	10	1.1	20	ND		ug/Kg	10/14/19	20:25	LA	443118
Aldrin	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	20:25	LA	443118
Heptachlor Epoxide	SW8081B	10	0.78	20	ND		ug/Kg	10/14/19	20:25	LA	443118
gamma-Chlordane	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	20:25	LA	443118
alpha-Chlordane	SW8081B	10	1.7	20	ND		ug/Kg	10/14/19	20:25	LA	443118
4,4'-DDE	SW8081B	10	1.9	20	**29.6**		ug/Kg	10/14/19	20:25	LA	443118
Endosulfan I	SW8081B	10	1.8	20	ND		ug/Kg	10/14/19	20:25	LA	443118
Dieldrin	SW8081B	10	1.5	20	**4.23**	J	ug/Kg	10/14/19	20:25	LA	443118
Endrin	SW8081B	10	1.9	20	ND		ug/Kg	10/14/19	20:25	LA	443118
4,4'-DDD	SW8081B	10	5.7	20	ND		ug/Kg	10/14/19	20:25	LA	443118
Endosulfan II	SW8081B	10	5.8	20	ND		ug/Kg	10/14/19	20:25	LA	443118
4,4'-DDT	SW8081B	10	1.3	20	**5.04**	J	ug/Kg	10/14/19	20:25	LA	443118
Endrin Aldehyde	SW8081B	10	1.5	20	ND		ug/Kg	10/14/19	20:25	LA	443118
Methoxychlor	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	20:25	LA	443118
Endosulfan Sulfate	SW8081B	10	1.2	20	ND		ug/Kg	10/14/19	20:25	LA	443118
Endrin Ketone	SW8081B	10	0.94	20	ND		ug/Kg	10/14/19	20:25	LA	443118
Chlordane	SW8081B	10	21	200	ND		ug/Kg	10/14/19	20:25	LA	443118
Toxaphene	SW8081B	10	85	500	ND		ug/Kg	10/14/19	20:25	LA	443118
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**93.5**		%	10/14/19	20:25	LA	443118
DCBP (S)	SW8081B		38 - 135		**96.5**		%	10/14/19	20:25	LA	443118

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/14/19, 3:00 pm
Date Reported: 10/15/19

Client Sample ID:	EX-A-SW-3	**Lab Sample ID:**	1910130-003A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/14/19 / 13:59		
SDG:			

Prep Method: 3050B **Prep Batch Date/Time:** 10/14/19 4:40:00PM
Prep Batch ID: 1117395 **Prep Analyst:** IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Lead	SW6010B	1	0.12	3.0	**22.7**		mg/Kg	10/15/19	12:38	PPATEL	443128

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/14/19 12:23:00PM
Prep Batch ID: 1117370 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081B	10	1.3	20	ND		ug/Kg	10/14/19	20:38	LA	443118
gamma-BHC (Lindane)	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	20:38	LA	443118
beta-BHC	SW8081B	10	3.2	20	ND		ug/Kg	10/14/19	20:38	LA	443118
delta-BHC	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	20:38	LA	443118
Heptachlor	SW8081B	10	1.1	20	ND		ug/Kg	10/14/19	20:38	LA	443118
Aldrin	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	20:38	LA	443118
Heptachlor Epoxide	SW8081B	10	0.78	20	ND		ug/Kg	10/14/19	20:38	LA	443118
gamma-Chlordane	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	20:38	LA	443118
alpha-Chlordane	SW8081B	10	1.7	20	ND		ug/Kg	10/14/19	20:38	LA	443118
4,4'-DDE	SW8081B	10	1.9	20	**80.8**		ug/Kg	10/14/19	20:38	LA	443118
Endosulfan I	SW8081B	10	1.8	20	ND		ug/Kg	10/14/19	20:38	LA	443118
Dieldrin	SW8081B	10	1.5	20	**1.87**	J	ug/Kg	10/14/19	20:38	LA	443118
Endrin	SW8081B	10	1.9	20	ND		ug/Kg	10/14/19	20:38	LA	443118
4,4'-DDD	SW8081B	10	5.7	20	ND		ug/Kg	10/14/19	20:38	LA	443118
Endosulfan II	SW8081B	10	5.8	20	ND		ug/Kg	10/14/19	20:38	LA	443118
4,4'-DDT	SW8081B	10	1.3	20	**8.85**	J	ug/Kg	10/14/19	20:38	LA	443118
Endrin Aldehyde	SW8081B	10	1.5	20	ND		ug/Kg	10/14/19	20:38	LA	443118
Methoxychlor	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	20:38	LA	443118
Endosulfan Sulfate	SW8081B	10	1.2	20	ND		ug/Kg	10/14/19	20:38	LA	443118
Endrin Ketone	SW8081B	10	0.94	20	ND		ug/Kg	10/14/19	20:38	LA	443118
Chlordane	SW8081B	10	21	200	ND		ug/Kg	10/14/19	20:38	LA	443118
Toxaphene	SW8081B	10	85	500	ND		ug/Kg	10/14/19	20:38	LA	443118
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**96.9**		%	10/14/19	20:38	LA	443118
DCBP (S)	SW8081B		38 - 135		**99.2**		%	10/14/19	20:38	LA	443118

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/14/19, 3:00 pm
Date Reported: 10/15/19

Client Sample ID:	EX-A-SW-4	**Lab Sample ID:**	1910130-004A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/14/19 / 14:15		
SDG:			

Prep Method: 3050B **Prep Batch Date/Time:** 10/14/19 4:40:00PM
Prep Batch ID: 1117395 **Prep Analyst:** IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Lead	SW6010B	1	0.12	3.0	**22.4**		mg/Kg	10/15/19	12:41	PPATEL	443128

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/14/19 12:23:00PM
Prep Batch ID: 1117370 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081B	10	1.3	20	ND		ug/Kg	10/14/19	20:52	LA	443118
gamma-BHC (Lindane)	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	20:52	LA	443118
beta-BHC	SW8081B	10	3.2	20	ND		ug/Kg	10/14/19	20:52	LA	443118
delta-BHC	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	20:52	LA	443118
Heptachlor	SW8081B	10	1.1	20	ND		ug/Kg	10/14/19	20:52	LA	443118
Aldrin	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	20:52	LA	443118
Heptachlor Epoxide	SW8081B	10	0.78	20	ND		ug/Kg	10/14/19	20:52	LA	443118
gamma-Chlordane	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	20:52	LA	443118
alpha-Chlordane	SW8081B	10	1.7	20	ND		ug/Kg	10/14/19	20:52	LA	443118
4,4'-DDE	SW8081B	10	1.9	20	**67.0**		ug/Kg	10/14/19	20:52	LA	443118
Endosulfan I	SW8081B	10	1.8	20	ND		ug/Kg	10/14/19	20:52	LA	443118
Dieldrin	SW8081B	10	1.5	20	**8.17**	J	ug/Kg	10/14/19	20:52	LA	443118
Endrin	SW8081B	10	1.9	20	ND		ug/Kg	10/14/19	20:52	LA	443118
4,4'-DDD	SW8081B	10	5.7	20	ND		ug/Kg	10/14/19	20:52	LA	443118
Endosulfan II	SW8081B	10	5.8	20	ND		ug/Kg	10/14/19	20:52	LA	443118
4,4'-DDT	SW8081B	10	1.3	20	**13.8**	J	ug/Kg	10/14/19	20:52	LA	443118
Endrin Aldehyde	SW8081B	10	1.5	20	ND		ug/Kg	10/14/19	20:52	LA	443118
Methoxychlor	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	20:52	LA	443118
Endosulfan Sulfate	SW8081B	10	1.2	20	ND		ug/Kg	10/14/19	20:52	LA	443118
Endrin Ketone	SW8081B	10	0.94	20	ND		ug/Kg	10/14/19	20:52	LA	443118
Chlordane	SW8081B	10	21	200	ND		ug/Kg	10/14/19	20:52	LA	443118
Toxaphene	SW8081B	10	85	500	ND		ug/Kg	10/14/19	20:52	LA	443118
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**91.5**		%	10/14/19	20:52	LA	443118
DCBP (S)	SW8081B		38 - 135		**94.3**		%	10/14/19	20:52	LA	443118

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/14/19, 3:00 pm
Date Reported: 10/15/19

Client Sample ID:	EX-A-B-1A@1 1/2'	**Lab Sample ID:**	1910130-005A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/14/19 / 13:45		
SDG:			

Prep Method: 3050B **Prep Batch Date/Time:** 10/14/19 4:40:00PM
Prep Batch ID: 1117395 **Prep Analyst:** IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Lead	SW6010B	1	0.12	3.0	**20.8**		mg/Kg	10/15/19	12:44	PPATEL	443128

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/14/19 12:23:00PM
Prep Batch ID: 1117370 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081B	10	1.3	20	ND		ug/Kg	10/14/19	21:05	LA	443118
gamma-BHC (Lindane)	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	21:05	LA	443118
beta-BHC	SW8081B	10	3.2	20	ND		ug/Kg	10/14/19	21:05	LA	443118
delta-BHC	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	21:05	LA	443118
Heptachlor	SW8081B	10	1.1	20	ND		ug/Kg	10/14/19	21:05	LA	443118
Aldrin	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	21:05	LA	443118
Heptachlor Epoxide	SW8081B	10	0.78	20	ND		ug/Kg	10/14/19	21:05	LA	443118
gamma-Chlordane	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	21:05	LA	443118
alpha-Chlordane	SW8081B	10	1.7	20	ND		ug/Kg	10/14/19	21:05	LA	443118
4,4'-DDE	SW8081B	10	1.9	20	**49.3**		ug/Kg	10/14/19	21:05	LA	443118
Endosulfan I	SW8081B	10	1.8	20	ND		ug/Kg	10/14/19	21:05	LA	443118
Dieldrin	SW8081B	10	1.5	20	**21.2**		ug/Kg	10/14/19	21:05	LA	443118
Endrin	SW8081B	10	1.9	20	ND		ug/Kg	10/14/19	21:05	LA	443118
4,4'-DDD	SW8081B	10	5.7	20	ND		ug/Kg	10/14/19	21:05	LA	443118
Endosulfan II	SW8081B	10	5.8	20	ND		ug/Kg	10/14/19	21:05	LA	443118
4,4'-DDT	SW8081B	10	1.3	20	**18.7**	J	ug/Kg	10/14/19	21:05	LA	443118
Endrin Aldehyde	SW8081B	10	1.5	20	ND		ug/Kg	10/14/19	21:05	LA	443118
Methoxychlor	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	21:05	LA	443118
Endosulfan Sulfate	SW8081B	10	1.2	20	ND		ug/Kg	10/14/19	21:05	LA	443118
Endrin Ketone	SW8081B	10	0.94	20	ND		ug/Kg	10/14/19	21:05	LA	443118
Chlordane	SW8081B	10	21	200	ND		ug/Kg	10/14/19	21:05	LA	443118
Toxaphene	SW8081B	10	85	500	ND		ug/Kg	10/14/19	21:05	LA	443118
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**95.5**		%	10/14/19	21:05	LA	443118
DCBP (S)	SW8081B		38 - 135		**97.3**		%	10/14/19	21:05	LA	443118

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/14/19, 3:00 pm
Date Reported: 10/15/19

Client Sample ID:	EX-A-B-1B@1 1/2'	**Lab Sample ID:**	1910130-006A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/14/19 / 13:47		
SDG:			

Prep Method: 3050B **Prep Batch Date/Time:** 10/14/19 4:40:00PM
Prep Batch ID: 1117395 **Prep Analyst:** IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Lead	SW6010B	1	0.12	3.0	**22.3**		mg/Kg	10/15/19	12:48	PPATEL	443128

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/14/19 12:23:00PM
Prep Batch ID: 1117370 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081B	10	1.3	20	ND		ug/Kg	10/14/19	21:19	LA	443118
gamma-BHC (Lindane)	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	21:19	LA	443118
beta-BHC	SW8081B	10	3.2	20	ND		ug/Kg	10/14/19	21:19	LA	443118
delta-BHC	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	21:19	LA	443118
Heptachlor	SW8081B	10	1.1	20	ND		ug/Kg	10/14/19	21:19	LA	443118
Aldrin	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	21:19	LA	443118
Heptachlor Epoxide	SW8081B	10	0.78	20	ND		ug/Kg	10/14/19	21:19	LA	443118
gamma-Chlordane	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	21:19	LA	443118
alpha-Chlordane	SW8081B	10	1.7	20	ND		ug/Kg	10/14/19	21:19	LA	443118
4,4'-DDE	SW8081B	10	1.9	20	**39.4**		ug/Kg	10/14/19	21:19	LA	443118
Endosulfan I	SW8081B	10	1.8	20	ND		ug/Kg	10/14/19	21:19	LA	443118
Dieldrin	SW8081B	10	1.5	20	**13.7**	J	ug/Kg	10/14/19	21:19	LA	443118
Endrin	SW8081B	10	1.9	20	ND		ug/Kg	10/14/19	21:19	LA	443118
4,4'-DDD	SW8081B	10	5.7	20	ND		ug/Kg	10/14/19	21:19	LA	443118
Endosulfan II	SW8081B	10	5.8	20	ND		ug/Kg	10/14/19	21:19	LA	443118
4,4'-DDT	SW8081B	10	1.3	20	**14.6**	J	ug/Kg	10/14/19	21:19	LA	443118
Endrin Aldehyde	SW8081B	10	1.5	20	ND		ug/Kg	10/14/19	21:19	LA	443118
Methoxychlor	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	21:19	LA	443118
Endosulfan Sulfate	SW8081B	10	1.2	20	ND		ug/Kg	10/14/19	21:19	LA	443118
Endrin Ketone	SW8081B	10	0.94	20	ND		ug/Kg	10/14/19	21:19	LA	443118
Chlordane	SW8081B	10	21	200	ND		ug/Kg	10/14/19	21:19	LA	443118
Toxaphene	SW8081B	10	85	500	ND		ug/Kg	10/14/19	21:19	LA	443118
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**84.0**		%	10/14/19	21:19	LA	443118
DCBP (S)	SW8081B		38 - 135		**87.5**		%	10/14/19	21:19	LA	443118

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/14/19, 3:00 pm
Date Reported: 10/15/19

Client Sample ID:	EX-A-B-2	**Lab Sample ID:**	1910130-007A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/14/19 / 14:02		
SDG:			

Prep Method: 3050B **Prep Batch Date/Time:** 10/14/19 4:40:00PM
Prep Batch ID: 1117395 **Prep Analyst:** IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Lead	SW6010B	1	0.12	3.0	**23.9**		mg/Kg	10/15/19	12:51	PPATEL	443128

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/14/19 12:23:00PM
Prep Batch ID: 1117370 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081B	10	1.3	20	ND		ug/Kg	10/14/19	21:54	LA	443118
gamma-BHC (Lindane)	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	21:54	LA	443118
beta-BHC	SW8081B	10	3.2	20	ND		ug/Kg	10/14/19	21:54	LA	443118
delta-BHC	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	21:54	LA	443118
Heptachlor	SW8081B	10	1.1	20	ND		ug/Kg	10/14/19	21:54	LA	443118
Aldrin	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	21:54	LA	443118
Heptachlor Epoxide	SW8081B	10	0.78	20	ND		ug/Kg	10/14/19	21:54	LA	443118
gamma-Chlordane	SW8081B	10	1.6	20	ND		ug/Kg	10/14/19	21:54	LA	443118
alpha-Chlordane	SW8081B	10	1.7	20	ND		ug/Kg	10/14/19	21:54	LA	443118
4,4'-DDE	SW8081B	10	1.9	20	**28.6**		ug/Kg	10/14/19	21:54	LA	443118
Endosulfan I	SW8081B	10	1.8	20	ND		ug/Kg	10/14/19	21:54	LA	443118
Dieldrin	SW8081B	10	1.5	20	**13.2**	J	ug/Kg	10/14/19	21:54	LA	443118
Endrin	SW8081B	10	1.9	20	ND		ug/Kg	10/14/19	21:54	LA	443118
4,4'-DDD	SW8081B	10	5.7	20	ND		ug/Kg	10/14/19	21:54	LA	443118
Endosulfan II	SW8081B	10	5.8	20	ND		ug/Kg	10/14/19	21:54	LA	443118
4,4'-DDT	SW8081B	10	1.3	20	**32.4**		ug/Kg	10/14/19	21:54	LA	443118
Endrin Aldehyde	SW8081B	10	1.5	20	ND		ug/Kg	10/14/19	21:54	LA	443118
Methoxychlor	SW8081B	10	2.0	20	ND		ug/Kg	10/14/19	21:54	LA	443118
Endosulfan Sulfate	SW8081B	10	1.2	20	ND		ug/Kg	10/14/19	21:54	LA	443118
Endrin Ketone	SW8081B	10	0.94	20	ND		ug/Kg	10/14/19	21:54	LA	443118
Chlordane	SW8081B	10	21	200	ND		ug/Kg	10/14/19	21:54	LA	443118
Toxaphene	SW8081B	10	85	500	ND		ug/Kg	10/14/19	21:54	LA	443118
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**96.5**		%	10/14/19	21:54	LA	443118
DCBP (S)	SW8081B		38 - 135		**101**		%	10/14/19	21:54	LA	443118

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1910130	**Prep Method:**	3546_OCP	**Prep Date:**	10/14/19	**Prep Batch:**	1117370
Matrix:	Soil	**Analytical Method:**	SW8081B	**Analyzed Date:**	10/14/2019	**Analytical Batch:**	443118
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
alpha-BHC	0.13	2.0	ND	
gamma-BHC (Lindane)	0.16	2.0	ND	
beta-BHC	0.32	2.0	ND	
delta-BHC	0.16	2.0	ND	
Heptachlor	0.11	2.0	ND	
Aldrin	0.20	2.0	ND	
Heptachlor Epoxide	0.078	2.0	ND	
gamma-Chlordane	0.16	2.0	ND	
alpha-Chlordane	0.17	2.0	ND	
4,4'-DDE	0.19	2.0	ND	
Endosulfan I	0.18	2.0	ND	
Dieldrin	0.15	2.0	ND	
Endrin	0.19	2.0	ND	
4,4'-DDD	0.57	2.0	ND	
Endosulfan II	0.58	2.0	ND	
4,4'-DDT	0.13	2.0	ND	
Endrin Aldehyde	0.15	2.0	ND	
Methoxychlor	0.20	2.0	ND	
Endosulfan Sulfate	0.12	2.0	ND	
Endrin Ketone	0.094	2.0	ND	
Chlordane	2.1	20	ND	
Toxaphene	8.5	50	ND	
TCMX (S)			92.0	
DCBP (S)			104	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1910130	**Prep Method:**	3050B	**Prep Date:**	10/14/19	**Prep Batch:**	1117395
Matrix:	Soil	**Analytical Method:**	SW6010B	**Analyzed Date:**	10/15/2019	**Analytical Batch:**	443128
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Antimony	0.050	5.00	ND	
Arsenic	0.15	1.30	ND	
Barium	0.055	5.00	0.100	
Beryllium	0.055	5.00	ND	
Cadmium	0.10	5.00	ND	
Chromium	0.075	5.00	0.11	
Cobalt	0.070	5.00	ND	
Copper	0.20	5.00	ND	
Lead	0.10	1.30	ND	
Molybdenum	0.050	5.00	0.16	
Nickel	0.50	5.00	ND	
Selenium	0.22	5.00	ND	
Silver	0.15	5.00	ND	
Thallium	0.55	5.00	ND	
Vanadium	0.10	5.00	ND	
Zinc	0.30	5.00	ND	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1910130	**Prep Method:**	3546_OCP	**Prep Date:**	10/14/19	**Prep Batch:**	1117370
Matrix:	Soil	**Analytical Method:**	SW8081B	**Analyzed Date:**	10/14/2019	**Analytical Batch:**	443118
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC (Lindane)	0.16	2.0	ND	40	91.3	90.5	0.825	25 - 135	30	
Heptachlor	0.11	2.0	ND	40	90.3	89.7	0.556	40 - 130	30	
Aldrin	0.20	2.0	ND	40	91.3	90.0	1.38	25 - 140	30	
Dieldrin	0.15	2.0	ND	40	88.1	87.1	1.14	60 - 130	30	
Endrin	0.19	2.0	ND	40	84.4	83.7	0.595	55 - 135	30	
4,4'-DDT	0.13	2.0	ND	40	86.4	86.2	0.289	45 - 140	30	
TCMX (S)				100	91.0	88.8		48 - 125		
DCBP (S)				100	103	100		38 - 135		

Work Order:	1910130	**Prep Method:**	3050B	**Prep Date:**	10/14/19	**Prep Batch:**	1117395
Matrix:	Soil	**Analytical Method:**	SW6010B	**Analyzed Date:**	10/15/2019	**Analytical Batch:**	443128
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.050	5.00	ND	50	95.7	94.9	0.839	80 - 120	30	
Arsenic	0.15	1.30	ND	50	96.2	95.6	0.626	80 - 120	30	
Barium	0.055	5.00	0.100	50	98.7	96.6	2.25	80 - 120	30	
Beryllium	0.055	5.00	ND	50	101	99.0	2.00	80 - 120	30	
Cadmium	0.10	5.00	ND	50	100	97.6	2.43	80 - 120	30	
Chromium	0.075	5.00	0.11	50	102	98.4	3.59	80 - 120	30	
Cobalt	0.070	5.00	ND	50	101	97.9	3.02	80 - 120	30	
Copper	0.20	5.00	ND	50	99.2	96.8	2.45	80 - 120	30	
Lead	0.10	3.00	ND	50	101	99.0	2.00	80 - 120	30	
Molybdenum	0.050	5.00	0.16	50	102	98.6	3.39	80 - 120	30	
Nickel	0.50	5.00	ND	50	100	97.6	2.43	80 - 120	30	
Selenium	0.22	5.00	ND	50	92.1	91.6	0.653	80 - 120	30	
Silver	0.15	5.00	ND	50	96.1	94.9	1.26	80 - 120	30	
Thallium	0.20	5.00	ND	50	96.6	95.8	0.832	80 - 120	30	
Vanadium	0.10	5.00	ND	50	102	98.2	3.80	80 - 120	30	
Zinc	0.30	5.00	ND	50	96.9	95.1	1.87	80 - 120	30	

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: McCloskey Consultants

Project Name: Los Altos H.S.

Work Order No.: 1910130

Date and Time Received: 10/14/2019 3:00:00PM

Received By: Helena Ueng

Physically Logged By: Helena Ueng

Checklist Completed By: Helena Ueng

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes
Container/Temp Blank temperature in compliance?	Temperature: 8.0 °C
Water-VOA vials have zero headspace?	No VOA vials submitted
Water-pH acceptable upon receipt?	N/A

pH Checked by: N/A

pH Adjusted by: N/A

Comments:

Sample chilling begun

Login Summary Report

Client ID: TL5324 McCloskey Consultants
Project Name: Los Altos H.S.
Project # :
Report Due Date: 10/15/2019
QC Level: II
TAT Requested: 1 Day Rush:1
Date Received: 10/14/2019
Time Received: 3:00 pm

Comments:

Work Order # : ***1910130***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
1910130-001A	EX-A-SW-1	10/14/19 13:40	Soil	04/11/20			Pest_S_8081OCP Met_S_AsPb	
Sample Note:	*1-DAY RUSH! OCPs, Lead							
1910130-002A	EX-A-SW-2	10/14/19 13:42	Soil	04/11/20			Met_S_AsPb Pest_S_8081OCP	
1910130-003A	EX-A-SW-3	10/14/19 13:59	Soil	04/11/20			Met_S_AsPb Pest_S_8081OCP	
1910130-004A	EX-A-SW-4	10/14/19 14:15	Soil	04/11/20			Met_S_AsPb Pest_S_8081OCP	
1910130-005A	EX-A-B-1A@1 1/2'	10/14/19 13:45	Soil	04/11/20			Met_S_AsPb Pest_S_8081OCP	
1910130-006A	EX-A-B-1B@1 1/2'	10/14/19 13:47	Soil	04/11/20			Met_S_AsPb Pest_S_8081OCP	
1910130-007A	EX-A-B-2	10/14/19 14:02	Soil	04/11/20			Met_S_AsPb Pest_S_8081OCP	

Torrent LABORATORY, INC.

Torrent LABORATORY, INC.
483 Sinclair Frontage Road
Milpitas, CA 95035
Phone: 408.263.5258
FAX: 408.263.8293
www.torrentlab.com

CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO: 1910130

Company Name: MCI - McCloskey | ☒ Env. ☐ DOD ☐ Food ☐ Special | Project Name: Los Altos H.S.

Address: 420 Sycamore Valley Rd West | Project #

City: Danville | State: CA | Zip Code: 94526 | Comments:

Telephone: | Cell: 925.786.2667 | Email:

REPORT TO: Tom McCloskey/Chris Vertin | SAMPLER: Chris Vertin | P.O. # | QUOTE #

TURNAROUND TIME:
☐ 10 Work Days ☐ 4 Work Days ☒ 1 Work Day
☐ 7 Work Days ☐ 3 Work Days ☐ Noon - Nxt Day
☐ 5 Work Days ☐ 2 Work Days ☐ 2 - 8 Hours

SAMPLE TYPE:
☐ Storm Water ☐ Air
☐ Waste Water ☐ Wipe
☐ Ground Water ☐ Other
☒ Soil

REPORT FORMAT:
☐ Excel/ EDD
☐ EDF
☐ QC Level III
☐ QC Level IV

ANALYSIS REQUESTED

LAB ID	CANISTER I.D.	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	PRES.	OCPs	Lead	REMARKS
001A		EX-A-SW-1	10.14.19 13:40	Soil	1	4oz glass Jar		X	X	
002A		EX-A-SW-2	13:42							
003A		EX-A-SW-3	13:59							
004A		EX-A-SW-4	14:15							
005A		EX-A-B-1A@	13:45							
006A		EX-A-B-1B@	13:47							
007A		EX-A-B-2	14:02							

RUSH
1-DAY

	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1		Chris Vertin	10/14/19	15:00			10/14/19	1500
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? ☒ Yes ☐ NO Samples on Ice? ☒ Yes ☐ NO Method of Shipment: D/O Sample seals intact? ☐ Yes ☐ NO ☒ N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Temp. Gun # 2 Temp 8 °C Page 1 of 1

Log In By: Date: Labeled By: Date: Log In Reviewed By: Date:

Rev 3.

Tom McCloskey
McCloskey Consultants
420 Sycamore Valley Road West
Danville, California 94526
Tel: 925 786 2667
Email: tom@mccloskeyconsultants.com

RE: Los Altos H.S.

Work Order No.: 1910131

Dear Tom McCloskey:

Torrent Laboratory, Inc. received 4 sample(s) on October 14, 2019 for the analyses presented in the following Report.

As requested on the Chain of Custody, the four samples received were combined into a 4:1 point composite for analysis.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991 If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Kathie Evans
Project Manager

October 16, 2019
Date

Date: 10/16/2019

Client: McCloskey Consultants

Project: Los Altos H.S.

Work Order: 1910131

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

All analyses except for TCLP lead were cancelled by the client the day after sample receipt. Accordingly, pesticide and CAM17 metals data is not presented in this report. As analyses had already been done, data is available upon client request and associated QC data appears in the report.

TCLP

Note: Extraction of 100 g sample/2000 g TCLP Fluid #1 was performed according to Toxicity Characteristic Leaching Procedure (SW-846 1311 TCLP) which was rotated in a rotary shaker@ 32 RPM for 18 hours (+/- 2 hours).

Date Prepared: 10/15/19 at 4:00 PM to 10/16/19 at 10:30 AM

Sample Result Summary

Report prepared for: Tom McCloskey
McCloskey Consultants

Date Received: 10/14/19
Date Reported: 10/16/19

EX-A-SP-1 Composite 1910131-005

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit

All compounds were non-detectable for this sample.

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/14/19, 3:00 pm
Date Reported: 10/16/19

Client Sample ID:	EX-A-SP-1 Composite	**Lab Sample ID:**	1910131-005A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/14/19 /		
SDG:			

Prep Method:	1311/3010B	**Prep Batch Date/Time:**	10/16/19 11:20:00AM
Prep Batch ID:	1117445	**Prep Analyst:**	IRNAZ

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Lead (TCLP)	SW6010B	1	0.050	0.20	ND		mg/L	10/16/19	15:22	PPATEL	443168

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1910131	**Prep Method:**	3546_OCP	**Prep Date:**	10/14/19	**Prep Batch:**	1117370
Matrix:	Soil	**Analytical Method:**	SW8081B	**Analyzed Date:**	10/14/2019	**Analytical Batch:**	443118
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
alpha-BHC	0.13	2.0	ND	
gamma-BHC (Lindane)	0.16	2.0	ND	
beta-BHC	0.32	2.0	ND	
delta-BHC	0.16	2.0	ND	
Heptachlor	0.11	2.0	ND	
Aldrin	0.20	2.0	ND	
Heptachlor Epoxide	0.078	2.0	ND	
gamma-Chlordane	0.16	2.0	ND	
alpha-Chlordane	0.17	2.0	ND	
4,4'-DDE	0.19	2.0	ND	
Endosulfan I	0.18	2.0	ND	
Dieldrin	0.15	2.0	ND	
Endrin	0.19	2.0	ND	
4,4'-DDD	0.57	2.0	ND	
Endosulfan II	0.58	2.0	ND	
4,4'-DDT	0.13	2.0	ND	
Endrin Aldehyde	0.15	2.0	ND	
Methoxychlor	0.20	2.0	ND	
Endosulfan Sulfate	0.12	2.0	ND	
Endrin Ketone	0.094	2.0	ND	
Chlordane	2.1	20	ND	
Toxaphene	8.5	50	ND	
TCMX (S)			92.0	
DCBP (S)			104	

Work Order:	1910131	**Prep Method:**	7471BP	**Prep Date:**	10/14/19	**Prep Batch:**	1117392
Matrix:	Soil	**Analytical Method:**	SW7471B	**Analyzed Date:**	10/15/2019	**Analytical Batch:**	443121
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Mercury	0.083	0.50	ND	

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1910131	**Prep Method:**	3050B	**Prep Date:**	10/14/19	**Prep Batch:**	1117395
Matrix:	Soil	**Analytical Method:**	SW6010B	**Analyzed Date:**	10/15/2019	**Analytical Batch:**	443128
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Antimony	0.050	5.00	ND	
Arsenic	0.15	1.30	ND	
Barium	0.055	5.00	0.100	
Beryllium	0.055	5.00	ND	
Cadmium	0.10	5.00	ND	
Chromium	0.075	5.00	0.11	
Cobalt	0.070	5.00	ND	
Copper	0.20	5.00	ND	
Lead	0.10	1.30	ND	
Molybdenum	0.050	5.00	0.16	
Nickel	0.50	5.00	ND	
Selenium	0.22	5.00	ND	
Silver	0.15	5.00	ND	
Thallium	0.55	5.00	ND	
Vanadium	0.10	5.00	ND	
Zinc	0.30	5.00	ND	

Work Order:	1910131	**Prep Method:**	1311/3010B	**Prep Date:**	10/16/19	**Prep Batch:**	1117445
Matrix:	Soil	**Analytical Method:**	SW6010B	**Analyzed Date:**	10/16/2019	**Analytical Batch:**	443168
Units:	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
Chromium (TCLP)	0.010	0.20	ND	
Lead (TCLP)	0.050	0.20	ND	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1910131	**Prep Method:**	3546_OCP	**Prep Date:**	10/14/19	**Prep Batch:**	1117370
Matrix:	Soil	**Analytical Method:**	SW8081B	**Analyzed Date:**	10/14/2019	**Analytical Batch:**	443118
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC (Lindane)	0.16	2.0	ND	40	91.3	90.5	0.825	25 - 135	30	
Heptachlor	0.11	2.0	ND	40	90.3	89.7	0.556	40 - 130	30	
Aldrin	0.20	2.0	ND	40	91.3	90.0	1.38	25 - 140	30	
Dieldrin	0.15	2.0	ND	40	88.1	87.1	1.14	60 - 130	30	
Endrin	0.19	2.0	ND	40	84.4	83.7	0.595	55 - 135	30	
4,4'-DDT	0.13	2.0	ND	40	86.4	86.2	0.289	45 - 140	30	
TCMX (S)				100	91.0	88.8		48 - 125		
DCBP (S)				100	103	100		38 - 135		

Work Order:	1910131	**Prep Method:**	7471BP	**Prep Date:**	10/14/19	**Prep Batch:**	1117392
Matrix:	Soil	**Analytical Method:**	SW7471B	**Analyzed Date:**	10/15/2019	**Analytical Batch:**	443121
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Mercury	0.047	0.50	ND	1.25	97.2	95.4	2.49	80 - 120	30	

Work Order:	1910131	**Prep Method:**	3050B	**Prep Date:**	10/14/19	**Prep Batch:**	1117395
Matrix:	Soil	**Analytical Method:**	SW6010B	**Analyzed Date:**	10/15/2019	**Analytical Batch:**	443128
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Antimony	0.050	5.00	ND	50	95.7	94.9	0.839	80 - 120	30	
Arsenic	0.15	1.30	ND	50	96.2	95.6	0.626	80 - 120	30	
Barium	0.055	5.00	0.100	50	98.7	96.6	2.25	80 - 120	30	
Beryllium	0.055	5.00	ND	50	101	99.0	2.00	80 - 120	30	
Cadmium	0.10	5.00	ND	50	100	97.6	2.43	80 - 120	30	
Chromium	0.075	5.00	0.11	50	102	98.4	3.59	80 - 120	30	
Cobalt	0.070	5.00	ND	50	101	97.9	3.02	80 - 120	30	
Copper	0.20	5.00	ND	50	99.2	96.8	2.45	80 - 120	30	
Lead	0.10	3.00	ND	50	101	99.0	2.00	80 - 120	30	
Molybdenum	0.050	5.00	0.16	50	102	98.6	3.39	80 - 120	30	
Nickel	0.50	5.00	ND	50	100	97.6	2.43	80 - 120	30	
Selenium	0.22	5.00	ND	50	92.1	91.6	0.653	80 - 120	30	
Silver	0.15	5.00	ND	50	96.1	94.9	1.26	80 - 120	30	
Thallium	0.20	5.00	ND	50	96.6	95.8	0.832	80 - 120	30	
Vanadium	0.10	5.00	ND	50	102	98.2	3.80	80 - 120	30	
Zinc	0.30	5.00	ND	50	96.9	95.1	1.87	80 - 120	30	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1910131	**Prep Method:**	1311/3010B	**Prep Date:**	10/16/19	**Prep Batch:**	1117445
Matrix:	Soil	**Analytical Method:**	SW6010B	**Analyzed Date:**	10/16/2019	**Analytical Batch:**	443168
Units:	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Chromium (TCLP)	0.010	0.20	ND	10	90.5	92.0	1.64	80 - 120	20	
Lead (TCLP)	0.050	0.20	ND	10	91.1	93.4	2.49	80 - 120	20	

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: McCloskey Consultants

Project Name: Los Altos H.S.

Work Order No.: 1910131

Date and Time Received: 10/14/2019 3:00:00PM

Received By: Helena Ueng

Physically Logged By: Helena Ueng

Checklist Completed By: Helena Ueng

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes
Container/Temp Blank temperature in compliance?	Temperature: 8.0 °C
Water-VOA vials have zero headspace?	No VOA vials submitted
Water-pH acceptable upon receipt?	N/A

pH Checked by: N/A

pH Adjusted by: N/A

Comments:

Sample chilling begun

Login Summary Report

Client ID: TL5324 McCloskey Consultants
Project Name: Los Altos H.S.
Project # :
Report Due Date: 10/16/2019

QC Level: II
TAT Requested: 1 Day Rush:1
Date Received: 10/14/2019
Time Received: 3:00 pm

Comments:

Work Order # : ***1910131***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
1910131-001A	EX-A-SP-1A	10/14/19 14:05	Soil	04/11/20			Composite	
1910131-002A	EX-A-SP-1B	10/14/19 14:07	Soil	04/11/20			Composite	
1910131-003A	EX-A-SP-1C	10/14/19 14:08	Soil	04/11/20			Composite	
1910131-004A	EX-A-SP-1D	10/14/19 14:10	Soil	04/11/20			Composite	
1910131-005A	EX-A-SP-1 Composite	10/14/19	Soil	04/11/20			Pest_S_8081OCP Hg_S_7471B Met_S_6010B CAM17 Met_S_CAM17TCLP	

Sample Note: *1-DAY RUSH! OCPs; CAM17; STLC & TCLP Lead

Torrent LABORATORY, INC.

Torrent LABORATORY, INC.
483 Sinclair Frontage Road
Milpitas, CA 95035
Phone: 408.263.5258
FAX: 408.263.8293
www.torrentlab.com

CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO: 1910131

Company Name: MCI. | ☒ Env. ☐ DOD ☐ Food ☐ Special | Project Name: Los Altos H.S.

Address: 420 Sycamore Valley Rd West | Project #

City: Danville | State: CA | Zip Code: 94526 | Comments: 4-pt composite Sample

Telephone: | Cell: 925.786.2667 | Email:

REPORT TO: Tom McCloskey/Chris Vertin | SAMPLER: Chris Vertin | P.O. # | QUOTE #

TURNAROUND TIME:
☐ 10 Work Days ☐ 4 Work Days ☒ 1 Work Day
☐ 7 Work Days ☐ 3 Work Days ☐ Noon - Nxt Day
☐ 5 Work Days ☐ 2 Work Days ☐ 2 - 8 Hours

SAMPLE TYPE:
☐ Storm Water ☐ Air
☐ Waste Water ☐ Wipe
☐ Ground Water ☐ Other
☒ Soil

REPORT FORMAT:
☐ Excel/ EDD
☐ EDF
☐ QC Level III
☐ QC Level IV

ANALYSIS REQUESTED

LAB ID	CANISTER I.D.	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	PRES.	OCP's	CAM 17	STLC - Lead	TCLP - Lead	REMARKS
001A		EX-A-SP-1A	10.14.19 14:05	Soil	1	4oz glass Jar		X	X	X	X	4-pt composite
002A		EX-A-SP-1B	14:07									-005A
003A		EX-A-SP-1C	14:08									4-pt comp
004A		EX-A-SP-1D	14:10									

RUSH
1-DAY

	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1		Chris Vertin	10/14/19	15:00			10/14/19	1500
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? ☒ Yes ☐ NO Samples on Ice? ☒ Yes ☐ NO Method of Shipment D/O Sample seals intact? ☐ Yes ☐ NO ☒ N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Temp. Gun # 2 Temp 8 °C Page 1 of 1

Log In By: _____ Date: _____ Labeled By: _____ Date: _____ Log In Reviewed By: _____ Date: _____

Rev 3.

Torrent LABORATORY, INC.

Torrent LABORATORY, INC.

Change Order

Work Order: 1910131 **Serial #:** CO19-0607 **Print Date:** 10/16/2019

Project Name: Los Altos H.S.

Client: McCloskey Consultants **Requested By:** Chris Vertin

	Requested Date	Requested Time	Extended Price
Do not report any data except for TCLP Pb for 005; CAM17, OCPs, STLC extraction already done/started at the time of the request	10/15/2019	12:00:00PM	

483 Sinclair Frontage Rd., Milpitas, CA 95035 | tel: 408.263.5258 | fax: 408.263.8293 | www.torrentlab.com

Tom McCloskey
McCloskey Consultants
420 Sycamore Valley Road West
Danville, California 94526
Tel: 925 786 2667
Email: tom@mccloskeyconsultants.com

RE: Los Altos H.S.

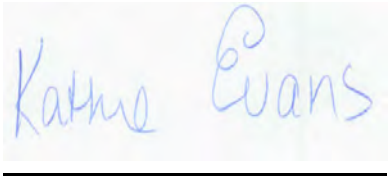
Work Order No.: 1910140

Dear Tom McCloskey:

Torrent Laboratory, Inc. received 9 sample(s) on October 15, 2019 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991 If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Kathie Evans
Project Manager

October 16, 2019
Date

Date: 10/16/2019

Client: McCloskey Consultants

Project: Los Altos H.S.

Work Order: 1910140

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Tom McCloskey
McCloskey Consultants

Date Received: 10/15/19
Date Reported: 10/16/19

EX-B-SW-1 1910140-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081B	1	0.19	2.0	17.8	ug/Kg
Endrin	SW8081B	1	0.19	2.0	3.92	ug/Kg
4,4'-DDT	SW8081B	1	0.13	2.0	47.3	ug/Kg
Dieldrin	SW8081B	20	3.0	40	389	ug/Kg

EX-B-SW-2 1910140-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
gamma-Chlordane	SW8081B	10	1.6	20	4.14	ug/Kg
alpha-Chlordane	SW8081B	10	1.7	20	3.27	ug/Kg
4,4'-DDE	SW8081B	10	1.9	20	30.2	ug/Kg
Dieldrin	SW8081B	10	1.5	20	51.3	ug/Kg
4,4'-DDT	SW8081B	10	1.3	20	29.8	ug/Kg
Chlordane	SW8081B	10	21	200	34.5	ug/Kg

EX-B-SW-3A 1910140-003

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081B	10	1.9	20	22.4	ug/Kg
Dieldrin	SW8081B	10	1.5	20	4.67	ug/Kg
4,4'-DDT	SW8081B	10	1.3	20	9.01	ug/Kg

EX-B-SW-3B 1910140-004

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081B	1	0.19	2.0	20.9	ug/Kg
Dieldrin	SW8081B	1	0.15	2.0	4.02	ug/Kg
4,4'-DDT	SW8081B	1	0.13	2.0	9.41	ug/Kg

EX-B-SW-4 1910140-005

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081B	1	0.19	2.0	34.8	ug/Kg
Dieldrin	SW8081B	1	0.15	2.0	5.99	ug/Kg
4,4'-DDT	SW8081B	1	0.13	2.0	8.88	ug/Kg

EX-B-SW-5 1910140-006

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081B	1	0.19	2.0	55.3	ug/Kg
Dieldrin	SW8081B	1	0.15	2.0	3.11	ug/Kg
4,4'-DDT	SW8081B	1	0.13	2.0	4.81	ug/Kg

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Tom McCloskey
McCloskey Consultants

Date Received: 10/15/19
Date Reported: 10/16/19

EX-B-B-1 1910140-007

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
gamma-Chlordane	SW8081B	10	1.6	20	3.88	ug/Kg
alpha-Chlordane	SW8081B	10	1.7	20	2.52	ug/Kg
4,4'-DDE	SW8081B	10	1.9	20	112	ug/Kg
Dieldrin	SW8081B	10	1.5	20	69.3	ug/Kg
4,4'-DDT	SW8081B	10	1.3	20	37.6	ug/Kg
Chlordane	SW8081B	10	21	200	26.9	ug/Kg

EX-B-B-2 1910140-008

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Dieldrin	SW8081B	1	0.15	2.0	5.41	ug/Kg
4,4'-DDD	SW8081B	1	0.57	2.0	2.66	ug/Kg
4,4'-DDT	SW8081B	1	0.13	2.0	29.9	ug/Kg
4,4'-DDE	SW8081B	3	0.58	6.0	101	ug/Kg

EX-B-B-3 1910140-009

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
Dieldrin	SW8081B	1	0.15	2.0	2.36	ug/Kg
4,4'-DDD	SW8081B	1	0.57	2.0	2.03	ug/Kg
4,4'-DDT	SW8081B	1	0.13	2.0	15.9	ug/Kg
4,4'-DDE	SW8081B	3	0.58	6.0	82.8	ug/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/15/19, 1:00 pm
Date Reported: 10/16/19

Client Sample ID:	EX-B-SW-1	**Lab Sample ID:**	1910140-001A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/15/19 / 11:11		
SDG:			

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/15/19 1:59:00PM
Prep Batch ID: 1117408 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
alpha-BHC	SW8081B	1	0.13	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
gamma-BHC (Lindane)	SW8081B	1	0.16	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
beta-BHC	SW8081B	1	0.32	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
delta-BHC	SW8081B	1	0.16	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
Heptachlor	SW8081B	1	0.11	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
Aldrin	SW8081B	1	0.20	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
Heptachlor Epoxide	SW8081B	1	0.078	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
gamma-Chlordane	SW8081B	1	0.16	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
alpha-Chlordane	SW8081B	1	0.17	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
4,4'-DDE	SW8081B	1	0.19	2.0	**17.8**		ug/Kg	10/15/19	23:37	LA	443151
Endosulfan I	SW8081B	1	0.18	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
Endrin	SW8081B	1	0.19	2.0	**3.92**		ug/Kg	10/15/19	23:37	LA	443151
4,4'-DDD	SW8081B	1	0.57	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
Endosulfan II	SW8081B	1	0.58	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
4,4'-DDT	SW8081B	1	0.13	2.0	**47.3**		ug/Kg	10/15/19	23:37	LA	443151
Endrin Aldehyde	SW8081B	1	0.15	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
Methoxychlor	SW8081B	1	0.20	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
Endosulfan Sulfate	SW8081B	1	0.12	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
Endrin Ketone	SW8081B	1	0.094	2.0	ND		ug/Kg	10/15/19	23:37	LA	443151
Chlordane	SW8081B	1	2.1	20	ND		ug/Kg	10/15/19	23:37	LA	443151
Toxaphene	SW8081B	1	8.5	50	ND		ug/Kg	10/15/19	23:37	LA	443151
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**93.2**		%	10/15/19	23:37	LA	443151
DCBP (S)	SW8081B		38 - 135		**110**		%	10/15/19	23:37	LA	443151

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/15/19 1:59:00PM
Prep Batch ID: 1117408 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
Dieldrin	SW8081B	20	3.0	40	**389**		ug/Kg	10/16/19	12:48	LA	443151

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/15/19, 1:00 pm
Date Reported: 10/16/19

Client Sample ID:	EX-B-SW-2	**Lab Sample ID:**	1910140-002A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/15/19 / 11:15		
SDG:			

Prep Method:	3546_OCP	**Prep Batch Date/Time:**	10/15/19 1:59:00PM
Prep Batch ID:	1117408	**Prep Analyst:**	MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081B	10	1.3	20	ND		ug/Kg	10/15/19	23:50	LA	443151
gamma-BHC (Lindane)	SW8081B	10	1.6	20	ND		ug/Kg	10/15/19	23:50	LA	443151
beta-BHC	SW8081B	10	3.2	20	ND		ug/Kg	10/15/19	23:50	LA	443151
delta-BHC	SW8081B	10	1.6	20	ND		ug/Kg	10/15/19	23:50	LA	443151
Heptachlor	SW8081B	10	1.1	20	ND		ug/Kg	10/15/19	23:50	LA	443151
Aldrin	SW8081B	10	2.0	20	ND		ug/Kg	10/15/19	23:50	LA	443151
Heptachlor Epoxide	SW8081B	10	0.78	20	ND		ug/Kg	10/15/19	23:50	LA	443151
gamma-Chlordane	SW8081B	10	1.6	20	**4.14**	J	ug/Kg	10/15/19	23:50	LA	443151
alpha-Chlordane	SW8081B	10	1.7	20	**3.27**	J	ug/Kg	10/15/19	23:50	LA	443151
4,4'-DDE	SW8081B	10	1.9	20	**30.2**		ug/Kg	10/15/19	23:50	LA	443151
Endosulfan I	SW8081B	10	1.8	20	ND		ug/Kg	10/15/19	23:50	LA	443151
Dieldrin	SW8081B	10	1.5	20	**51.3**		ug/Kg	10/15/19	23:50	LA	443151
Endrin	SW8081B	10	1.9	20	ND		ug/Kg	10/15/19	23:50	LA	443151
4,4'-DDD	SW8081B	10	5.7	20	ND		ug/Kg	10/15/19	23:50	LA	443151
Endosulfan II	SW8081B	10	5.8	20	ND		ug/Kg	10/15/19	23:50	LA	443151
4,4'-DDT	SW8081B	10	1.3	20	**29.8**		ug/Kg	10/15/19	23:50	LA	443151
Endrin Aldehyde	SW8081B	10	1.5	20	ND		ug/Kg	10/15/19	23:50	LA	443151
Methoxychlor	SW8081B	10	2.0	20	ND		ug/Kg	10/15/19	23:50	LA	443151
Endosulfan Sulfate	SW8081B	10	1.2	20	ND		ug/Kg	10/15/19	23:50	LA	443151
Endrin Ketone	SW8081B	10	0.94	20	ND		ug/Kg	10/15/19	23:50	LA	443151
Chlordane	SW8081B	10	21	200	**34.5**	J	ug/Kg	10/15/19	23:50	LA	443151
Toxaphene	SW8081B	10	85	500	ND		ug/Kg	10/15/19	23:50	LA	443151
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**108**		%	10/15/19	23:50	LA	443151
DCBP (S)	SW8081B		38 - 135		**108**		%	10/15/19	23:50	LA	443151

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/15/19, 1:00 pm
Date Reported: 10/16/19

Client Sample ID:	EX-B-SW-3A	**Lab Sample ID:**	1910140-003A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/15/19 / 11:17		
SDG:			

Prep Method:	3546_OCP	**Prep Batch Date/Time:**	10/15/19 1:59:00PM
Prep Batch ID:	1117408	**Prep Analyst:**	MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081B	10	1.3	20	ND		ug/Kg	10/16/19	0:04	LA	443151
gamma-BHC (Lindane)	SW8081B	10	1.6	20	ND		ug/Kg	10/16/19	0:04	LA	443151
beta-BHC	SW8081B	10	3.2	20	ND		ug/Kg	10/16/19	0:04	LA	443151
delta-BHC	SW8081B	10	1.6	20	ND		ug/Kg	10/16/19	0:04	LA	443151
Heptachlor	SW8081B	10	1.1	20	ND		ug/Kg	10/16/19	0:04	LA	443151
Aldrin	SW8081B	10	2.0	20	ND		ug/Kg	10/16/19	0:04	LA	443151
Heptachlor Epoxide	SW8081B	10	0.78	20	ND		ug/Kg	10/16/19	0:04	LA	443151
gamma-Chlordane	SW8081B	10	1.6	20	ND		ug/Kg	10/16/19	0:04	LA	443151
alpha-Chlordane	SW8081B	10	1.7	20	ND		ug/Kg	10/16/19	0:04	LA	443151
4,4'-DDE	SW8081B	10	1.9	20	**22.4**		ug/Kg	10/16/19	0:04	LA	443151
Endosulfan I	SW8081B	10	1.8	20	ND		ug/Kg	10/16/19	0:04	LA	443151
Dieldrin	SW8081B	10	1.5	20	**4.67**	J	ug/Kg	10/16/19	0:04	LA	443151
Endrin	SW8081B	10	1.9	20	ND		ug/Kg	10/16/19	0:04	LA	443151
4,4'-DDD	SW8081B	10	5.7	20	ND		ug/Kg	10/16/19	0:04	LA	443151
Endosulfan II	SW8081B	10	5.8	20	ND		ug/Kg	10/16/19	0:04	LA	443151
4,4'-DDT	SW8081B	10	1.3	20	**9.01**	J	ug/Kg	10/16/19	0:04	LA	443151
Endrin Aldehyde	SW8081B	10	1.5	20	ND		ug/Kg	10/16/19	0:04	LA	443151
Methoxychlor	SW8081B	10	2.0	20	ND		ug/Kg	10/16/19	0:04	LA	443151
Endosulfan Sulfate	SW8081B	10	1.2	20	ND		ug/Kg	10/16/19	0:04	LA	443151
Endrin Ketone	SW8081B	10	0.94	20	ND		ug/Kg	10/16/19	0:04	LA	443151
Chlordane	SW8081B	10	21	200	ND		ug/Kg	10/16/19	0:04	LA	443151
Toxaphene	SW8081B	10	85	500	ND		ug/Kg	10/16/19	0:04	LA	443151
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**111**		%	10/16/19	0:04	LA	443151
DCBP (S)	SW8081B		38 - 135		**110**		%	10/16/19	0:04	LA	443151

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/15/19, 1:00 pm
Date Reported: 10/16/19

Client Sample ID:	EX-B-SW-3B	**Lab Sample ID:**	1910140-004A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/15/19 / 11:19		
SDG:			

Prep Method:	3546_OCP	**Prep Batch Date/Time:**	10/15/19 1:59:00PM
Prep Batch ID:	1117408	**Prep Analyst:**	MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
alpha-BHC	SW8081B	1	0.13	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
gamma-BHC (Lindane)	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
beta-BHC	SW8081B	1	0.32	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
delta-BHC	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
Heptachlor	SW8081B	1	0.11	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
Aldrin	SW8081B	1	0.20	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
Heptachlor Epoxide	SW8081B	1	0.078	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
gamma-Chlordane	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
alpha-Chlordane	SW8081B	1	0.17	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
4,4'-DDE	SW8081B	1	0.19	2.0	**20.9**		ug/Kg	10/16/19	0:44	LA	443151
Endosulfan I	SW8081B	1	0.18	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
Dieldrin	SW8081B	1	0.15	2.0	**4.02**		ug/Kg	10/16/19	0:44	LA	443151
Endrin	SW8081B	1	0.19	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
4,4'-DDD	SW8081B	1	0.57	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
Endosulfan II	SW8081B	1	0.58	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
4,4'-DDT	SW8081B	1	0.13	2.0	**9.41**		ug/Kg	10/16/19	0:44	LA	443151
Endrin Aldehyde	SW8081B	1	0.15	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
Methoxychlor	SW8081B	1	0.20	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
Endosulfan Sulfate	SW8081B	1	0.12	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
Endrin Ketone	SW8081B	1	0.094	2.0	ND		ug/Kg	10/16/19	0:44	LA	443151
Chlordane	SW8081B	1	2.1	20	ND		ug/Kg	10/16/19	0:44	LA	443151
Toxaphene	SW8081B	1	8.5	50	ND		ug/Kg	10/16/19	0:44	LA	443151
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**92.0**		%	10/16/19	0:44	LA	443151
DCBP (S)	SW8081B		38 - 135		**106**		%	10/16/19	0:44	LA	443151

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/15/19, 1:00 pm
Date Reported: 10/16/19

Client Sample ID:	EX-B-SW-4	**Lab Sample ID:**	1910140-005A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/15/19 / 11:23		
SDG:			

Prep Method:	3546_OCP	**Prep Batch Date/Time:**	10/15/19 1:59:00PM
Prep Batch ID:	1117408	**Prep Analyst:**	MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
alpha-BHC	SW8081B	1	0.13	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
gamma-BHC (Lindane)	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
beta-BHC	SW8081B	1	0.32	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
delta-BHC	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
Heptachlor	SW8081B	1	0.11	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
Aldrin	SW8081B	1	0.20	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
Heptachlor Epoxide	SW8081B	1	0.078	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
gamma-Chlordane	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
alpha-Chlordane	SW8081B	1	0.17	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
4,4'-DDE	SW8081B	1	0.19	2.0	**34.8**		ug/Kg	10/16/19	0:58	LA	443151
Endosulfan I	SW8081B	1	0.18	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
Dieldrin	SW8081B	1	0.15	2.0	**5.99**		ug/Kg	10/16/19	0:58	LA	443151
Endrin	SW8081B	1	0.19	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
4,4'-DDD	SW8081B	1	0.57	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
Endosulfan II	SW8081B	1	0.58	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
4,4'-DDT	SW8081B	1	0.13	2.0	**8.88**		ug/Kg	10/16/19	0:58	LA	443151
Endrin Aldehyde	SW8081B	1	0.15	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
Methoxychlor	SW8081B	1	0.20	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
Endosulfan Sulfate	SW8081B	1	0.12	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
Endrin Ketone	SW8081B	1	0.094	2.0	ND		ug/Kg	10/16/19	0:58	LA	443151
Chlordane	SW8081B	1	2.1	20	ND		ug/Kg	10/16/19	0:58	LA	443151
Toxaphene	SW8081B	1	8.5	50	ND		ug/Kg	10/16/19	0:58	LA	443151
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**96.7**		%	10/16/19	0:58	LA	443151
DCBP (S)	SW8081B		38 - 135		**111**		%	10/16/19	0:58	LA	443151

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/15/19, 1:00 pm
Date Reported: 10/16/19

Client Sample ID:	EX-B-SW-5	**Lab Sample ID:**	1910140-006A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/15/19 / 11:27		
SDG:			

Prep Method:	3546_OCP	**Prep Batch Date/Time:**	10/15/19 1:59:00PM
Prep Batch ID:	1117408	**Prep Analyst:**	MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
alpha-BHC	SW8081B	1	0.13	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
gamma-BHC (Lindane)	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
beta-BHC	SW8081B	1	0.32	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
delta-BHC	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
Heptachlor	SW8081B	1	0.11	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
Aldrin	SW8081B	1	0.20	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
Heptachlor Epoxide	SW8081B	1	0.078	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
gamma-Chlordane	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
alpha-Chlordane	SW8081B	1	0.17	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
4,4'-DDE	SW8081B	1	0.19	2.0	**55.3**		ug/Kg	10/16/19	1:11	LA	443151
Endosulfan I	SW8081B	1	0.18	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
Dieldrin	SW8081B	1	0.15	2.0	**3.11**		ug/Kg	10/16/19	1:11	LA	443151
Endrin	SW8081B	1	0.19	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
4,4'-DDD	SW8081B	1	0.57	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
Endosulfan II	SW8081B	1	0.58	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
4,4'-DDT	SW8081B	1	0.13	2.0	**4.81**		ug/Kg	10/16/19	1:11	LA	443151
Endrin Aldehyde	SW8081B	1	0.15	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
Methoxychlor	SW8081B	1	0.20	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
Endosulfan Sulfate	SW8081B	1	0.12	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
Endrin Ketone	SW8081B	1	0.094	2.0	ND		ug/Kg	10/16/19	1:11	LA	443151
Chlordane	SW8081B	1	2.1	20	ND		ug/Kg	10/16/19	1:11	LA	443151
Toxaphene	SW8081B	1	8.5	50	ND		ug/Kg	10/16/19	1:11	LA	443151
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**95.6**		%	10/16/19	1:11	LA	443151
DCBP (S)	SW8081B		38 - 135		**114**		%	10/16/19	1:11	LA	443151

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/15/19, 1:00 pm
Date Reported: 10/16/19

Client Sample ID:	EX-B-B-1	**Lab Sample ID:**	1910140-007A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/15/19 / 11:13		
SDG:			

Prep Method:	3546_OCP	**Prep Batch Date/Time:**	10/15/19 1:59:00PM
Prep Batch ID:	1117408	**Prep Analyst:**	MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
The results shown below are reported using their MDL.											
alpha-BHC	SW8081B	10	1.3	20	ND		ug/Kg	10/16/19	1:25	LA	443151
gamma-BHC (Lindane)	SW8081B	10	1.6	20	ND		ug/Kg	10/16/19	1:25	LA	443151
beta-BHC	SW8081B	10	3.2	20	ND		ug/Kg	10/16/19	1:25	LA	443151
delta-BHC	SW8081B	10	1.6	20	ND		ug/Kg	10/16/19	1:25	LA	443151
Heptachlor	SW8081B	10	1.1	20	ND		ug/Kg	10/16/19	1:25	LA	443151
Aldrin	SW8081B	10	2.0	20	ND		ug/Kg	10/16/19	1:25	LA	443151
Heptachlor Epoxide	SW8081B	10	0.78	20	ND		ug/Kg	10/16/19	1:25	LA	443151
gamma-Chlordane	SW8081B	10	1.6	20	**3.88**	J	ug/Kg	10/16/19	1:25	LA	443151
alpha-Chlordane	SW8081B	10	1.7	20	**2.52**	J	ug/Kg	10/16/19	1:25	LA	443151
4,4'-DDE	SW8081B	10	1.9	20	**112**		ug/Kg	10/16/19	1:25	LA	443151
Endosulfan I	SW8081B	10	1.8	20	ND		ug/Kg	10/16/19	1:25	LA	443151
Dieldrin	SW8081B	10	1.5	20	**69.3**		ug/Kg	10/16/19	1:25	LA	443151
Endrin	SW8081B	10	1.9	20	ND		ug/Kg	10/16/19	1:25	LA	443151
4,4'-DDD	SW8081B	10	5.7	20	ND		ug/Kg	10/16/19	1:25	LA	443151
Endosulfan II	SW8081B	10	5.8	20	ND		ug/Kg	10/16/19	1:25	LA	443151
4,4'-DDT	SW8081B	10	1.3	20	**37.6**		ug/Kg	10/16/19	1:25	LA	443151
Endrin Aldehyde	SW8081B	10	1.5	20	ND		ug/Kg	10/16/19	1:25	LA	443151
Methoxychlor	SW8081B	10	2.0	20	ND		ug/Kg	10/16/19	1:25	LA	443151
Endosulfan Sulfate	SW8081B	10	1.2	20	ND		ug/Kg	10/16/19	1:25	LA	443151
Endrin Ketone	SW8081B	10	0.94	20	ND		ug/Kg	10/16/19	1:25	LA	443151
Chlordane	SW8081B	10	21	200	**26.9**	J	ug/Kg	10/16/19	1:25	LA	443151
Toxaphene	SW8081B	10	85	500	ND		ug/Kg	10/16/19	1:25	LA	443151
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**103**		%	10/16/19	1:25	LA	443151
DCBP (S)	SW8081B		38 - 135		**107**		%	10/16/19	1:25	LA	443151

NOTE: Sample diluted due to nature of the matrix (dark, viscous extract)

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/15/19, 1:00 pm
Date Reported: 10/16/19

Client Sample ID:	EX-B-B-2	**Lab Sample ID:**	1910140-008A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/15/19 / 11:21		
SDG:			

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/15/19 1:59:00PM
Prep Batch ID: 1117408 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
alpha-BHC	SW8081B	1	0.13	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
gamma-BHC (Lindane)	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
beta-BHC	SW8081B	1	0.32	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
delta-BHC	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
Heptachlor	SW8081B	1	0.11	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
Aldrin	SW8081B	1	0.20	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
Heptachlor Epoxide	SW8081B	1	0.078	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
gamma-Chlordane	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
alpha-Chlordane	SW8081B	1	0.17	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
Endosulfan I	SW8081B	1	0.18	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
Dieldrin	SW8081B	1	0.15	2.0	**5.41**		ug/Kg	10/16/19	1:38	LA	443151
Endrin	SW8081B	1	0.19	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
4,4'-DDD	SW8081B	1	0.57	2.0	**2.66**		ug/Kg	10/16/19	1:38	LA	443151
Endosulfan II	SW8081B	1	0.58	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
4,4'-DDT	SW8081B	1	0.13	2.0	**29.9**		ug/Kg	10/16/19	1:38	LA	443151
Endrin Aldehyde	SW8081B	1	0.15	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
Methoxychlor	SW8081B	1	0.20	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
Endosulfan Sulfate	SW8081B	1	0.12	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
Endrin Ketone	SW8081B	1	0.094	2.0	ND		ug/Kg	10/16/19	1:38	LA	443151
Chlordane	SW8081B	1	2.1	20	ND		ug/Kg	10/16/19	1:38	LA	443151
Toxaphene	SW8081B	1	8.5	50	ND		ug/Kg	10/16/19	1:38	LA	443151
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**95.0**		%	10/16/19	1:38	LA	443151
DCBP (S)	SW8081B		38 - 135		**111**		%	10/16/19	1:38	LA	443151

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/15/19 1:59:00PM
Prep Batch ID: 1117408 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
4,4'-DDE	SW8081B	3	0.58	6.0	**101**		ug/Kg	10/16/19	13:02	LA	443151

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/15/19, 1:00 pm
Date Reported: 10/16/19

Client Sample ID:	EX-B-B-3	**Lab Sample ID:**	1910140-009A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/15/19 / 11:25		
SDG:			

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/15/19 1:59:00PM
Prep Batch ID: 1117408 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
alpha-BHC	SW8081B	1	0.13	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
gamma-BHC (Lindane)	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
beta-BHC	SW8081B	1	0.32	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
delta-BHC	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
Heptachlor	SW8081B	1	0.11	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
Aldrin	SW8081B	1	0.20	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
Heptachlor Epoxide	SW8081B	1	0.078	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
gamma-Chlordane	SW8081B	1	0.16	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
alpha-Chlordane	SW8081B	1	0.17	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
Endosulfan I	SW8081B	1	0.18	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
Dieldrin	SW8081B	1	0.15	2.0	**2.36**		ug/Kg	10/16/19	1:51	LA	443151
Endrin	SW8081B	1	0.19	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
4,4'-DDD	SW8081B	1	0.57	2.0	**2.03**		ug/Kg	10/16/19	1:51	LA	443151
Endosulfan II	SW8081B	1	0.58	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
4,4'-DDT	SW8081B	1	0.13	2.0	**15.9**		ug/Kg	10/16/19	1:51	LA	443151
Endrin Aldehyde	SW8081B	1	0.15	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
Methoxychlor	SW8081B	1	0.20	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
Endosulfan Sulfate	SW8081B	1	0.12	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
Endrin Ketone	SW8081B	1	0.094	2.0	ND		ug/Kg	10/16/19	1:51	LA	443151
Chlordane	SW8081B	1	2.1	20	ND		ug/Kg	10/16/19	1:51	LA	443151
Toxaphene	SW8081B	1	8.5	50	ND		ug/Kg	10/16/19	1:51	LA	443151
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**92.4**		%	10/16/19	1:51	LA	443151
DCBP (S)	SW8081B		38 - 135		**108**		%	10/16/19	1:51	LA	443151

Prep Method: 3546_OCP **Prep Batch Date/Time:** 10/15/19 1:59:00PM
Prep Batch ID: 1117408 **Prep Analyst:** MSAT

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
4,4'-DDE	SW8081B	3	0.58	6.0	**82.8**		ug/Kg	10/16/19	13:15	LA	443151

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1910140	**Prep Method:**	3546_OCP	**Prep Date:**	10/15/19	**Prep Batch:**	1117408
Matrix:	Soil	**Analytical Method:**	SW8081B	**Analyzed Date:**	10/15/2019	**Analytical Batch:**	443151
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
alpha-BHC	0.13	2.0	ND	
gamma-BHC (Lindane)	0.16	2.0	ND	
beta-BHC	0.32	2.0	ND	
delta-BHC	0.16	2.0	ND	
Heptachlor	0.11	2.0	ND	
Aldrin	0.20	2.0	ND	
Heptachlor Epoxide	0.078	2.0	ND	
gamma-Chlordane	0.16	2.0	ND	
alpha-Chlordane	0.17	2.0	ND	
4,4'-DDE	0.19	2.0	ND	
Endosulfan I	0.18	2.0	ND	
Dieldrin	0.15	2.0	ND	
Endrin	0.19	2.0	ND	
4,4'-DDD	0.57	2.0	ND	
Endosulfan II	0.58	2.0	ND	
4,4'-DDT	0.13	2.0	ND	
Endrin Aldehyde	0.15	2.0	ND	
Methoxychlor	0.20	2.0	ND	
Endosulfan Sulfate	0.12	2.0	ND	
Endrin Ketone	0.094	2.0	ND	
Chlordane	2.1	20	ND	
Toxaphene	8.5	50	ND	
TCMX (S)			90.2	
DCBP (S)			106	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1910140	**Prep Method:**	3546_OCP	**Prep Date:**	10/15/19	**Prep Batch:**	1117408
Matrix:	Soil	**Analytical Method:**	SW8081B	**Analyzed Date:**	10/15/2019	**Analytical Batch:**	443151
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC (Lindane)	0.16	2.0	ND	40	93.3	98.8	5.73	25 - 135	30	
Heptachlor	0.11	2.0	ND	40	96.6	102	5.04	40 - 130	30	
Aldrin	0.20	2.0	ND	40	92.8	98.5	6.01	25 - 140	30	
Dieldrin	0.15	2.0	ND	40	91.5	96.6	5.32	60 - 130	30	
Endrin	0.19	2.0	ND	40	99.4	105	5.39	55 - 135	30	
4,4'-DDT	0.13	2.0	ND	40	100	104	3.91	45 - 140	30	
TCMX (S)				100	90.3	94.4		48 - 125		
DCBP (S)				100	106	112		38 - 135		

Torrent LABORATORY, INC.

MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1910140	**Prep Method:**	3546_OCP	**Prep Date:**	10/15/19	**Prep Batch:**	1117408
Matrix:	**Soil**	**Analytical Method:**	SW8081B	**Analyzed Date:**	10/16/2019	**Analytical Batch:**	443151
Spiked Sample:	1910140-003A						
Units:	ug/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC (Lindane)	1.59	20.0	ND	40	112	114	1.77	25 - 135	30	
Heptachlor	1.05	20.0	ND	40	122	123	1.22	40 - 130	30	
Aldrin	1.95	20.0	ND	40	113	116	2.18	25 - 140	30	
Dieldrin	1.48	20.0	ND	40	109	110	0.412	60 - 130	30	
Endrin	1.88	20.0	ND	40	117	118	1.49	55 - 135	30	
4,4'-DDT	1.29	20.0	ND	40	122	115	5.15	45 - 140	30	
TCMX (S)				100	112	114		48 - 125		
DCBP (S)				100	119	114		38 - 135		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: McCloskey Consultants

Project Name: Los Altos H.S.

Work Order No.: 1910140

Date and Time Received: 10/15/2019 1:00:00PM

Received By: Helena Ueng

Physically Logged By: Helena Ueng

Checklist Completed By: Helena Ueng

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes			
Container/Temp Blank temperature in compliance?	Yes	Temperature:	3.0	°C
Water-VOA vials have zero headspace?	No VOA vials submitted			
Water-pH acceptable upon receipt?	N/A			

pH Checked by: N/A

pH Adjusted by: N/A

Comments:

Torrent LABORATORY, INC.

Login Summary Report

Client ID: TL5324 McCloskey Consultants
Project Name: Los Altos H.S.
Project # :
Report Due Date: 10/16/2019

QC Level: II
TAT Requested: 1 Day Rush:1
Date Received: 10/15/2019
Time Received: 1:00 pm

Comments:

Work Order # : ***1910140***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
1910140-001A	EX-B-SW-1	10/15/19 11:11	Soil	04/12/20			Pest_S_8081OCP	
Sample Note:	*1-DAY RUSH! OCPs							
1910140-002A	EX-B-SW-2	10/15/19 11:15	Soil	04/12/20			Pest_S_8081OCP	
1910140-003A	EX-B-SW-3A	10/15/19 11:17	Soil	04/12/20			Pest_S_8081OCP	
1910140-004A	EX-B-SW-3B	10/15/19 11:19	Soil	04/12/20			Pest_S_8081OCP	
1910140-005A	EX-B-SW-4	10/15/19 11:23	Soil	04/12/20			Pest_S_8081OCP	
1910140-006A	EX-B-SW-5	10/15/19 11:27	Soil	04/12/20			Pest_S_8081OCP	
1910140-007A	EX-B-B-1	10/15/19 11:13	Soil	04/12/20			Pest_S_8081OCP	
1910140-008A	EX-B-B-2	10/15/19 11:21	Soil	04/12/20			Pest_S_8081OCP	
1910140-009A	EX-B-B-3	10/15/19 11:25	Soil	04/12/20			Pest_S_8081OCP	

Torrent LABORATORY, INC.

Torrent LABORATORY, INC.
483 Sinclair Frontage Road
Milpitas, CA 95035
Phone: 408.263.5258
FAX: 408.263.8293
www.torrentlab.com

CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO: 1910140

Company Name: MCI - McCloskey	☐ ☒ Env. ☐ Special	Project #: Los Altos H.S.	PO #:
Address: 420 Sycamore Valley Rd West		Project Name:	
City: Danville	State: CA	Zip Code: 94526	Comments:
Telephone:	Cell: 925.786.2667		SAMPLER: Chris Vertin Quote #:
REPORT TO: Tom McCloskey / Chris Vertin	BILL TO:		EMAIL:

TURNAROUND TIME:
☐ 10 Work Days ☐ 4 Work Days ☒ 1 Work Day
☐ 7 Work Days ☐ 3 Work Days ☐ Noon - Nxt Day
☐ 5 Work Days ☐ 2 Work Days ☐ 2 - 8 Hours

SAMPLE TYPE:
☐ Storm Water ☐ Air
☐ Waste Water ☐ Wipe
☐ Ground Water ☐ Other
☒ Soil ☐ Product / Bulk

REPORT FORMAT:
☐ Level II - Std.
☐ Excel - EDD
☐ EDF ☐ Std.-EDD
☐ QC Level III
☐ QC Level IV

ANALYSIS REQUESTED

LAB ID	CANISTER I.D.	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	OCPs	REMARKS
001A		Ex-B-Sw-1	10/15/19 11:11	Soil	1	4oz glass	X	
002A		Ex-B-Sw-2	11:15					
003A		Ex-B-Sw-3A	11:17					
004A		Ex-B-Sw-3B	11:19					
005A		Ex-B-Sw-4	11:23					
006A		Ex-B-Sw-5	11:27					
007A		Ex-B-B-1	11:13					
008A		Ex-B-B-2	11:21					
009A		Ex-B-B-3	11:25					

RUSH
1-DAY

	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1		Chris Vertin	10/15/19	13:00		Helena Ung	10/15/19	1300
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? ☒ Yes ☐ NO Samples on Ice? ☒ Yes ☐ NO Method of Shipment D/O Sample seals intact? ☐ Yes ☐ NO ☒ N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: _____ Date: _____ Labeled By: _____ Date: _____ Temp 3 #2 °C

Page 1 of 1 Rev. 4

Tom McCloskey
McCloskey Consultants
420 Sycamore Valley Road West
Danville, California 94526
Tel: 925 786 2667
Email: tom@mccloskeyconsultants.com

RE: Los Altos H.S.

Work Order No.: 1910146

Dear Tom McCloskey:

Torrent Laboratory, Inc. received 1 sample(s) on October 16, 2019 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991 If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Kathie Evans
Project Manager

October 17, 2019
Date

Tom McCloskey
McCloskey Consultants
420 Sycamore Valley Road West
Danville, California 94526
Tel: 925 786 2667
Email: tom@mccloskeyconsultants.com

RE: Los Altos H.S.

Work Order No.: 1910146

Dear Tom McCloskey:

Torrent Laboratory, Inc. received 1 sample(s) on October 16, 2019 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991 If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Kathie Evans
Project Manager

October 17, 2019
Date

Date: 10/17/2019

Client: McCloskey Consultants

Project: Los Altos H.S.

Work Order: 1910146

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Date: 10/17/2019

Client: McCloskey Consultants

Project: Los Altos H.S.

Work Order: 1910146

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Tom McCloskey
McCloskey Consultants

Date Received: 10/16/19
Date Reported: 10/17/19

EX-A-SW-1A 1910146-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081B	1	0.19	2.0	10.2	ug/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/16/19, 3:03 pm
Date Reported: 10/17/19

Client Sample ID:	EX-A-SW-1A	**Lab Sample ID:**	1910146-001A
Project Name/Location:	Los Altos H.S.	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/16/19 / 14:20		
SDG:			

Prep Method:	3546_OCP	**Prep Batch Date/Time:**	10/16/19 5:51:00PM
Prep Batch ID:	1117463	**Prep Analyst:**	SNARASIMHAN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
alpha-BHC	SW8081B	1	0.13	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
gamma-BHC (Lindane)	SW8081B	1	0.16	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
beta-BHC	SW8081B	1	0.32	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
delta-BHC	SW8081B	1	0.16	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
Heptachlor	SW8081B	1	0.11	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
Aldrin	SW8081B	1	0.20	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
Heptachlor Epoxide	SW8081B	1	0.078	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
gamma-Chlordane	SW8081B	1	0.16	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
alpha-Chlordane	SW8081B	1	0.17	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
4,4'-DDE	SW8081B	1	0.19	2.0	**10.2**		ug/Kg	10/17/19	1:25	LA	443178
Endosulfan I	SW8081B	1	0.18	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
Dieldrin	SW8081B	1	0.15	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
Endrin	SW8081B	1	0.19	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
4,4'-DDD	SW8081B	1	0.57	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
Endosulfan II	SW8081B	1	0.58	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
4,4'-DDT	SW8081B	1	0.13	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
Endrin Aldehyde	SW8081B	1	0.15	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
Methoxychlor	SW8081B	1	0.20	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
Endosulfan Sulfate	SW8081B	1	0.12	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
Endrin Ketone	SW8081B	1	0.094	2.0	ND		ug/Kg	10/17/19	1:25	LA	443178
Chlordane	SW8081B	1	2.1	20	ND		ug/Kg	10/17/19	1:25	LA	443178
Toxaphene	SW8081B	1	8.5	50	ND		ug/Kg	10/17/19	1:25	LA	443178
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**69.6**		%	10/17/19	1:25	LA	443178
DCBP (S)	SW8081B		38 - 135		**93.0**		%	10/17/19	1:25	LA	443178

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1910146	**Prep Method:**	3546_OCP	**Prep Date:**	10/16/19	**Prep Batch:**	1117463
Matrix:	Soil	**Analytical Method:**	SW8081B	**Analyzed Date:**	10/17/2019	**Analytical Batch:**	443178
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
alpha-BHC	0.13	2.0	ND	
gamma-BHC (Lindane)	0.16	2.0	ND	
beta-BHC	0.32	2.0	ND	
delta-BHC	0.16	2.0	ND	
Heptachlor	0.11	2.0	ND	
Aldrin	0.20	2.0	ND	
Heptachlor Epoxide	0.078	2.0	ND	
gamma-Chlordane	0.16	2.0	ND	
alpha-Chlordane	0.17	2.0	ND	
4,4'-DDE	0.19	2.0	ND	
Endosulfan I	0.18	2.0	ND	
Dieldrin	0.15	2.0	ND	
Endrin	0.19	2.0	ND	
4,4'-DDD	0.57	2.0	ND	
Endosulfan II	0.58	2.0	ND	
4,4'-DDT	0.13	2.0	ND	
Endrin Aldehyde	0.15	2.0	ND	
Methoxychlor	0.20	2.0	ND	
Endosulfan Sulfate	0.12	2.0	ND	
Endrin Ketone	0.094	2.0	ND	
Chlordane	2.1	20	ND	
Toxaphene	8.5	50	ND	
TCMX (S)			90.4	
DCBP (S)			93.5	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1910146	**Prep Method:**	3546_OCP	**Prep Date:**	10/16/19	**Prep Batch:**	1117463
Matrix:	Soil	**Analytical Method:**	SW8081B	**Analyzed Date:**	10/17/2019	**Analytical Batch:**	443178
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC (Lindane)	0.16	2.0	ND	40	91.3	90.0	1.38	25 - 135	30	
Heptachlor	0.11	2.0	ND	40	93.7	91.8	2.16	40 - 130	30	
Aldrin	0.20	2.0	ND	40	89.4	87.8	1.69	25 - 140	30	
Dieldrin	0.15	2.0	ND	40	87.6	86.4	1.44	60 - 130	30	
Endrin	0.19	2.0	ND	40	92.2	90.6	1.92	55 - 135	30	
4,4'-DDT	0.13	2.0	ND	40	83.6	81.3	2.73	45 - 140	30	
TCMX (S)				100	91.3	89.8		48 - 125		
DCBP (S)				100	92.9	92.9		38 - 135		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: McCloskey Consultants

Project Name: Los Altos H.S.

Work Order No.: 1910146

Date and Time Received: 10/16/2019 3:03:00PM

Received By: Helena Ueng

Physically Logged By: Helena Ueng

Checklist Completed By: Helena Ueng

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes			
Container/Temp Blank temperature in compliance?	Yes	Temperature:	5.0	°C
Water-VOA vials have zero headspace?	No VOA vials submitted			
Water-pH acceptable upon receipt?	N/A			

pH Checked by: N/A

pH Adjusted by: N/A

Comments:

Login Summary Report

Client ID:	TL5324	McCloskey Consultants	**QC Level:**	II
Project Name:	Los Altos H.S.		**TAT Requested:**	1 Day Rush:1
Project # :			**Date Received:**	10/16/2019
Report Due Date:	10/17/2019		**Time Received:**	3:03 pm

Comments:

Work Order # : ***1910146***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
1910146-001A	EX-A-SW-1A	10/16/19 14:20	Soil	04/13/20			Pest_S_8081OCP	

Sample Note: *1-DAY RUSH! OCPs

Torrent LABORATORY, INC.

Torrent LABORATORY, INC.
483 Sinclair Frontage Road
Milpitas, CA 95035
Phone: 408.263.5258
FAX: 408.263.8293
www.torrentlab.com

CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO: 1910146

Company Name: MCI - McCloskey ☐ ☒ Env. ☐ Special | Project #: Los Altos H.S | PO #:

Address: 420 Sycamore Valley Rd West | Project Name:

City: Danville | State: CA | Zip Code: 94526 | Comments:

Telephone: | Cell: 925.786.2667 | SAMPLER: Chris Vertin | Quote #:

REPORT TO: Tom McCloskey / Chris Vertin | BILL TO: | EMAIL:

TURNAROUND TIME:
☐ 10 Work Days ☐ 4 Work Days ☒ 1 Work Day
☐ 7 Work Days ☐ 3 Work Days ☐ Noon - Nxt Day
☐ 5 Work Days ☐ 2 Work Days ☐ 2 - 8 Hours

SAMPLE TYPE:
☐ Storm Water ☐ Air
☐ Waste Water ☐ Wipe
☐ Ground Water ☐ Other
☒ Soil ☐ Product / Bulk

REPORT FORMAT:
☐ Level II - Std.
☐ Excel - EDD
☐ EDF ☐ Std.-EDD
☐ QC Level III
☐ QC Level IV

ANALYSIS REQUESTED

LAB ID	CANISTER I.D.	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	OCPs	REMARKS
001A		EX-A-SW-1A	10.16.19 14:20	Soil	1	4oz glass Jar	X	

RUSH 1-DAY

	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1		Chris Vertin	10/16/19	15:03		Helen Valley	10/16/19	1503
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? ☒ Yes ☐ NO | Samples on Ice? ☒ Yes ☐ NO | Method of Shipment: DLO | Sample seals intact? ☐ Yes ☐ NO ☒ N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: _____ Date: _____ Labeled By: _____ Date: _____ Temp 5 °C #2

Tom McCloskey
McCloskey Consultants
420 Sycamore Valley Road West
Danville, California 94526
Tel: 925 786 2667
Email: tom@mccloskeyconsultants.com

RE: Los Altos High School

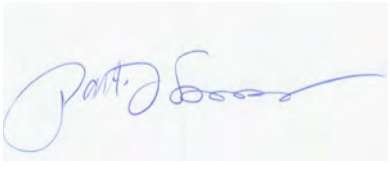
Work Order No.: 1910268

Dear Tom McCloskey:

Torrent Laboratory, Inc. received 3 sample(s) on October 29, 2019 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991 If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.



Patti L Sandrock
QA Officer

October 30, 2019
Date

Date: 10/30/2019

Client: McCloskey Consultants

Project: Los Altos High School

Work Order: 1910268

CASE NARRATIVE

Unless otherwise indicated in the following narrative, no issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Torrent LABORATORY, INC.

Sample Result Summary

Report prepared for: Tom McCloskey
McCloskey Consultants

Date Received: 10/29/19
Date Reported: 10/30/19

EX-B-SW-1A 1910268-001

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081B	1	0.19	2.0	6.92	ug/Kg
Dieldrin	SW8081B	1	0.15	2.0	4.29	ug/Kg

EX-B-SW-2A 1910268-002

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081B	1	0.19	2.0	26.3	ug/Kg
Dieldrin	SW8081B	1	0.15	2.0	5.13	ug/Kg
4,4'-DDT	SW8081B	1	0.13	2.0	2.79	ug/Kg

EX-B-B-1A@2' 1910268-003

Parameters:	Analysis Method	DF	MDL	PQL	Results	Unit
4,4'-DDE	SW8081B	1	0.19	2.0	28.0	ug/Kg
Dieldrin	SW8081B	1	0.15	2.0	2.96	ug/Kg
4,4'-DDT	SW8081B	1	0.13	2.0	2.09	ug/Kg

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/29/19, 1:38 pm
Date Reported: 10/30/19

Client Sample ID:	EX-B-SW-1A	**Lab Sample ID:**	1910268-001A
Project Name/Location:	Los Altos High School	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/27/19 / 12:54		
SDG:			

Prep Method:	3546_OCP	**Prep Batch Date/Time:**	10/29/19 3:27:00PM
Prep Batch ID:	1117791	**Prep Analyst:**	SNARASIMHAN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
alpha-BHC	SW8081B	1	0.13	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
gamma-BHC (Lindane)	SW8081B	1	0.16	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
beta-BHC	SW8081B	1	0.32	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
delta-BHC	SW8081B	1	0.16	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
Heptachlor	SW8081B	1	0.11	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
Aldrin	SW8081B	1	0.20	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
Heptachlor Epoxide	SW8081B	1	0.078	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
gamma-Chlordane	SW8081B	1	0.16	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
alpha-Chlordane	SW8081B	1	0.17	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
4,4'-DDE	SW8081B	1	0.19	2.0	**6.92**		ug/Kg	10/29/19	18:17	LA	443484
Endosulfan I	SW8081B	1	0.18	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
Dieldrin	SW8081B	1	0.15	2.0	**4.29**		ug/Kg	10/29/19	18:17	LA	443484
Endrin	SW8081B	1	0.19	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
4,4'-DDD	SW8081B	1	0.57	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
Endosulfan II	SW8081B	1	0.58	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
4,4'-DDT	SW8081B	1	0.13	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
Endrin Aldehyde	SW8081B	1	0.15	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
Methoxychlor	SW8081B	1	0.20	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
Endosulfan Sulfate	SW8081B	1	0.12	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
Endrin Ketone	SW8081B	1	0.094	2.0	ND		ug/Kg	10/29/19	18:17	LA	443484
Chlordane	SW8081B	1	2.1	20	ND		ug/Kg	10/29/19	18:17	LA	443484
Toxaphene	SW8081B	1	8.5	50	ND		ug/Kg	10/29/19	18:17	LA	443484
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**85.8**		%	10/29/19	18:17	LA	443484
DCBP (S)	SW8081B		38 - 135		**82.7**		%	10/29/19	18:17	LA	443484

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/29/19, 1:38 pm
Date Reported: 10/30/19

Client Sample ID:	EX-B-SW-2A	**Lab Sample ID:**	1910268-002A
Project Name/Location:	Los Altos High School	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/27/19 / 12:57		
SDG:			

Prep Method:	3546_OCP	**Prep Batch Date/Time:**	10/29/19 3:27:00PM
Prep Batch ID:	1117791	**Prep Analyst:**	SNARASIMHAN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
alpha-BHC	SW8081B	1	0.13	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
gamma-BHC (Lindane)	SW8081B	1	0.16	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
beta-BHC	SW8081B	1	0.32	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
delta-BHC	SW8081B	1	0.16	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
Heptachlor	SW8081B	1	0.11	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
Aldrin	SW8081B	1	0.20	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
Heptachlor Epoxide	SW8081B	1	0.078	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
gamma-Chlordane	SW8081B	1	0.16	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
alpha-Chlordane	SW8081B	1	0.17	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
4,4'-DDE	SW8081B	1	0.19	2.0	**26.3**		ug/Kg	10/29/19	18:30	LA	443484
Endosulfan I	SW8081B	1	0.18	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
Dieldrin	SW8081B	1	0.15	2.0	**5.13**		ug/Kg	10/29/19	18:30	LA	443484
Endrin	SW8081B	1	0.19	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
4,4'-DDD	SW8081B	1	0.57	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
Endosulfan II	SW8081B	1	0.58	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
4,4'-DDT	SW8081B	1	0.13	2.0	**2.79**		ug/Kg	10/29/19	18:30	LA	443484
Endrin Aldehyde	SW8081B	1	0.15	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
Methoxychlor	SW8081B	1	0.20	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
Endosulfan Sulfate	SW8081B	1	0.12	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
Endrin Ketone	SW8081B	1	0.094	2.0	ND		ug/Kg	10/29/19	18:30	LA	443484
Chlordane	SW8081B	1	2.1	20	ND		ug/Kg	10/29/19	18:30	LA	443484
Toxaphene	SW8081B	1	8.5	50	ND		ug/Kg	10/29/19	18:30	LA	443484
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**87.7**		%	10/29/19	18:30	LA	443484
DCBP (S)	SW8081B		38 - 135		**83.0**		%	10/29/19	18:30	LA	443484

Torrent LABORATORY, INC.

SAMPLE RESULTS

Report prepared for: Tom McCloskey
McCloskey Consultants

Date/Time Received: 10/29/19, 1:38 pm
Date Reported: 10/30/19

Client Sample ID:	EX-B-B-1A@2'	**Lab Sample ID:**	1910268-003A
Project Name/Location:	Los Altos High School	**Sample Matrix:**	Soil
Project Number:			
Date/Time Sampled:	10/27/19 / 13:00		
SDG:			

Prep Method:	3546_OCP	**Prep Batch Date/Time:**	10/29/19 3:27:00PM
Prep Batch ID:	1117791	**Prep Analyst:**	SNARASIMHAN

Parameters:	Analysis Method	DF	MDL	PQL	Results	Q	Units	Analyzed	Time	By	Analytical Batch
alpha-BHC	SW8081B	1	0.13	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
gamma-BHC (Lindane)	SW8081B	1	0.16	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
beta-BHC	SW8081B	1	0.32	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
delta-BHC	SW8081B	1	0.16	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
Heptachlor	SW8081B	1	0.11	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
Aldrin	SW8081B	1	0.20	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
Heptachlor Epoxide	SW8081B	1	0.078	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
gamma-Chlordane	SW8081B	1	0.16	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
alpha-Chlordane	SW8081B	1	0.17	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
4,4'-DDE	SW8081B	1	0.19	2.0	**28.0**		ug/Kg	10/29/19	18:44	LA	443484
Endosulfan I	SW8081B	1	0.18	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
Dieldrin	SW8081B	1	0.15	2.0	**2.96**		ug/Kg	10/29/19	18:44	LA	443484
Endrin	SW8081B	1	0.19	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
4,4'-DDD	SW8081B	1	0.57	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
Endosulfan II	SW8081B	1	0.58	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
4,4'-DDT	SW8081B	1	0.13	2.0	**2.09**		ug/Kg	10/29/19	18:44	LA	443484
Endrin Aldehyde	SW8081B	1	0.15	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
Methoxychlor	SW8081B	1	0.20	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
Endosulfan Sulfate	SW8081B	1	0.12	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
Endrin Ketone	SW8081B	1	0.094	2.0	ND		ug/Kg	10/29/19	18:44	LA	443484
Chlordane	SW8081B	1	2.1	20	ND		ug/Kg	10/29/19	18:44	LA	443484
Toxaphene	SW8081B	1	8.5	50	ND		ug/Kg	10/29/19	18:44	LA	443484
			Acceptance Limits								
TCMX (S)	SW8081B		48 - 125		**88.4**		%	10/29/19	18:44	LA	443484
DCBP (S)	SW8081B		38 - 135		**86.6**		%	10/29/19	18:44	LA	443484

Torrent LABORATORY, INC.

MB Summary Report

Work Order:	1910268	**Prep Method:**	3546_OCP	**Prep Date:**	10/29/19	**Prep Batch:**	1117791
Matrix:	Soil	**Analytical Method:**	SW8081B	**Analyzed Date:**	10/29/2019	**Analytical Batch:**	443484
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
alpha-BHC	0.13	2.0	ND	
gamma-BHC (Lindane)	0.16	2.0	ND	
beta-BHC	0.32	2.0	ND	
delta-BHC	0.16	2.0	ND	
Heptachlor	0.11	2.0	ND	
Aldrin	0.20	2.0	ND	
Heptachlor Epoxide	0.078	2.0	ND	
gamma-Chlordane	0.16	2.0	ND	
alpha-Chlordane	0.17	2.0	ND	
4,4'-DDE	0.19	2.0	ND	
Endosulfan I	0.18	2.0	ND	
Dieldrin	0.15	2.0	ND	
Endrin	0.19	2.0	ND	
4,4'-DDD	0.57	2.0	ND	
Endosulfan II	0.58	2.0	ND	
4,4'-DDT	0.13	2.0	ND	
Endrin Aldehyde	0.15	2.0	ND	
Methoxychlor	0.20	2.0	ND	
Endosulfan Sulfate	0.12	2.0	ND	
Endrin Ketone	0.094	2.0	ND	
Chlordane	2.1	20	ND	
Toxaphene	8.5	50	ND	
TCMX (S)			96.2	
DCBP (S)			92.3	

Torrent LABORATORY, INC.

LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1910268	**Prep Method:**	3546_OCP	**Prep Date:**	10/29/19	**Prep Batch:**	1117791
Matrix:	Soil	**Analytical Method:**	SW8081B	**Analyzed Date:**	10/29/2019	**Analytical Batch:**	443484
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
gamma-BHC (Lindane)	0.16	2.0	ND	40	100	98.6	1.51	25 - 135	30	
Heptachlor	0.11	2.0	ND	40	101	101	0.247	40 - 130	30	
Aldrin	0.20	2.0	ND	40	99.1	98.4	0.760	25 - 140	30	
Dieldrin	0.15	2.0	ND	40	96.2	95.3	1.04	60 - 130	30	
Endrin	0.19	2.0	ND	40	102	101	0.988	55 - 135	30	
4,4'-DDT	0.13	2.0	ND	40	101	101	0.248	45 - 140	30	
TCMX (S)				100	100	99.2		48 - 125		
DCBP (S)				100	97.6	94.7		38 - 135		

Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit/Reporting Limit/Limit of Quantitation (PQL/RL/LOQ) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs/RLs/LODs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - **mg/L** and ***mg/Kg*** (equivalent to PPM - parts per million in **liquid** and ***solid***), **ug/L** and ***ug/Kg*** (equivalent to PPB - parts per billion in **liquid** and ***solid***), **ug/m3**, ***mg/m3***, **ppbv** and ***ppmv*** (all units of measure for reporting concentrations in air), **%** (equivalent to 10000 ppm or 1,000,000 ppb), **ug/Wipe** (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

B - Indicates when the analyte is found in the associated method or preparation blank
D - Surrogate is not recoverable due to the necessary dilution of the sample
E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
H- Indicates that the recommended holding time for the analyte or compound has been exceeded
J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
NA - Not Analyzed
N/A - Not Applicable
ND - Not Detected at a concentration greater than the PQL/RL or, if reported to the MDL, at greater than the MDL.
NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative
X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.

Sample Receipt Checklist

Client Name: McCloskey Consultants

Project Name: Los Altos High School

Work Order No.: 1910268

Date and Time Received: 10/29/2019 1:38:00PM

Received By: Katherene Evans

Physically Logged By: Helena Ueng

Checklist Completed By: Helena Ueng

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?	Yes
Chain of custody signed when relinquished and received?	Yes
Chain of custody agrees with sample labels?	Yes
Custody seals intact on sample bottles?	Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Not Present
Shipping Container/Cooler In Good Condition?	Yes
Samples in proper container/bottle?	Yes
Samples containers intact?	Yes
Sufficient sample volume for indicated test?	Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes
Container/Temp Blank temperature in compliance?	Temperature: 7.0 °C
Water-VOA vials have zero headspace?	No VOA vials submitted
Water-pH acceptable upon receipt?	N/A

pH Checked by: N/A

pH Adjusted by: N/A

Comments:

Samples transported on ice

Login Summary Report

Client ID: TL5324 McCloskey Consultants

Project Name: Los Altos High School

Project # :

Report Due Date: 10/30/2019

QC Level: II

TAT Requested: 1 Day Rush:1

Date Received: 10/29/2019

Time Received: 1:38 pm

Comments:

Work Order # : ***1910268***

WO Sample ID	Client Sample ID	Collection Date/Time	Matrix	Scheduled Disposal	Sample On Hold	Test On Hold	Requested Tests	Subbed
1910268-001A	EX-B-SW-1A	10/27/19 12:54	Soil	04/24/20			Pest_S_8081OCP	
Sample Note:	*1-DAY RUSH! OCPs							
1910268-002A	EX-B-SW-2A	10/27/19 12:57	Soil	04/24/20			Pest_S_8081OCP	
1910268-003A	EX-B-B-1A@2'	10/27/19 13:00	Soil	04/24/20			Pest_S_8081OCP	

Torrent LABORATORY, INC.

Torrent LABORATORY, INC.
483 Sinclair Frontage Road
Milpitas, CA 95035
Phone: 408.263.5258
FAX: 408.263.8293
www.torrentlab.com

CHAIN OF CUSTODY

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY •

LAB WORK ORDER NO: 1910268

Company Name: MCI - McCloskey Consultants	☐	☒ Env. ☐ Special	Project #: PO #:
Address: 420 Sycamore Valley Rd West			Project Name: Los Altos High School.
City: Danville	State: CA	Zip Code: 94526	Comments:
Telephone:	Cell:		SAMPLER: Chris Vertin Quote #:
REPORT TO: Tom McCloskey / Chris Vertin	BILL TO: MCI-		EMAIL:

TURNAROUND TIME: ☐ 10 Work Days ☐ 4 Work Days ☒ 1 Work Day ☐ 7 Work Days ☐ 3 Work Days ☐ Noon - Nxt Day ☐ 5 Work Days ☐ 2 Work Days ☐ 2 - 8 Hours

SAMPLE TYPE: ☐ Storm Water ☐ Air ☐ Waste Water ☐ Wipe ☐ Ground Water ☐ Other ☒ Soil ☐ Product / Bulk

REPORT FORMAT: ☐ Level II - Std. ☐ Excel - EDD ☐ EDF ☐ Std.-EDD ☐ QC Level III ☐ QC Level IV

ANALYSIS REQUESTED

LAB ID	CANISTER I.D.	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	OCPs	REMARKS
001A		EX-B-SW-1A	10/29/19 12:54	Soil	1	40z glass Jar	X	
002A		EX-B-SW-2A	12:57				X	
003A		EX-B-B-1A@2'	13:00				X	

RUSH
1-DAY

	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:
1		Chris Vertin	10/29/19	13:38	Kathie	EVB	10-29-19	13:38
2	Relinquished By:	Print:	Date:	Time:	Received By:	Print:	Date:	Time:

Were Samples Received in Good Condition? ☑ Yes ☐ NO Samples on Ice? ☑ Yes ☐ NO Method of Shipment: DLeff Sample seals intact? ☐ Yes ☐ NO ☑ N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: _____ Date: _____ Labeled By: _____ Date: _____ Temp 7°C #2 °C

Galeb 4432001-3

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number CAG000026124	2. Page 1 of 1	3. Emergency Response Phone 800-676-1066	4. Manifest Tracking Number 013331708 FLE

GENERATOR

5. Generator's Name and Mailing Address
MTN VIEW LOS ALTOS HIGH SCHOOL DIST.
1299 BRYANT STREET
MOUNTAIN VIEW, CA 94403 USA
925-766-1582

Generator's Site Address (if different than mailing address)
201 ALMOND AVE
LOS ALTOS, CA 94022 USA

Generator's Phone:

6. Transporter 1 Company Name ENVIRONMENTAL SERVICES #1715 — U.S. EPA ID Number CAD982523433

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Highway 95, 11 Miles S of Beatty
Beatty, NV 89003 USA
775-553-2203

U.S. EPA ID Number NVT330010000

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON RCRA HAZARDOUS WASTE SOLID (SOIL WITH TRACE METALS) RV	01	CM	20	T	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
PFW0026174-0
Bin # 10013

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month 10 Day 31 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name Tony Renteria — Signature — Month 10 Day 31 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

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19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H039			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name Brendan Mura — Signature — Month 11 Day 01 Year 19

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Galeb 4432001-3

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAC003026124
2. Page 1 of: 1
3. Emergency Response Phone: 800-675-1066
4. Manifest Tracking Number: 013331715 FLE

5. Generator's Name and Mailing Address:
MTN VIEW LOS ALTOS HIGH SCHOOL DIST.
1299 BRYANT STREET
MOUNTAIN VIEW, CA 94403 USA
925-766-1582

Generator's Site Address (if different than mailing address):
201 ALMOND AVE
LOS ALTOS, CA 94022 USA

Generator's Phone:

6. Transporter 1 Company Name: DILLARD ENVIRONMENTAL SERVICES #1715 — U.S. EPA ID Number: CAD982523433

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: U.S. EPA ID Number: NVT330010000
US ECOLOGY - NEVADA
Highway 95, 11 Miles S of Beatty
Beatty, NV 89003 USA
Facility's Phone: 775 553 2203

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON RCRA HAZARDOUS WASTE SOLID (SOIL WITH TRACE METALS)	01	CM	20	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
PF#070287617-0 Bin # 10027

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Mike Woodmanse — Signature: [signature] — Month 10 Day 31 Year 19

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jose Hernandez — Signature: [signature] — Month 10 Day 31 Year 19
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

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18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H039 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Brenda Cardona — Signature: BC — Month 11 Day 1 Year 19

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

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GALEB 4432001-b

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UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number CAC003026124	2. Page 1 of 1	3. Emergency Response Phone 800-575-1066	4. Manifest Tracking Number 013331710 FLE

GENERATOR

5. Generator's Name and Mailing Address
MTN VIEW-LOS ALTOS HIGH SCHOOL DIST.
1299 BRYANT STREET
MOUNTAIN VIEW, CA 94403 USA
925-766-1582
Generator's Phone:

Generator's Site Address (if different than mailing address)
201 ALMOND AVE
LOS ALTOS, CA 94022 USA

6. Transporter 1 Company Name DAILY'S ENVIRONMENTAL SERVICES #1715 — U.S. EPA ID Number CAD982523433

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address NEVADA
Highway 95, 11 Milles S of Beatty
Beatty, NV 89003 USA
Facility's Phone: 775-553-2203
U.S. EPA ID Number NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON RCRA HAZARDOUS WASTE SOLID (SOIL WITH TRACE METALS)	01	CM	20	Y	511
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
PF#070287617-0
BIN # DB7039

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Mike Woolsey — Signature — Month 10 Day 30 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Tony Renshaw — Signature — Month 10 Day 30 Year 19

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

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19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
H039 | 2. | 3. | 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Brian Thompson — Signature — Month 11 Day 11 Year 19

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

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5-7 Galeb 4432001-7

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAC003026124
2. Page 1 of: 1
3. Emergency Response Phone: 800-575-1066
4. Manifest Tracking Number: 013331714 FLE

5. Generator's Name and Mailing Address:
MTN VIEW LOS ALTOS HIGH SCHOOL DIST
1299 BRYANT STREET
MOUNTAIN VIEW, CA 94403 USA
925-766-1582

Generator's Site Address (if different than mailing address):
201 ALMOND AVE
LOS ALTOS, CA 94022 USA

Generator's Phone:

6. Transporter 1 Company Name: DILLARD ENVIRONMENTAL SERVICES #1716 — U.S. EPA ID Number: CAD982523433

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: US ECOLOGY - NEVADA
Highway 95, 11 Miles S of Beatty
Beatty, NV 89003 USA
U.S. EPA ID Number: NVT330010000

Facility's Phone: 775-553-2203

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON RCRA HAZARDOUS WASTE SOLID (SOIL WITH TRACE METALS)	01	CM	20	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
PF# 070267617-0
Bin # DB ~~[illegible]~~ 7037

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Mike Woodworth — Signature: [signature] — Month 10 Day 30 Year 19

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Tony Revolor — Signature: [signature] — Month 10 Day 30 Year 19
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

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19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H039 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Brenda Caudill — Signature: [signature] — Month 11 Day 15 Year 19

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UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	CAC003026124	1	800-675-1066	013331709 FLE

GENERATOR

5. Generator's Name and Mailing Address
MTN VIEW LOS ALTOS HIGH SCHOOL DIST.
1299 BRYANT STREET
MOUNTAIN VIEW, CA 94403 USA
Generator's Phone: 925-785-1562

Generator's Site Address (if different than mailing address)
201 ALMOND AVE
LOS ALTOS, CA 94022 USA

6. Transporter 1 Company Name: DILLARD ENVIRONMENTAL SERVICES #1715 — U.S. EPA ID Number: CAD982523433

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
US ECOLOGY - NEVADA
Highway 95, 11 Miles S of Beatty
Beatty, NV 89003 USA
Facility's Phone: 775-553-2203
U.S. EPA ID Number: NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON RCRA HAZARDOUS WASTE SOLID (SOIL WITH TRACE METALS)	01	CM	20	Y	611
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
PF#070267617-0
BIN # DB 7039

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: M.K. Woolpert — Signature — Month 11 Day 04 Year 19

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Ladies Nuvall — Signature — Month Day 4 Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

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19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H039			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Roxanna Thompson — Signature — Month 11 Day 15 Year 19

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Appendix D

Laboratory Analytical Reports

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

June 17, 2020

McCloskey Consulting - Danville, CA

Sample Delivery Group:	L1227097
Samples Received:	06/09/2020
Project Number:	
Description:	Los Altos High School PEA Sampling

Report To: Tom McCloskey/Chris Vertin
420 Sycamore Valley Rd West
Danville, CA 94526

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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Cn: Case Narrative 6
Ds: Detection Summary 7
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BP-1A L1227097-01 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 09:15 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490976	1	06/11/20 22:20	06/11/20 22:31	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 19:17	TRB	Mt. Juliet, TN

BP-1B L1227097-02 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 09:18 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 19:35	TRB	Mt. Juliet, TN

BP-2 L1227097-03 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 09:10 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 19:38	TRB	Mt. Juliet, TN

BP-3 L1227097-04 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 09:50 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 19:47	TRB	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1492151	1	06/16/20 00:03	06/16/20 11:52	HMH	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1492151	1	06/16/20 00:03	06/16/20 10:23	MTJ	Mt. Juliet, TN

BP-4 L1227097-05 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 09:45 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 19:50	TRB	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1492151	1	06/16/20 00:03	06/16/20 12:05	HMH	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1492151	1	06/16/20 00:03	06/16/20 10:37	MTJ	Mt. Juliet, TN

BP-5 L1227097-06 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 09:34 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 19:53	TRB	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1492151	1	06/16/20 00:03	06/16/20 12:17	HMH	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1492151	1	06/16/20 00:03	06/16/20 10:50	MTJ	Mt. Juliet, TN

BP-6 L1227097-07 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 12:57 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 19:56	TRB	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1491271	1	06/12/20 08:21	06/13/20 12:05	MTJ	Mt. Juliet, TN

BP-7 (0.75-1) L1227097-08 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 11:47 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 19:59	TRB	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1493045	1	06/16/20 06:28	06/16/20 12:29	HMH	Mt. Juliet, TN

BP-8 (0.5-1) L1227097-09 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 11:38 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 20:02	TRB	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1493045	1	06/16/20 06:28	06/16/20 12:42	HMH	Mt. Juliet, TN

BP-9 (0.5-1) L1227097-10 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 11:30 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 20:05	TRB	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1493045	1	06/16/20 06:28	06/16/20 12:54	HMH	Mt. Juliet, TN

BP-10 L1227097-11 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 12:50 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 20:08	TRB	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082	WG1491271	1	06/12/20 08:21	06/13/20 12:46	MTJ	Mt. Juliet, TN

AG-1A L1227097-12 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 10:56 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490978	1	06/11/20 21:48	06/11/20 22:02	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 20:11	TRB	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1493045	1	06/16/20 06:28	06/16/20 13:06	HMH	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

AG-1B L1227097-13 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 10:58 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490978	1	06/11/20 21:48	06/11/20 22:02	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	1	06/11/20 14:49	06/12/20 20:14	TRB	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1493045	1	06/16/20 06:28	06/16/20 13:19	HMH	Mt. Juliet, TN

AG-2 L1227097-14 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 15:07 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490978	1	06/11/20 21:48	06/11/20 22:02	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490560	5	06/11/20 14:49	06/13/20 16:41	CCE	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1493045	1	06/16/20 06:28	06/16/20 13:31	HMH	Mt. Juliet, TN

AG-3 L1227097-15 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 14:06 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490978	1	06/11/20 21:48	06/11/20 22:02	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490492	1	06/10/20 18:35	06/12/20 15:30	TRB	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1493045	1	06/16/20 06:28	06/16/20 13:43	HMH	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1493045	1	06/16/20 06:28	06/17/20 02:15	HMH	Mt. Juliet, TN

AG-4 L1227097-16 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 14:30 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490978	1	06/11/20 21:48	06/11/20 22:02	KDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1490492	1	06/10/20 18:35	06/12/20 15:38	TRB	Mt. Juliet, TN
Pesticides (GC) by Method 8081	WG1493045	1	06/16/20 06:28	06/16/20 13:56	HMH	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Metals (ICP) by Method 6010B

Client ID	Lab Sample ID	Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
			mg/kg		mg/kg	mg/kg		date / time	
BP-1A	L1227097-01	Lead	38.7	J5 O1	0.281	0.562	1	06/12/2020 19:17	WG1490560
BP-1B	L1227097-02	Lead	33.9		0.277	0.555	1	06/12/2020 19:35	WG1490560
BP-2	L1227097-03	Lead	159		0.283	0.567	1	06/12/2020 19:38	WG1490560
BP-3	L1227097-04	Lead	3.99		0.280	0.561	1	06/12/2020 19:47	WG1490560
BP-5	L1227097-06	Lead	1.68		0.280	0.560	1	06/12/2020 19:53	WG1490560
BP-6	L1227097-07	Lead	21.0		0.285	0.570	1	06/12/2020 19:56	WG1490560
BP-7 (0.75-1)	L1227097-08	Lead	1.95		0.287	0.573	1	06/12/2020 19:59	WG1490560
BP-8 (0.5-1)	L1227097-09	Lead	73.6		0.293	0.586	1	06/12/2020 20:02	WG1490560
BP-9 (0.5-1)	L1227097-10	Lead	13.0		0.293	0.586	1	06/12/2020 20:05	WG1490560
BP-10	L1227097-11	Lead	21.6		0.301	0.601	1	06/12/2020 20:08	WG1490560
AG-1A	L1227097-12	Lead	21.6		0.318	0.636	1	06/12/2020 20:11	WG1490560
AG-1B	L1227097-13	Arsenic	1.58	J	1.19	2.38	1	06/12/2020 20:14	WG1490560
AG-1B	L1227097-13	Lead	26.4		0.297	0.594	1	06/12/2020 20:14	WG1490560
AG-3	L1227097-15	Arsenic	4.36		1.09	2.18	1	06/12/2020 15:30	WG1490492
AG-3	L1227097-15	Lead	34.8		0.272	0.544	1	06/12/2020 15:30	WG1490492
AG-4	L1227097-16	Arsenic	2.17	J	1.10	2.19	1	06/12/2020 15:38	WG1490492
AG-4	L1227097-16	Lead	16.2		0.274	0.548	1	06/12/2020 15:38	WG1490492

Pesticides (GC) by Method 8081

Client ID	Lab Sample ID	Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
			mg/kg		mg/kg	mg/kg		date / time	
BP-3	L1227097-04	4,4-DDE	0.00682	J	0.00411	0.0224	1	06/16/2020 11:52	WG1492151
BP-8 (0.5-1)	L1227097-09	4,4-DDE	0.0136	J	0.00429	0.0234	1	06/16/2020 12:42	WG1493045
BP-9 (0.5-1)	L1227097-10	4,4-DDE	0.0117	J	0.00429	0.0234	1	06/16/2020 12:54	WG1493045
AG-1A	L1227097-12	4,4-DDE	0.00882	J	0.00465	0.0254	1	06/16/2020 13:06	WG1493045
AG-1B	L1227097-13	4,4-DDE	0.00765	J	0.00435	0.0238	1	06/16/2020 13:19	WG1493045
AG-3	L1227097-15	4,4-DDE	0.252		0.00399	0.0218	1	06/16/2020 13:43	WG1493045
AG-3	L1227097-15	4,4-DDT	0.0302		0.00683	0.0218	1	06/17/2020 02:15	WG1493045
AG-4	L1227097-16	4,4-DDE	0.0480		0.00401	0.0219	1	06/16/2020 13:56	WG1493045

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.9		1	06/11/2020 22:31	WG1490976

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	38.7	J5 O1	0.281	0.562	1	06/12/2020 19:17	WG1490560

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.1		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	33.9		0.277	0.555	1	06/12/2020 19:35	WG1490560

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.2		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	159		0.283	0.567	1	06/12/2020 19:38	WG1490560

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.2		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	U		1.12	2.24	1	06/12/2020 19:47	WG1490560
Lead	3.99		0.280	0.561	1	06/12/2020 19:47	WG1490560

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00422	0.0224	1	06/16/2020 11:52	WG1492151
Alpha BHC	U		0.00413	0.0224	1	06/16/2020 11:52	WG1492151
Beta BHC	U		0.00425	0.0224	1	06/16/2020 11:52	WG1492151
Delta BHC	U		0.00388	0.0224	1	06/16/2020 11:52	WG1492151
Gamma BHC	U		0.00386	0.0224	1	06/16/2020 11:52	WG1492151
4,4-DDD	U		0.00415	0.0224	1	06/16/2020 11:52	WG1492151
4,4-DDE	0.00682	J	0.00411	0.0224	1	06/16/2020 11:52	WG1492151
4,4-DDT	U		0.00703	0.0224	1	06/16/2020 11:52	WG1492151
Dieldrin	U		0.00386	0.0224	1	06/16/2020 11:52	WG1492151
Endosulfan I	U		0.00407	0.0224	1	06/16/2020 11:52	WG1492151
Endosulfan II	U		0.00376	0.0224	1	06/16/2020 11:52	WG1492151
Endosulfan sulfate	U		0.00408	0.0224	1	06/16/2020 11:52	WG1492151
Endrin	U		0.00393	0.0224	1	06/16/2020 11:52	WG1492151
Endrin aldehyde	U		0.00380	0.0224	1	06/16/2020 11:52	WG1492151
Endrin ketone	U		0.00798	0.0224	1	06/16/2020 11:52	WG1492151
Heptachlor	U		0.00480	0.0224	1	06/16/2020 11:52	WG1492151
Heptachlor epoxide	U		0.00380	0.0224	1	06/16/2020 11:52	WG1492151
Hexachlorobenzene	U		0.00388	0.0224	1	06/16/2020 11:52	WG1492151
Methoxychlor	U		0.00543	0.0224	1	06/16/2020 11:52	WG1492151
Chlordane	U		0.116	0.337	1	06/16/2020 11:52	WG1492151
Toxaphene	U		0.139	0.449	1	06/16/2020 11:52	WG1492151
(S) Decachlorobiphenyl	*58.3*			*10.0-135*		*06/16/2020 11:52*	WG1492151
(S) Tetrachloro-m-xylene	*59.7*			*10.0-139*		*06/16/2020 11:52*	WG1492151

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
PCB 1016	U		0.0132	0.0381	1	06/16/2020 10:23	WG1492151
PCB 1221	U		0.0132	0.0381	1	06/16/2020 10:23	WG1492151
PCB 1232	U		0.0132	0.0381	1	06/16/2020 10:23	WG1492151
PCB 1242	U		0.0132	0.0381	1	06/16/2020 10:23	WG1492151
PCB 1248	U		0.00828	0.0191	1	06/16/2020 10:23	WG1492151
PCB 1254	U		0.00828	0.0191	1	06/16/2020 10:23	WG1492151
PCB 1260	U		0.00828	0.0191	1	06/16/2020 10:23	WG1492151
(S) Decachlorobiphenyl	*67.7*			*10.0-135*		*06/16/2020 10:23*	WG1492151
(S) Tetrachloro-m-xylene	*65.5*			*10.0-139*		*06/16/2020 10:23*	WG1492151

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.0		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	U		1.28	2.57	1	06/12/2020 19:50	WG1490560
Lead	U		0.321	0.641	1	06/12/2020 19:50	WG1490560

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00482	0.0257	1	06/16/2020 12:05	WG1492151
Alpha BHC	U		0.00472	0.0257	1	06/16/2020 12:05	WG1492151
Beta BHC	U		0.00486	0.0257	1	06/16/2020 12:05	WG1492151
Delta BHC	U		0.00444	0.0257	1	06/16/2020 12:05	WG1492151
Gamma BHC	U		0.00441	0.0257	1	06/16/2020 12:05	WG1492151
4,4-DDD	U		0.00475	0.0257	1	06/16/2020 12:05	WG1492151
4,4-DDE	U		0.00469	0.0257	1	06/16/2020 12:05	WG1492151
4,4-DDT	U		0.00804	0.0257	1	06/16/2020 12:05	WG1492151
Dieldrin	U		0.00441	0.0257	1	06/16/2020 12:05	WG1492151
Endosulfan I	U		0.00466	0.0257	1	06/16/2020 12:05	WG1492151
Endosulfan II	U		0.00430	0.0257	1	06/16/2020 12:05	WG1492151
Endosulfan sulfate	U		0.00467	0.0257	1	06/16/2020 12:05	WG1492151
Endrin	U		0.00449	0.0257	1	06/16/2020 12:05	WG1492151
Endrin aldehyde	U		0.00435	0.0257	1	06/16/2020 12:05	WG1492151
Endrin ketone	U		0.00912	0.0257	1	06/16/2020 12:05	WG1492151
Heptachlor	U		0.00549	0.0257	1	06/16/2020 12:05	WG1492151
Heptachlor epoxide	U		0.00435	0.0257	1	06/16/2020 12:05	WG1492151
Hexachlorobenzene	U		0.00444	0.0257	1	06/16/2020 12:05	WG1492151
Methoxychlor	U		0.00621	0.0257	1	06/16/2020 12:05	WG1492151
Chlordane	U		0.132	0.385	1	06/16/2020 12:05	WG1492151
Toxaphene	U		0.159	0.513	1	06/16/2020 12:05	WG1492151
(S) Decachlorobiphenyl	*51.0*			*10.0-135*		*06/16/2020 12:05*	WG1492151
(S) Tetrachloro-m-xylene	*64.5*			*10.0-139*		*06/16/2020 12:05*	WG1492151

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
PCB 1016	U		0.0151	0.0436	1	06/16/2020 10:37	WG1492151
PCB 1221	U		0.0151	0.0436	1	06/16/2020 10:37	WG1492151
PCB 1232	U		0.0151	0.0436	1	06/16/2020 10:37	WG1492151
PCB 1242	U		0.0151	0.0436	1	06/16/2020 10:37	WG1492151
PCB 1248	U		0.00947	0.0218	1	06/16/2020 10:37	WG1492151
PCB 1254	U		0.00947	0.0218	1	06/16/2020 10:37	WG1492151
PCB 1260	U		0.00947	0.0218	1	06/16/2020 10:37	WG1492151
(S) Decachlorobiphenyl	*52.1*			*10.0-135*		*06/16/2020 10:37*	WG1492151
(S) Tetrachloro-m-xylene	*63.4*			*10.0-139*		*06/16/2020 10:37*	WG1492151

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.2		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	U		1.12	2.24	1	06/12/2020 19:53	WG1490560
Lead	1.68		0.280	0.560	1	06/12/2020 19:53	WG1490560

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00421	0.0224	1	06/16/2020 12:17	WG1492151
Alpha BHC	U		0.00413	0.0224	1	06/16/2020 12:17	WG1492151
Beta BHC	U		0.00425	0.0224	1	06/16/2020 12:17	WG1492151
Delta BHC	U		0.00388	0.0224	1	06/16/2020 12:17	WG1492151
Gamma BHC	U		0.00386	0.0224	1	06/16/2020 12:17	WG1492151
4,4-DDD	U		0.00415	0.0224	1	06/16/2020 12:17	WG1492151
4,4-DDE	U		0.00410	0.0224	1	06/16/2020 12:17	WG1492151
4,4-DDT	U		0.00703	0.0224	1	06/16/2020 12:17	WG1492151
Dieldrin	U		0.00386	0.0224	1	06/16/2020 12:17	WG1492151
Endosulfan I	U		0.00407	0.0224	1	06/16/2020 12:17	WG1492151
Endosulfan II	U		0.00376	0.0224	1	06/16/2020 12:17	WG1492151
Endosulfan sulfate	U		0.00408	0.0224	1	06/16/2020 12:17	WG1492151
Endrin	U		0.00392	0.0224	1	06/16/2020 12:17	WG1492151
Endrin aldehyde	U		0.00380	0.0224	1	06/16/2020 12:17	WG1492151
Endrin ketone	U		0.00797	0.0224	1	06/16/2020 12:17	WG1492151
Heptachlor	U		0.00480	0.0224	1	06/16/2020 12:17	WG1492151
Heptachlor epoxide	U		0.00380	0.0224	1	06/16/2020 12:17	WG1492151
Hexachlorobenzene	U		0.00388	0.0224	1	06/16/2020 12:17	WG1492151
Methoxychlor	U		0.00543	0.0224	1	06/16/2020 12:17	WG1492151
Chlordane	U		0.115	0.336	1	06/16/2020 12:17	WG1492151
Toxaphene	U		0.139	0.448	1	06/16/2020 12:17	WG1492151
(S) Decachlorobiphenyl	*67.1*			*10.0-135*		*06/16/2020 12:17*	WG1492151
(S) Tetrachloro-m-xylene	*72.2*			*10.0-139*		*06/16/2020 12:17*	WG1492151

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
PCB 1016	U		0.0132	0.0381	1	06/16/2020 10:50	WG1492151
PCB 1221	U		0.0132	0.0381	1	06/16/2020 10:50	WG1492151
PCB 1232	U		0.0132	0.0381	1	06/16/2020 10:50	WG1492151
PCB 1242	U		0.0132	0.0381	1	06/16/2020 10:50	WG1492151
PCB 1248	U		0.00827	0.0191	1	06/16/2020 10:50	WG1492151
PCB 1254	U		0.00827	0.0191	1	06/16/2020 10:50	WG1492151
PCB 1260	U		0.00827	0.0191	1	06/16/2020 10:50	WG1492151
(S) Decachlorobiphenyl	*69.0*			*10.0-135*		*06/16/2020 10:50*	WG1492151
(S) Tetrachloro-m-xylene	*73.4*			*10.0-139*		*06/16/2020 10:50*	WG1492151

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.8		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	21.0		0.285	0.570	1	06/12/2020 19:56	WG1490560

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
PCB 1016	U		0.0134	0.0387	1	06/13/2020 12:05	WG1491271
PCB 1221	U		0.0134	0.0387	1	06/13/2020 12:05	WG1491271
PCB 1232	U		0.0134	0.0387	1	06/13/2020 12:05	WG1491271
PCB 1242	U		0.0134	0.0387	1	06/13/2020 12:05	WG1491271
PCB 1248	U		0.00841	0.0194	1	06/13/2020 12:05	WG1491271
PCB 1254	U		0.00841	0.0194	1	06/13/2020 12:05	WG1491271
PCB 1260	U		0.00841	0.0194	1	06/13/2020 12:05	WG1491271
(S) Decachlorobiphenyl	*99.5*			*10.0-135*		*06/13/2020 12:05*	WG1491271
(S) Tetrachloro-m-xylene	*93.8*			*10.0-139*		*06/13/2020 12:05*	WG1491271

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.2		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	1.95		0.287	0.573	1	06/12/2020 19:59	WG1490560

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00431	0.0229	1	06/16/2020 12:29	WG1493045
Alpha BHC	U		0.00422	0.0229	1	06/16/2020 12:29	WG1493045
Beta BHC	U		0.00434	0.0229	1	06/16/2020 12:29	WG1493045
Delta BHC	U		0.00397	0.0229	1	06/16/2020 12:29	WG1493045
Gamma BHC	U		0.00394	0.0229	1	06/16/2020 12:29	WG1493045
4,4-DDD	U		0.00424	0.0229	1	06/16/2020 12:29	WG1493045
4,4-DDE	U		0.00419	0.0229	1	06/16/2020 12:29	WG1493045
4,4-DDT	U		0.00719	0.0229	1	06/16/2020 12:29	WG1493045
Dieldrin	U		0.00394	0.0229	1	06/16/2020 12:29	WG1493045
Endosulfan I	U		0.00416	0.0229	1	06/16/2020 12:29	WG1493045
Endosulfan II	U		0.00384	0.0229	1	06/16/2020 12:29	WG1493045
Endosulfan sulfate	U		0.00417	0.0229	1	06/16/2020 12:29	WG1493045
Endrin	U		0.00401	0.0229	1	06/16/2020 12:29	WG1493045
Endrin aldehyde	U		0.00389	0.0229	1	06/16/2020 12:29	WG1493045
Endrin ketone	U		0.00815	0.0229	1	06/16/2020 12:29	WG1493045
Heptachlor	U		0.00491	0.0229	1	06/16/2020 12:29	WG1493045
Heptachlor epoxide	U		0.00389	0.0229	1	06/16/2020 12:29	WG1493045
Hexachlorobenzene	U		0.00397	0.0229	1	06/16/2020 12:29	WG1493045
Methoxychlor	U		0.00555	0.0229	1	06/16/2020 12:29	WG1493045
Chlordane	U		0.118	0.344	1	06/16/2020 12:29	WG1493045
Toxaphene	U		0.142	0.458	1	06/16/2020 12:29	WG1493045
(S) Decachlorobiphenyl	*66.2*			*10.0-135*		*06/16/2020 12:29*	WG1493045
(S) Tetrachloro-m-xylene	*73.0*			*10.0-139*		*06/16/2020 12:29*	WG1493045

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.4		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	73.6		0.293	0.586	1	06/12/2020 20:02	WG1490560

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00440	0.0234	1	06/16/2020 12:42	WG1493045
Alpha BHC	U		0.00431	0.0234	1	06/16/2020 12:42	WG1493045
Beta BHC	U		0.00444	0.0234	1	06/16/2020 12:42	WG1493045
Delta BHC	U		0.00405	0.0234	1	06/16/2020 12:42	WG1493045
Gamma BHC	U		0.00403	0.0234	1	06/16/2020 12:42	WG1493045
4,4-DDD	U		0.00433	0.0234	1	06/16/2020 12:42	WG1493045
4,4-DDE	0.0136	J	0.00429	0.0234	1	06/16/2020 12:42	WG1493045
4,4-DDT	U		0.00735	0.0234	1	06/16/2020 12:42	WG1493045
Dieldrin	U		0.00403	0.0234	1	06/16/2020 12:42	WG1493045
Endosulfan I	U		0.00425	0.0234	1	06/16/2020 12:42	WG1493045
Endosulfan II	U		0.00392	0.0234	1	06/16/2020 12:42	WG1493045
Endosulfan sulfate	U		0.00426	0.0234	1	06/16/2020 12:42	WG1493045
Endrin	U		0.00410	0.0234	1	06/16/2020 12:42	WG1493045
Endrin aldehyde	U		0.00397	0.0234	1	06/16/2020 12:42	WG1493045
Endrin ketone	U		0.00833	0.0234	1	06/16/2020 12:42	WG1493045
Heptachlor	U		0.00501	0.0234	1	06/16/2020 12:42	WG1493045
Heptachlor epoxide	U		0.00397	0.0234	1	06/16/2020 12:42	WG1493045
Hexachlorobenzene	U		0.00405	0.0234	1	06/16/2020 12:42	WG1493045
Methoxychlor	U		0.00567	0.0234	1	06/16/2020 12:42	WG1493045
Chlordane	U		0.121	0.351	1	06/16/2020 12:42	WG1493045
Toxaphene	U		0.145	0.469	1	06/16/2020 12:42	WG1493045
(S) Decachlorobiphenyl	*66.9*			*10.0-135*		*06/16/2020 12:42*	WG1493045
(S) Tetrachloro-m-xylene	*74.4*			*10.0-139*		*06/16/2020 12:42*	WG1493045

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.3		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	13.0		0.293	0.586	1	06/12/2020 20:05	WG1490560

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00441	0.0234	1	06/16/2020 12:54	WG1493045
Alpha BHC	U		0.00431	0.0234	1	06/16/2020 12:54	WG1493045
Beta BHC	U		0.00444	0.0234	1	06/16/2020 12:54	WG1493045
Delta BHC	U		0.00406	0.0234	1	06/16/2020 12:54	WG1493045
Gamma BHC	U		0.00403	0.0234	1	06/16/2020 12:54	WG1493045
4,4-DDD	U		0.00434	0.0234	1	06/16/2020 12:54	WG1493045
4,4-DDE	0.0117	J	0.00429	0.0234	1	06/16/2020 12:54	WG1493045
4,4-DDT	U		0.00735	0.0234	1	06/16/2020 12:54	WG1493045
Dieldrin	U		0.00403	0.0234	1	06/16/2020 12:54	WG1493045
Endosulfan I	U		0.00426	0.0234	1	06/16/2020 12:54	WG1493045
Endosulfan II	U		0.00393	0.0234	1	06/16/2020 12:54	WG1493045
Endosulfan sulfate	U		0.00427	0.0234	1	06/16/2020 12:54	WG1493045
Endrin	U		0.00410	0.0234	1	06/16/2020 12:54	WG1493045
Endrin aldehyde	U		0.00397	0.0234	1	06/16/2020 12:54	WG1493045
Endrin ketone	U		0.00834	0.0234	1	06/16/2020 12:54	WG1493045
Heptachlor	U		0.00502	0.0234	1	06/16/2020 12:54	WG1493045
Heptachlor epoxide	U		0.00397	0.0234	1	06/16/2020 12:54	WG1493045
Hexachlorobenzene	U		0.00406	0.0234	1	06/16/2020 12:54	WG1493045
Methoxychlor	U		0.00567	0.0234	1	06/16/2020 12:54	WG1493045
Chlordane	U		0.121	0.352	1	06/16/2020 12:54	WG1493045
Toxaphene	U		0.145	0.469	1	06/16/2020 12:54	WG1493045
(S) Decachlorobiphenyl	*66.5*			*10.0-135*		*06/16/2020 12:54*	WG1493045
(S) Tetrachloro-m-xylene	*76.6*			*10.0-139*		*06/16/2020 12:54*	WG1493045

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.1		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Lead	21.6		0.301	0.601	1	06/12/2020 20:08	WG1490560

Polychlorinated Biphenyls (GC) by Method 8082

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
PCB 1016	U		0.0142	0.0409	1	06/13/2020 12:46	WG1491271
PCB 1221	U		0.0142	0.0409	1	06/13/2020 12:46	WG1491271
PCB 1232	U		0.0142	0.0409	1	06/13/2020 12:46	WG1491271
PCB 1242	U		0.0142	0.0409	1	06/13/2020 12:46	WG1491271
PCB 1248	U		0.00888	0.0204	1	06/13/2020 12:46	WG1491271
PCB 1254	U		0.00888	0.0204	1	06/13/2020 12:46	WG1491271
PCB 1260	U		0.00888	0.0204	1	06/13/2020 12:46	WG1491271
(S) Decachlorobiphenyl	*89.2*			*10.0-135*		*06/13/2020 12:46*	WG1491271
(S) Tetrachloro-m-xylene	*87.9*			*10.0-139*		*06/13/2020 12:46*	WG1491271

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.7		1	06/11/2020 22:02	WG1490978

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	U		1.27	2.54	1	06/12/2020 20:11	WG1490560
Lead	21.6		0.318	0.636	1	06/12/2020 20:11	WG1490560

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00478	0.0254	1	06/16/2020 13:06	WG1493045
Alpha BHC	U		0.00468	0.0254	1	06/16/2020 13:06	WG1493045
Beta BHC	U		0.00482	0.0254	1	06/16/2020 13:06	WG1493045
Delta BHC	U		0.00440	0.0254	1	06/16/2020 13:06	WG1493045
Gamma BHC	U		0.00437	0.0254	1	06/16/2020 13:06	WG1493045
4,4-DDD	U		0.00470	0.0254	1	06/16/2020 13:06	WG1493045
4,4-DDE	0.00882	J	0.00465	0.0254	1	06/16/2020 13:06	WG1493045
4,4-DDT	U		0.00797	0.0254	1	06/16/2020 13:06	WG1493045
Dieldrin	U		0.00437	0.0254	1	06/16/2020 13:06	WG1493045
Endosulfan I	U		0.00462	0.0254	1	06/16/2020 13:06	WG1493045
Endosulfan II	U		0.00426	0.0254	1	06/16/2020 13:06	WG1493045
Endosulfan sulfate	U		0.00463	0.0254	1	06/16/2020 13:06	WG1493045
Endrin	U		0.00445	0.0254	1	06/16/2020 13:06	WG1493045
Endrin aldehyde	U		0.00431	0.0254	1	06/16/2020 13:06	WG1493045
Endrin ketone	U		0.00904	0.0254	1	06/16/2020 13:06	WG1493045
Heptachlor	U		0.00544	0.0254	1	06/16/2020 13:06	WG1493045
Heptachlor epoxide	U		0.00431	0.0254	1	06/16/2020 13:06	WG1493045
Hexachlorobenzene	U		0.00440	0.0254	1	06/16/2020 13:06	WG1493045
Methoxychlor	U		0.00615	0.0254	1	06/16/2020 13:06	WG1493045
Chlordane	U		0.131	0.381	1	06/16/2020 13:06	WG1493045
Toxaphene	U		0.158	0.509	1	06/16/2020 13:06	WG1493045
(S) Decachlorobiphenyl	*61.9*			*10.0-135*		*06/16/2020 13:06*	WG1493045
(S) Tetrachloro-m-xylene	*72.0*			*10.0-139*		*06/16/2020 13:06*	WG1493045

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.2		1	06/11/2020 22:02	WG1490978

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	1.58	J	1.19	2.38	1	06/12/2020 20:14	WG1490560
Lead	26.4		0.297	0.594	1	06/12/2020 20:14	WG1490560

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00447	0.0238	1	06/16/2020 13:19	WG1493045
Alpha BHC	U		0.00437	0.0238	1	06/16/2020 13:19	WG1493045
Beta BHC	U		0.00450	0.0238	1	06/16/2020 13:19	WG1493045
Delta BHC	U		0.00411	0.0238	1	06/16/2020 13:19	WG1493045
Gamma BHC	U		0.00409	0.0238	1	06/16/2020 13:19	WG1493045
4,4-DDD	U		0.00440	0.0238	1	06/16/2020 13:19	WG1493045
4,4-DDE	0.00765	J	0.00435	0.0238	1	06/16/2020 13:19	WG1493045
4,4-DDT	U		0.00745	0.0238	1	06/16/2020 13:19	WG1493045
Dieldrin	U		0.00409	0.0238	1	06/16/2020 13:19	WG1493045
Endosulfan I	U		0.00431	0.0238	1	06/16/2020 13:19	WG1493045
Endosulfan II	U		0.00398	0.0238	1	06/16/2020 13:19	WG1493045
Endosulfan sulfate	U		0.00432	0.0238	1	06/16/2020 13:19	WG1493045
Endrin	U		0.00416	0.0238	1	06/16/2020 13:19	WG1493045
Endrin aldehyde	U		0.00403	0.0238	1	06/16/2020 13:19	WG1493045
Endrin ketone	U		0.00845	0.0238	1	06/16/2020 13:19	WG1493045
Heptachlor	U		0.00508	0.0238	1	06/16/2020 13:19	WG1493045
Heptachlor epoxide	U		0.00403	0.0238	1	06/16/2020 13:19	WG1493045
Hexachlorobenzene	U		0.00411	0.0238	1	06/16/2020 13:19	WG1493045
Methoxychlor	U		0.00575	0.0238	1	06/16/2020 13:19	WG1493045
Chlordane	U		0.122	0.356	1	06/16/2020 13:19	WG1493045
Toxaphene	U		0.147	0.475	1	06/16/2020 13:19	WG1493045
(S) Decachlorobiphenyl	*70.1*			*10.0-135*		*06/16/2020 13:19*	WG1493045
(S) Tetrachloro-m-xylene	*75.3*			*10.0-139*		*06/16/2020 13:19*	WG1493045

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.7		1	06/11/2020 22:02	WG1490978

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	U		2.54	11.0	5	06/13/2020 16:41	WG1490560
Lead	U		1.15	2.76	5	06/13/2020 16:41	WG1490560

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00414	0.0220	1	06/16/2020 13:31	WG1493045
Alpha BHC	U		0.00406	0.0220	1	06/16/2020 13:31	WG1493045
Beta BHC	U		0.00418	0.0220	1	06/16/2020 13:31	WG1493045
Delta BHC	U		0.00381	0.0220	1	06/16/2020 13:31	WG1493045
Gamma BHC	U		0.00379	0.0220	1	06/16/2020 13:31	WG1493045
4,4-DDD	U		0.00408	0.0220	1	06/16/2020 13:31	WG1493045
4,4-DDE	U		0.00403	0.0220	1	06/16/2020 13:31	WG1493045
4,4-DDT	U		0.00691	0.0220	1	06/16/2020 13:31	WG1493045
Dieldrin	U		0.00379	0.0220	1	06/16/2020 13:31	WG1493045
Endosulfan I	U		0.00400	0.0220	1	06/16/2020 13:31	WG1493045
Endosulfan II	U		0.00369	0.0220	1	06/16/2020 13:31	WG1493045
Endosulfan sulfate	U		0.00401	0.0220	1	06/16/2020 13:31	WG1493045
Endrin	U		0.00386	0.0220	1	06/16/2020 13:31	WG1493045
Endrin aldehyde	U		0.00374	0.0220	1	06/16/2020 13:31	WG1493045
Endrin ketone	U		0.00784	0.0220	1	06/16/2020 13:31	WG1493045
Heptachlor	U		0.00472	0.0220	1	06/16/2020 13:31	WG1493045
Heptachlor epoxide	U		0.00374	0.0220	1	06/16/2020 13:31	WG1493045
Hexachlorobenzene	U		0.00381	0.0220	1	06/16/2020 13:31	WG1493045
Methoxychlor	U		0.00534	0.0220	1	06/16/2020 13:31	WG1493045
Chlordane	U		0.114	0.331	1	06/16/2020 13:31	WG1493045
Toxaphene	U		0.137	0.441	1	06/16/2020 13:31	WG1493045
(S) Decachlorobiphenyl	*80.1*			*10.0-135*		*06/16/2020 13:31*	WG1493045
(S) Tetrachloro-m-xylene	*82.2*			*10.0-139*		*06/16/2020 13:31*	WG1493045

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.8		1	06/11/2020 22:02	WG1490978

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.36		1.09	2.18	1	06/12/2020 15:30	WG1490492
Lead	34.8		0.272	0.544	1	06/12/2020 15:30	WG1490492

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00409	0.0218	1	06/16/2020 13:43	WG1493045
Alpha BHC	U		0.00401	0.0218	1	06/16/2020 13:43	WG1493045
Beta BHC	U		0.00413	0.0218	1	06/16/2020 13:43	WG1493045
Delta BHC	U		0.00377	0.0218	1	06/16/2020 13:43	WG1493045
Gamma BHC	U		0.00375	0.0218	1	06/16/2020 13:43	WG1493045
4,4-DDD	U		0.00403	0.0218	1	06/16/2020 13:43	WG1493045
4,4-DDE	0.252		0.00399	0.0218	1	06/16/2020 13:43	WG1493045
4,4-DDT	0.0302		0.00683	0.0218	1	06/17/2020 02:15	WG1493045
Dieldrin	U		0.00375	0.0218	1	06/16/2020 13:43	WG1493045
Endosulfan I	U		0.00395	0.0218	1	06/16/2020 13:43	WG1493045
Endosulfan II	U		0.00365	0.0218	1	06/16/2020 13:43	WG1493045
Endosulfan sulfate	U		0.00396	0.0218	1	06/16/2020 13:43	WG1493045
Endrin	U		0.00381	0.0218	1	06/16/2020 13:43	WG1493045
Endrin aldehyde	U		0.00369	0.0218	1	06/16/2020 13:43	WG1493045
Endrin ketone	U		0.00774	0.0218	1	06/16/2020 13:43	WG1493045
Heptachlor	U		0.00466	0.0218	1	06/16/2020 13:43	WG1493045
Heptachlor epoxide	U		0.00369	0.0218	1	06/16/2020 13:43	WG1493045
Hexachlorobenzene	U		0.00377	0.0218	1	06/16/2020 13:43	WG1493045
Methoxychlor	U		0.00527	0.0218	1	06/16/2020 13:43	WG1493045
Chlordane	U		0.112	0.327	1	06/16/2020 13:43	WG1493045
Toxaphene	U		0.135	0.436	1	06/16/2020 13:43	WG1493045
(S) Decachlorobiphenyl	*74.5*			*10.0-135*		*06/16/2020 13:43*	WG1493045
(S) Decachlorobiphenyl	*73.2*			*10.0-135*		*06/17/2020 02:15*	WG1493045
(S) Tetrachloro-m-xylene	*78.2*			*10.0-139*		*06/16/2020 13:43*	WG1493045
(S) Tetrachloro-m-xylene	*70.6*			*10.0-139*		*06/17/2020 02:15*	WG1493045

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.2		1	06/11/2020 22:02	WG1490978

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.17	J	1.10	2.19	1	06/12/2020 15:38	WG1490492
Lead	16.2		0.274	0.548	1	06/12/2020 15:38	WG1490492

Pesticides (GC) by Method 8081

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Aldrin	U		0.00412	0.0219	1	06/16/2020 13:56	WG1493045
Alpha BHC	U		0.00403	0.0219	1	06/16/2020 13:56	WG1493045
Beta BHC	U		0.00415	0.0219	1	06/16/2020 13:56	WG1493045
Delta BHC	U		0.00379	0.0219	1	06/16/2020 13:56	WG1493045
Gamma BHC	U		0.00377	0.0219	1	06/16/2020 13:56	WG1493045
4,4-DDD	U		0.00406	0.0219	1	06/16/2020 13:56	WG1493045
4,4-DDE	0.0480		0.00401	0.0219	1	06/16/2020 13:56	WG1493045
4,4-DDT	U		0.00687	0.0219	1	06/16/2020 13:56	WG1493045
Dieldrin	U		0.00377	0.0219	1	06/16/2020 13:56	WG1493045
Endosulfan I	U		0.00398	0.0219	1	06/16/2020 13:56	WG1493045
Endosulfan II	U		0.00367	0.0219	1	06/16/2020 13:56	WG1493045
Endosulfan sulfate	U		0.00399	0.0219	1	06/16/2020 13:56	WG1493045
Endrin	U		0.00384	0.0219	1	06/16/2020 13:56	WG1493045
Endrin aldehyde	U		0.00372	0.0219	1	06/16/2020 13:56	WG1493045
Endrin ketone	U		0.00779	0.0219	1	06/16/2020 13:56	WG1493045
Heptachlor	U		0.00469	0.0219	1	06/16/2020 13:56	WG1493045
Heptachlor epoxide	U		0.00372	0.0219	1	06/16/2020 13:56	WG1493045
Hexachlorobenzene	U		0.00379	0.0219	1	06/16/2020 13:56	WG1493045
Methoxychlor	U		0.00530	0.0219	1	06/16/2020 13:56	WG1493045
Chlordane	U		0.113	0.329	1	06/16/2020 13:56	WG1493045
Toxaphene	U		0.136	0.438	1	06/16/2020 13:56	WG1493045
(S) Decachlorobiphenyl	*72.6*			*10.0-135*		*06/16/2020 13:56*	WG1493045
(S) Tetrachloro-m-xylene	*75.5*			*10.0-139*		*06/16/2020 13:56*	WG1493045

Method Blank (MB)

(MB) R3538100-1 06/11/20 22:31

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00200			

L1227092-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1227092-01 06/11/20 22:31 • (DUP) R3538100-3 06/11/20 22:31

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	91.3	91.1	1	0.249		10

Laboratory Control Sample (LCS)

(LCS) R3538100-2 06/11/20 22:31

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3538096-1 06/11/20 22:16

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1227097-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1227097-06 06/11/20 22:16 • (DUP) R3538096-3 06/11/20 22:16

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	89.2	90.9	1	1.88		10

Laboratory Control Sample (LCS)

(LCS) R3538096-2 06/11/20 22:16

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3538095-1 06/11/20 22:02

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1227125-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1227125-02 06/11/20 22:02 • (DUP) R3538095-3 06/11/20 22:02

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	85.0	86.0	1	1.16		10

Laboratory Control Sample (LCS)

(LCS) R3538095-2 06/11/20 22:02

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3538223-1 06/12/20 14:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		1.00	2.00
Lead	U		0.250	0.500

Laboratory Control Sample (LCS)

(LCS) R3538223-2 06/12/20 14:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	103	103	80.0-120	
Lead	100	106	106	80.0-120	

L1226975-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1226975-01 06/12/20 14:37 • (MS) R3538223-5 06/12/20 14:45 • (MSD) R3538223-6 06/12/20 14:47

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	103	5.21	102	104	93.8	96.1	1	75.0-125			2.35	20
Lead	103	4.56	107	108	99.7	100	1	75.0-125			0.491	20

Method Blank (MB)

(MB) R3538226-1 06/12/20 19:12

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.460	2.00
Lead	U		0.250	0.500

Laboratory Control Sample (LCS)

(LCS) R3538226-2 06/12/20 19:14

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	103	103	80.0-120	
Lead	100	106	106	80.0-120	

L1227097-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1227097-01 06/12/20 19:17 • (MS) R3538226-5 06/12/20 19:26 • (MSD) R3538226-6 06/12/20 19:29

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	112	6.45	118	113	98.8	95.0	1	75.0-125			3.70	20
Lead	112	38.7	188	161	133	109	1	75.0-125	J5		15.3	20

Method Blank (MB)

(MB) R3539234-1 06/16/20 11:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00376	0.0200
Alpha BHC	U		0.00368	0.0200
Beta BHC	U		0.00379	0.0200
Delta BHC	U		0.00346	0.0200
Gamma BHC	U		0.00344	0.0200
4,4-DDD	U		0.00370	0.0200
4,4-DDE	U		0.00366	0.0200
4,4-DDT	U		0.00627	0.0200
Dieldrin	U		0.00344	0.0200
Endosulfan I	U		0.00363	0.0200
Endosulfan II	U		0.00335	0.0200
Endosulfan sulfate	U		0.00364	0.0200
Endrin	U		0.00350	0.0200
Endrin aldehyde	U		0.00339	0.0200
Endrin ketone	U		0.00711	0.0200
Heptachlor	U		0.00428	0.0200
Heptachlor epoxide	U		0.00339	0.0200
Hexachlorobenzene	U		0.00346	0.0200
Methoxychlor	U		0.00484	0.0200
Chlordane	U		0.103	0.300
Toxaphene	U		0.124	0.400
(S) Decachlorobiphenyl	*71.8*			*10.0-135*
(S) Tetrachloro-m-xylene	*71.8*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R3539234-2 06/16/20 11:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	0.0666	0.0507	76.1	34.0-136	
Alpha BHC	0.0666	0.0509	76.4	34.0-139	
Beta BHC	0.0666	0.0497	74.6	34.0-133	
Delta BHC	0.0666	0.0527	79.1	34.0-135	
Gamma BHC	0.0666	0.0519	77.9	34.0-136	
4,4-DDD	0.0666	0.0480	72.1	33.0-141	
4,4-DDE	0.0666	0.0488	73.3	34.0-134	
4,4-DDT	0.0666	0.0493	74.0	30.0-143	
Dieldrin	0.0666	0.0497	74.6	35.0-137	
Endosulfan I	0.0666	0.0497	74.6	34.0-134	

Laboratory Control Sample (LCS)

(LCS) R3539234-2 06/16/20 11:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Endosulfan II	0.0666	0.0481	72.2	35.0-132	
Endosulfan sulfate	0.0666	0.0492	73.9	35.0-132	
Endrin	0.0666	0.0505	75.8	34.0-137	
Endrin aldehyde	0.0666	0.0466	70.0	23.0-121	
Endrin ketone	0.0666	0.0494	74.2	35.0-144	
Heptachlor	0.0666	0.0501	75.2	36.0-141	
Heptachlor epoxide	0.0666	0.0486	73.0	36.0-134	
Hexachlorobenzene	0.0666	0.0471	70.7	33.0-129	
Methoxychlor	0.0666	0.0460	69.1	28.0-150	
(S) Decachlorobiphenyl			*72.8*	*10.0-135*	
(S) Tetrachloro-m-xylene			*72.5*	*10.0-139*	

L1227686-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1227686-01 06/16/20 18:28 • (MS) R3539234-3 06/16/20 18:40 • (MSD) R3539234-4 06/16/20 18:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aldrin	0.0978	U	0.0785	0.0719	80.3	73.6	1	20.0-135			8.78	37
Alpha BHC	0.0978	U	0.0797	0.0729	81.5	74.6	1	27.0-140			8.85	35
Beta BHC	0.0978	U	0.0706	0.0624	72.2	63.8	1	23.0-141			12.4	37
Delta BHC	0.0978	U	0.0790	0.0678	80.8	69.4	1	21.0-138			15.2	35
Gamma BHC	0.0978	U	0.0791	0.0703	80.9	71.9	1	27.0-137			11.8	36
4,4-DDD	0.0978	U	0.0882	0.0763	90.2	78.1	1	15.0-152			14.5	39
4,4-DDE	0.0978	U	0.0766	0.0677	78.4	69.2	1	10.0-152			12.4	40
4,4-DDT	0.0978	U	0.0727	0.0584	74.3	59.8	1	10.0-151			21.7	40
Dieldrin	0.0978	U	0.0807	0.0709	82.6	72.5	1	17.0-145			13.0	37
Endosulfan I	0.0978	U	0.0772	0.0683	79.0	69.8	1	20.0-137			12.3	36
Endosulfan II	0.0978	U	0.0775	0.0656	79.3	67.1	1	15.0-141			16.6	37
Endosulfan sulfate	0.0978	U	0.0961	0.0649	98.3	66.4	1	15.0-143		J3	38.8	38
Endrin	0.0978	U	0.0816	0.0699	83.5	71.5	1	19.0-143			15.5	37
Endrin aldehyde	0.0978	U	0.0750	0.0594	76.7	60.8	1	10.0-139			23.1	40
Endrin ketone	0.0978	U	0.0644	0.0523	65.9	53.5	1	17.0-149			20.9	38
Heptachlor	0.0978	U	0.0841	0.0772	86.0	79.0	1	22.0-138			8.55	37
Heptachlor epoxide	0.0978	U	0.0760	0.0672	77.8	68.8	1	22.0-138			12.3	36
Hexachlorobenzene	0.0978	U	0.0815	0.0754	83.3	77.2	1	25.0-126			7.67	35
Methoxychlor	0.0978	U	0.0712	0.0545	72.8	55.7	1	10.0-159			26.6	40
(S) Decachlorobiphenyl					*79.7*	*78.2*		*10.0-135*				
(S) Tetrachloro-m-xylene					*64.4*	*69.4*		*10.0-139*				

Method Blank (MB)

(MB) R3539235-1 06/16/20 11:15

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Aldrin	U		0.00376	0.0200
Alpha BHC	U		0.00368	0.0200
Beta BHC	U		0.00379	0.0200
Delta BHC	U		0.00346	0.0200
Gamma BHC	U		0.00344	0.0200
4,4-DDD	U		0.00370	0.0200
4,4-DDE	U		0.00366	0.0200
4,4-DDT	U		0.00627	0.0200
Dieldrin	U		0.00344	0.0200
Endosulfan I	U		0.00363	0.0200
Endosulfan II	U		0.00335	0.0200
Endosulfan sulfate	U		0.00364	0.0200
Endrin	U		0.00350	0.0200
Endrin aldehyde	U		0.00339	0.0200
Endrin ketone	U		0.00711	0.0200
Heptachlor	U		0.00428	0.0200
Heptachlor epoxide	U		0.00339	0.0200
Hexachlorobenzene	U		0.00346	0.0200
Methoxychlor	U		0.00484	0.0200
Chlordane	U		0.103	0.300
Toxaphene	U		0.124	0.400
(S) Decachlorobiphenyl	*69.1*			*10.0-135*
(S) Tetrachloro-m-xylene	*69.4*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R3539235-2 06/16/20 11:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Aldrin	0.0666	0.0401	60.2	34.0-136	
Alpha BHC	0.0666	0.0403	60.5	34.0-139	
Beta BHC	0.0666	0.0397	59.6	34.0-133	
Delta BHC	0.0666	0.0418	62.8	34.0-135	
Gamma BHC	0.0666	0.0409	61.4	34.0-136	
4,4-DDD	0.0666	0.0380	57.1	33.0-141	
4,4-DDE	0.0666	0.0388	58.3	34.0-134	
4,4-DDT	0.0666	0.0388	58.3	30.0-143	
Dieldrin	0.0666	0.0396	59.5	35.0-137	
Endosulfan I	0.0666	0.0396	59.5	34.0-134	

Laboratory Control Sample (LCS)

(LCS) R3539235-2 06/16/20 11:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Endosulfan II	0.0666	0.0381	57.2	35.0-132	
Endosulfan sulfate	0.0666	0.0387	58.1	35.0-132	
Endrin	0.0666	0.0401	60.2	34.0-137	
Endrin aldehyde	0.0666	0.0342	51.4	23.0-121	
Endrin ketone	0.0666	0.0391	58.7	35.0-144	
Heptachlor	0.0666	0.0397	59.6	36.0-141	
Heptachlor epoxide	0.0666	0.0386	58.0	36.0-134	
Hexachlorobenzene	0.0666	0.0374	56.2	33.0-129	
Methoxychlor	0.0666	0.0360	54.1	28.0-150	
(S) Decachlorobiphenyl			*80.3*	*10.0-135*	
(S) Tetrachloro-m-xylene			*79.4*	*10.0-139*	

L1226434-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1226434-12 06/16/20 17:01 • (MS) R3539235-3 06/16/20 17:13 • (MSD) R3539235-4 06/16/20 17:26

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Aldrin	0.0636	U	0.0512	0.0511	80.5	76.7	1	20.0-135			0.195	37
Alpha BHC	0.0636	U	0.0519	0.0520	81.6	78.1	1	27.0-140			0.192	35
Beta BHC	0.0636	U	0.0462	0.0471	72.6	70.7	1	23.0-141			1.93	37
Delta BHC	0.0636	U	0.0522	0.0526	82.1	79.0	1	21.0-138			0.763	35
Gamma BHC	0.0636	U	0.0517	0.0519	81.3	77.9	1	27.0-137			0.386	36
4,4-DDD	0.0636	U	0.0584	0.0589	91.8	88.4	1	15.0-152			0.853	39
4,4-DDE	0.0636	0.00481	0.0586	0.0560	84.6	76.9	1	10.0-152			4.54	40
4,4-DDT	0.0636	U	0.0524	0.0504	82.4	75.7	1	10.0-151			3.89	40
Dieldrin	0.0636	U	0.0536	0.0538	84.3	80.8	1	17.0-145			0.372	37
Endosulfan I	0.0636	U	0.0514	0.0516	80.8	77.5	1	20.0-137			0.388	36
Endosulfan II	0.0636	U	0.0501	0.0508	78.8	76.3	1	15.0-141			1.39	37
Endosulfan sulfate	0.0636	U	0.0493	0.0507	77.5	76.1	1	15.0-143			2.80	38
Endrin	0.0636	U	0.0542	0.0538	85.2	80.8	1	19.0-143			0.741	37
Endrin aldehyde	0.0636	U	0.0445	0.0465	70.0	69.8	1	10.0-139			4.40	40
Endrin ketone	0.0636	U	0.0411	0.0424	64.6	63.7	1	17.0-149			3.11	38
Heptachlor	0.0636	U	0.0561	0.0560	88.2	84.1	1	22.0-138			0.178	37
Heptachlor epoxide	0.0636	U	0.0502	0.0501	78.9	75.2	1	22.0-138			0.199	36
Hexachlorobenzene	0.0636	U	0.0559	0.0553	87.9	83.0	1	25.0-126			1.08	35
Methoxychlor	0.0636	U	0.0462	0.0469	72.6	70.4	1	10.0-159			1.50	40
(S) Decachlorobiphenyl					*81.8*	*76.6*		*10.0-135*				
(S) Tetrachloro-m-xylene					*65.6*	*61.7*		*10.0-139*				

Method Blank (MB)

(MB) R3538467-1 06/13/20 11:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.0118	0.0340
PCB 1221	U		0.0118	0.0340
PCB 1232	U		0.0118	0.0340
PCB 1242	U		0.0118	0.0340
PCB 1248	U		0.00738	0.0170
PCB 1254	U		0.00738	0.0170
PCB 1260	U		0.00738	0.0170
(S) Decachlorobiphenyl	*68.5*			*10.0-135*
(S) Tetrachloro-m-xylene	*67.1*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R3538467-2 06/13/20 11:24

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
PCB 1260	0.167	0.144	86.2	37.0-145	
PCB 1016	0.167	0.124	74.3	36.0-141	
(S) Decachlorobiphenyl			*71.2*	*10.0-135*	
(S) Tetrachloro-m-xylene			*68.9*	*10.0-139*	

1 Cp
2 Tc
3 Ss
4 Cn
5 Ds
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Method Blank (MB)

(MB) R3539115-1 06/16/20 09:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.0118	0.0340
PCB 1221	U		0.0118	0.0340
PCB 1232	U		0.0118	0.0340
PCB 1242	U		0.0118	0.0340
PCB 1248	U		0.00738	0.0170
PCB 1254	U		0.00738	0.0170
PCB 1260	U		0.00738	0.0170
(S) Decachlorobiphenyl	*70.7*			*10.0-135*
(S) Tetrachloro-m-xylene	*68.0*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R3539115-2 06/16/20 10:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
PCB 1260	0.167	0.158	94.6	37.0-145	
PCB 1016	0.167	0.132	79.0	36.0-141	
(S) Decachlorobiphenyl			*79.1*	*10.0-135*	
(S) Tetrachloro-m-xylene			*76.0*	*10.0-139*	

L1227686-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1227686-01 06/16/20 18:45 • (MS) R3539115-3 06/16/20 18:59 • (MSD) R3539115-4 06/16/20 19:12

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
PCB 1260	0.245	U	0.178	0.198	72.5	80.8	1	10.0-160			10.9	38
PCB 1016	0.245	U	0.189	0.203	77.2	82.6	1	10.0-160			6.74	37
(S) Decachlorobiphenyl					*71.0*	*76.7*		*10.0-135*				
(S) Tetrachloro-m-xylene					*79.0*	*79.7*		*10.0-139*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

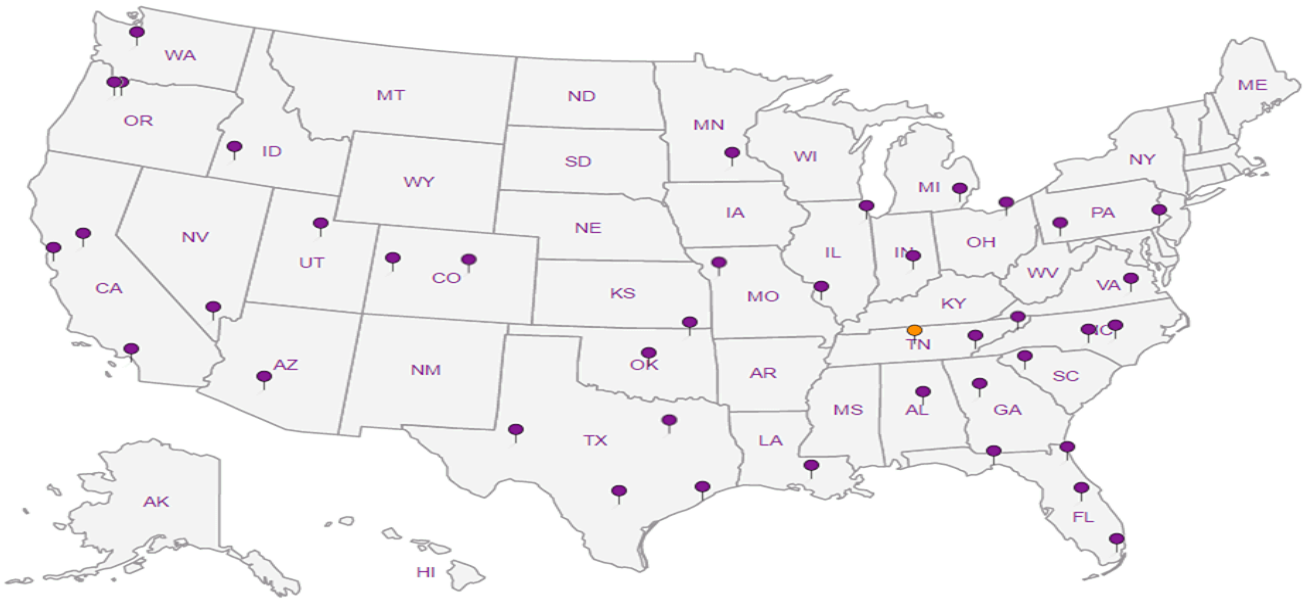
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



McCloskey Consulting - Danville, CA 420 Sycamore Valley Rd West Danville, CA 94526	Billing Information: Tom McCloskey 420 Sycamore Valley Rd W. Danville, CA 94526	Pres Chk
Report to: Tom McCloskey/Chris Vertin	Email To: tom@mccloskeyconsultants.com;cmvertin@gm...	
Project Description: Los Altos High School PEA Sampling	City/State Collected: Los Altos, CA	Please Circle: (PT) MT CT ET
Phone: 925-786-2667	Client Project #	Lab Project # MCCCONDCA-LAHS
Collected by (print): Chris Vertin	Site/Facility ID #	P.O. #
Collected by (signature): [signature] Immediately Packed on Ice N___ Y X	*Rush?* (Lab MUST Be Notified) ___ Same Day X Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day	Quote # Date Results Needed

Chain of Custody Page 1 of 2

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1227097
F176

Acctnum: MCCCONDCA
Template: T168835
Prelogin: P778535
PM: 110 - Brian Ford
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	As 6010 4ozClr-NoPres	OCPs 8081CA 4ozClr-NoPres	PCBs 8082 4ozClr-NoPres	Pb 6010 4ozClr-NoPres							Remarks	Sample # (lab only)
BP-1A	Grab	SS	0-½'	6.5.20	9:15	1				X								-01
BP-1B		SS			9:18					X								-02
BP-2		SS			9:10					X								-03
BP-3		SS			9:50		X	X	X	X								-04
BP-4		SS			9:45		X	X	X	X								-05
BP-5		SS			9:34		X	X	X	X								-06
BP-6		SS			12:57 ~~10:32~~ CMV				X	X								-07
BP-7		SS	0.75-1'		11:47			X		X								-08
BP-7		SS	1.5-2'		12:48			~~X~~		~~X~~ CMV							Hold	
		SS																

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ______

Remarks: Hold BP-7-1.5-2' -

pH ______ Temp ______
Flow ______ Other ______

Sample Receipt Checklist
COC Seal Present/Intact: __NP _Y _N
COC Signed/Accurate: _Y _N
Bottles arrive intact: _Y _N
Correct bottles used: _Y _N
Sufficient volume sent: _Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: _Y _N
RAD Screen <0.5 mR/hr: _Y _N

Samples returned via: __ UPS X FedEx __ Courier ______

Tracking # 4794 8842 4182

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeOH TBR
[signature]	6.8.20	12:02		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.1+0=4.1 °C Bottles Received: 19
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 6-9-20 Time: 0845

If preservation required by Login: Date/Time

06-067

Condition: NCF (OK)

McCloskey Consulting - Danville, CA

420 Sycamore Valley Rd West
Danville, CA 94526

Billing Information:
Tom McCloskey
420 Sycamore Valley Rd W.
Danville, CA 94526

Pres Chk

Report to: Tom McCloskey/Chris Vertin

Email To: tom@mccloskeyconsultants.com;cmvertin@gm

Project Description: Los Altos High School PEA Sampling

City/State Collected: Los Altos, CA

Please Circle: (PT) MT CT ET

Phone: 925-786-2667

Client Project #

Lab Project # MCCCONDCA-LAHS

Collected by (print): Chris Vertin

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

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National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1277097

Table #

Acctnum: MCCCONDCA

Template: T168835

Prelogin: P778535

PM: 110 - Brian Ford

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	As 6010 4ozClr-NoPres	OCPs 8081CA 4ozClr-NoPres	PCBs 8082 4ozClr-NoPres	Pb 6010 4ozClr-NoPres	Remarks	Sample # (lab only)
BP-8	Grab	SS	½-1'	6-5-20	11:38	1		X		X		-04
BP-8		SS	1.5-2'		12:53			~~X~~		~~X~~ CMV	Hold	
BP-9		SS	½-1'		11:30			X		X		-10
BP-9		SS	1.5-2'		11:36			~~X~~		~~X~~ CMV	Hold	
BP-10		SS	0-½'		12:50				X	X		-11
AG-1A		SS	0-½'		10:56		X	X		X		-12
AG-1B		SS	0-½'		10:58		X	X		X		-13
AG-2		SS	~½-1		19:07		X	X		X		-14
AG-3		SS	~½-1		14:06		X	X		X		-15
AG-4		SS	~½-1		14:30		X	X		X		-16

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other _____

Remarks: Hold BP-8 @ 1.5-2'
BP-9 @ 1.5-2'

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP Y N
COC Signed/Accurate:	Y N
Bottles arrive intact:	Y N
Correct bottles used:	Y N
Sufficient volume sent:	Y N
If Applicable	
VOA Zero Headspace:	Y N
Preservation Correct/Checked:	Y N
RAD Screen <0.5 mR/hr:	Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	6-8-20	12:02	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes (No) HCL / MeoH TBR

Temp 4.1 / 4.1 °C Bottles Received: 19

Date: 6-9-20 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF (OK)

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

June 23, 2020

McCloskey Consulting - Danville, CA

Sample Delivery Group:	L1230611
Samples Received:	06/09/2020
Project Number:	
Description:	Los Altos High School PEA Sampling

Report To: Tom McCloskey/Chris Vertin
420 Sycamore Valley Rd West
Danville, CA 94526

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

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BP-7 (0.75-1) L1230611-01 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 11:47 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1496416	1	06/21/20 06:43	06/21/20 23:44	EL	Mt. Juliet, TN

BP-8 (0.5-1) L1230611-02 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 11:38 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1496416	1	06/21/20 06:43	06/22/20 00:12	EL	Mt. Juliet, TN

BP-9 (0.5-1) L1230611-03 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 11:30 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1490977	1	06/11/20 22:05	06/11/20 22:16	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1496416	1	06/21/20 06:43	06/22/20 00:15	EL	Mt. Juliet, TN

BP-7 (1.5-2) L1230611-04 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 12:48 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1496762	1	06/22/20 14:26	06/22/20 14:34	KBC	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1496416	1	06/21/20 06:43	06/22/20 00:18	EL	Mt. Juliet, TN

BP-8 (1.5-2) L1230611-05 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 12:53 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1496762	1	06/22/20 14:26	06/22/20 14:34	KBC	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1496416	1	06/21/20 06:43	06/22/20 00:21	EL	Mt. Juliet, TN

BP-9 (1.5-2) L1230611-06 Solid

Collected by: Chris Vertin | Collected date/time: 06/05/20 11:36 | Received date/time: 06/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1496762	1	06/22/20 14:26	06/22/20 14:34	KBC	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1496416	1	06/21/20 06:43	06/22/20 00:24	EL	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Metals (ICP) by Method 6010B

Client ID	Lab Sample ID	Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
			mg/kg		mg/kg	mg/kg		date / time	
BP-7 (0.75-1)	L1230611-01	Arsenic	3.93		0.527	2.29	1	06/21/2020 23:44	WG1496416
BP-8 (0.5-1)	L1230611-02	Arsenic	5.37		0.539	2.34	1	06/22/2020 00:12	WG1496416
BP-9 (0.5-1)	L1230611-03	Arsenic	4.28		0.539	2.34	1	06/22/2020 00:15	WG1496416
BP-7 (1.5-2)	L1230611-04	Arsenic	11.5		0.527	2.29	1	06/22/2020 00:18	WG1496416
BP-8 (1.5-2)	L1230611-05	Arsenic	8.07		0.536	2.33	1	06/22/2020 00:21	WG1496416
BP-9 (1.5-2)	L1230611-06	Arsenic	4.00		0.516	2.24	1	06/22/2020 00:24	WG1496416

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.2		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.93		0.527	2.29	1	06/21/2020 23:44	WG1496416

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.4		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	5.37		0.539	2.34	1	06/22/2020 00:12	WG1496416

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.3		1	06/11/2020 22:16	WG1490977

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.28		0.539	2.34	1	06/22/2020 00:15	WG1496416

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.2		1	06/22/2020 14:34	WG1496762

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	11.5		0.527	2.29	1	06/22/2020 00:18	WG1496416

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.8		1	06/22/2020 14:34	WG1496762

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	8.07		0.536	2.33	1	06/22/2020 00:21	WG1496416

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.2		1	06/22/2020 14:34	WG1496762

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.00		0.516	2.24	1	06/22/2020 00:24	WG1496416

Method Blank (MB)

(MB) R3538096-1 06/11/20 22:16

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1227097-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1227097-06 06/11/20 22:16 • (DUP) R3538096-3 06/11/20 22:16

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	89.2	90.9	1	1.88		10

Laboratory Control Sample (LCS)

(LCS) R3538096-2 06/11/20 22:16

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3541757-1 06/22/20 14:34

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1230317-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1230317-02 06/22/20 14:34 • (DUP) R3541757-3 06/22/20 14:34

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	8.47	8.30	1	2.05		10

Laboratory Control Sample (LCS)

(LCS) R3541757-2 06/22/20 14:34

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3541166-1 06/21/20 23:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.460	2.00

Laboratory Control Sample (LCS)

(LCS) R3541166-2 06/21/20 23:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	98.4	98.4	80.0-120	

L1230611-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230611-01 06/21/20 23:44 • (MS) R3541166-5 06/21/20 23:52 • (MSD) R3541166-6 06/21/20 23:55

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	115	3.93	109	104	91.8	87.0	1	75.0-125			5.17	20

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

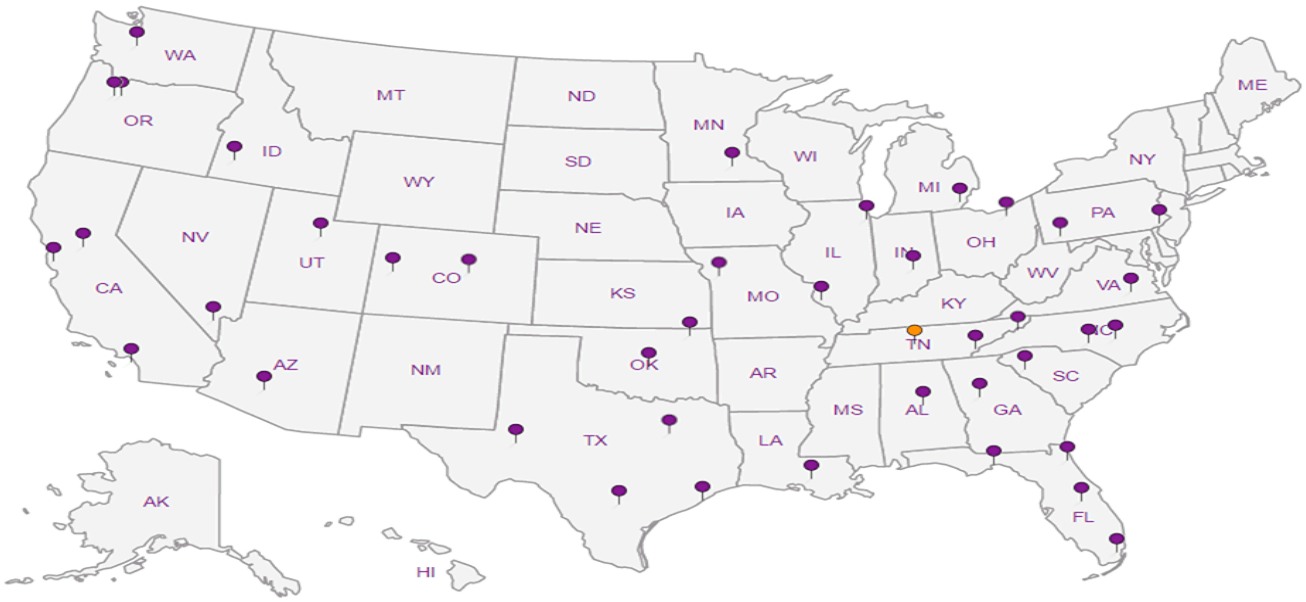
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



McCloskey Consulting - Danville, CA

420 Sycamore Valley Rd West
Danville, CA 94526

Billing Information:
Tom McCloskey
420 Sycamore Valley Rd W.
Danville, CA 94526

Pres Chk

Report to: Tom McCloskey/Chris Vertin

Email To: tom@mccloskeyconsultants.com;cmvertin@gm

Project Description: Los Altos High School PEA Sampling

City/State Collected: Los Altos, CA

Please Circle: (PT) MT CT ET

Phone: 925-786-2667

Client Project #

Lab Project # MCCCONDCA-LAHS

Collected by (print): Chris Vertin

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	As 6010 4ozClr-NoPres	OCPs 8081CA 4ozClr-NoPres	PCBs 8082 4ozClr-NoPres	Pb 6010 4ozClr-NoPres							Remarks	Sample # (lab only)
BP-1A	Grab	SS	0-½'	6-5-20	9:15	1				X								-01
BP-1B		SS			9:18					X								-02
BP-2		SS			9:10					X								-03
BP-3		SS			9:50		X	X	X	X								-04
BP-4		SS			9:45		X	X	X	X								-05
BP-5		SS			9:34		X	X	X	X								-06
BP-6		SS			~~12:57~~ 10:32 CMV				X	X								-07
BP-7		SS	0.75-1'		11:47			X		X								-08 -01
BP-7		SS	1.5-2'		12:48			~~X~~		~~X~~	CMV						Hold	-04
		SS																

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: Hold BP-7-1.5-2' -

pH ___ Temp ___

Flow ___ Other ___

Samples returned via: __ UPS X FedEx __ Courier

Tracking # 4794 5842 4182

Relinquished by: (Signature) — Date: 6-8-20 — Time: 12:02 — Received by: (Signature)

Relinquished by: (Signature) — Date: — Time: — Received by: (Signature)

Relinquished by: (Signature) — Date: — Time: — Received for lab by: (Signature)

Trip Blank Received: Yes / (No) HCl / MeoH TBR

Temp: NA °C Bottles Received: 19

Date: 6-9-20 Time: 0845

If preservation required by Login: Date/Time

06-067

Condition: NCF (OK)

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1227047

E048

L1230611

Acctnum: MCCCONDCA

Template: T168835

Prelogin: P778535

PM: 110 - Brian Ford

PB:

Shipped Via:

AV 6/10/20

McCloskey Consulting - Danville, CA

420 Sycamore Valley Rd West
Danville, CA 94526

Billing Information:
Tom McCloskey
420 Sycamore Valley Rd W.
Danville, CA 94526

Pres Chk

Report to: Tom McCloskey/Chris Vertin

Email To: tom@mccloskeyconsultants.com;cmvertin@gm

Project Description: Los Altos High School PEA Sampling

City/State Collected: Los Altos, CA

Please Circle: (PT) MT CT ET

Phone: 925-786-2667

Client Project #

Lab Project # MCCCONDCA-LAHS

Collected by (print): Chris Vertin

Collected by (signature):

Site/Facility ID #

P.O. #

Quote #

Immediately Packed on ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	As 6010 4ozClr-NoPres	OCPs 8081CA 4ozClr-NoPres	PCBs 8082 4ozClr-NoPres	Pb 6010 4ozClr-NoPres							Remarks	Sample # (lab only)
BP-8	Grab	SS	½-1'	6-5-20	11:38	1		X		X								-04
BP-8		SS	1.5-2'		12:53			~~X~~		~~X~~	CMV						Hold	-05
BP-9		SS	½-1'		11:30			X		X								-10 -03
BP-9		SS	1.5-2'		11:36			~~X~~		~~X~~	CMV						Hold	-06
BP-10		SS	0-½'		12:50				X	X								-09
AG-1A		SS	0-½'		10:56		X	X		X								-12
AG-1B		SS	0-½'		10:58		X	X		X								-13
AG-2		SS	~½-1		19:07		X	X		X								-14
AG-3		SS	~½-1		14:06		X	X		X								-15
AG-4		SS	~½-1		14:30		X	X		X								-16

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other _____

Remarks: Hold BP-8 @ 1.5-2'
BP-9 @ 1.5-2'

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS X FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

	Date:	Time:		
Relinquished by: (Signature)	6-8-20	12:02	Received by: (Signature)	Trip Blank Received: Yes (No) HCL / MeoH TBR
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp 4.1 +0.2 °C Bottles Received 19
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6-9-20 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF (OK)

Chain of Custody Page 2 of 2

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1277047

Table # L1230611

Acctnum: MCCCONDCA

Template: T168835

Prelogin: P778535

PM: 110 - Brian Ford

PB:

Shipped Via:

Andy Vann

From: Brian Ford
Sent: Wednesday, June 17, 2020 11:04 PM
To: Project Service; Sample Storage; Brian Ford
Subject: L1227097 *MCCCONDCA* re-log and log off hold

Please log the following samples for ASICP and TS. Transfer TS for re-logs. R5 due 06/24.

L1227097-08 (BP-7 (0.75-1))
L1227097-09 (BP-8 (0.5-1))
L1227097-10 (BP-9 (0.5-1))
(BP-7 (1.5-2))
(BP-8 (1.5-2))
(BP-9 (1.5-2))

Thanks,

Brian Ford
Project Manager
Pace Analytical National Center for Testing & Innovation
12065 Lebanon Road | Mt. Juliet, TN 37122
direct 615.773.9772 | cell 615.881.4570
bford@pacenational.com | pacenational.com

Appendix E

Arsenic Statistical Analyses

Background Statistics for Uncensored Full Data Sets

User Selected Options

Date/Time of Computation	ProUCL 5.16/24/2020 2:30:42 PM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Coverage	95%
New or Future K Observations	1
Number of Bootstrap Operations	2000

Arsenic

General Statistics

Total Number of Observations	20	Number of Distinct Observations	20
Minimum	0.971	First Quartile	2.473
Second Largest	9.7	Median	4.14
Maximum	11.5	Third Quartile	6.698
Mean	4.877	SD	2.959
Coefficient of Variation	0.607	Skewness	0.77
Mean of logged Data	1.394	SD of logged Data	0.662

Critical Values for Background Threshold Values (BTVs)

Tolerance Factor K (For UTL)	2.396	d2max (for USL)	2.557

Normal GOF Test

Shapiro Wilk Test Statistic	0.93	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.905	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.169	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.192	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Background Statistics Assuming Normal Distribution

95% UTL with	95% Coverage	11.97	90% Percentile (z)	8.668
	95% UPL (t)	10.12	95% Percentile (z)	9.743
	95% USL	12.44	99% Percentile (z)	11.76

Gamma GOF Test

A-D Test Statistic	0.208	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.749	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.128	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.195	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.775	k star (bias corrected MLE)	2.392
Theta hat (MLE)	1.757	Theta star (bias corrected MLE)	2.038
nu hat (MLE)	111	nu star (bias corrected)	95.69
MLE Mean (bias corrected)	4.877	MLE Sd (bias corrected)	3.153

Background Statistics Assuming Gamma Distribution

95% Wilson Hilferty (WH) Approx. Gamma UPL	11.3	90% Percentile	9.099
95% Hawkins Wixley (HW) Approx. Gamma UPL	11.61	95% Percentile	10.94

53			95% WH Approx. Gamma UTL with		95% Coverage	14.92				99% Percentile		14.99
54			95% HW Approx. Gamma UTL with		95% Coverage	15.7						
55					95% WH USL	15.96				95% HW USL		16.91
56												
57						**Lognormal GOF Test**						
58					Shapiro Wilk Test Statistic	0.974		**Shapiro Wilk Lognormal GOF Test**				
59					5% Shapiro Wilk Critical Value	0.905		Data appear Lognormal at 5% Significance Level				
60					Lilliefors Test Statistic	0.119		**Lilliefors Lognormal GOF Test**				
61					5% Lilliefors Critical Value	0.192		Data appear Lognormal at 5% Significance Level				
62					Data appear Lognormal at 5% Significance Level							
63												
64						**Background Statistics assuming Lognormal Distribution**						
65					95% UTL with	95% Coverage	19.68			90% Percentile (z)		9.411
66						95% UPL (t)	13.02			95% Percentile (z)		11.97
67						95% USL	21.88			99% Percentile (z)		18.79
68												
69						**Nonparametric Distribution Free Background Statistics**						
70						Data appear Normal at 5% Significance Level						
71												
72						**Nonparametric Upper Limits for Background Threshold Values**						
73					Order of Statistic, r	20			95% UTL with	95% Coverage		11.5
74					Approx, f used to compute achieved CC	1.053		pproximate Actual Confidence Coefficient achieved by UTL				0.642
75								Approximate Sample Size needed to achieve specified CC				59
76			95% Percentile Bootstrap UTL with		95% Coverage	11.5		95% BCA Bootstrap UTL with		95% Coverage		11.5
77					95% UPL	11.41				90% Percentile		9.178
78					90% Chebyshev UPL	13.97				95% Percentile		9.79
79					95% Chebyshev UPL	18.09				99% Percentile		11.16
80					95% USL	11.5						
81												
82					Note: The use of USL tends to yield a conservative estimate of BTV, especially when the sample size starts exceeding 20.							
83					Therefore, one may use USL to estimate a BTV only when the data set represents a background data set free of outliers							
84					and consists of observations collected from clean unimpacted locations.							
85					The use of USL tends to provide a balance between false positives and false negatives provided the data							
86					represents a background data set and when many onsite observations need to be compared with the BTV.							
87												

Goodness-of-Fit Test Statistics for Uncensored Full Data Sets without Non-Detects

User Selected Options

Date/Time of Computation	ProUCL 5.16/24/2020 2:49:07 PM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	0.95

Arsenic

Raw Statistics

Number of Valid Observations	20
Number of Distinct Observations	20
Minimum	0.971
Maximum	11.5
Mean of Raw Data	4.877
Standard Deviation of Raw Data	2.959
Khat	2.775
Theta hat	1.757
Kstar	2.392
Theta star	2.038
Mean of Log Transformed Data	1.394
Standard Deviation of Log Transformed Data	0.662

Normal GOF Test Results

Correlation Coefficient R	0.968
Shapiro Wilk Test Statistic	0.93
Shapiro Wilk Critical (0.05) Value	0.905
Approximate Shapiro Wilk P Value	0.172
Lilliefors Test Statistic	0.169
Lilliefors Critical (0.05) Value	0.192

Data appear Normal at (0.05) Significance Level

Gamma GOF Test Results

Correlation Coefficient R	0.991
A-D Test Statistic	0.208
A-D Critical (0.05) Value	0.749
K-S Test Statistic	0.128
K-S Critical(0.05) Value	0.195

Data appear Gamma Distributed at (0.05) Significance Level

Lognormal GOF Test Results

Correlation Coefficient R	0.989
Shapiro Wilk Test Statistic	0.974
Shapiro Wilk Critical (0.05) Value	0.905
Approximate Shapiro Wilk P Value	0.838
Lilliefors Test Statistic	0.119
Lilliefors Critical (0.05) Value	0.192

Data appear Lognormal at (0.05) Significance Level

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	ProUCL 5.16/24/2020 2:31:44 PM
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Arsenic

General Statistics

Total Number of Observations	20	Number of Distinct Observations	20
		Number of Missing Observations	0
Minimum	0.971	Mean	4.877
Maximum	11.5	Median	4.14
SD	2.959	Std. Error of Mean	0.662
Coefficient of Variation	0.607	Skewness	0.77

Normal GOF Test

Shapiro Wilk Test Statistic	0.93	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.905	Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.169	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.192	Data appear Normal at 5% Significance Level

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	6.021	95% Adjusted-CLT UCL (Chen-1995)	6.087
		95% Modified-t UCL (Johnson-1978)	6.04

Gamma GOF Test

A-D Test Statistic	0.208	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.749	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.128	**Kolmogorov-Smirnov Gamma GOF Test**
5% K-S Critical Value	0.195	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	2.775	k star (bias corrected MLE)	2.392
Theta hat (MLE)	1.757	Theta star (bias corrected MLE)	2.038
nu hat (MLE)	111	nu star (bias corrected)	95.69
MLE Mean (bias corrected)	4.877	MLE Sd (bias corrected)	3.153
		Approximate Chi Square Value (0.05)	74.13
Adjusted Level of Significance	0.038	Adjusted Chi Square Value	72.63

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	6.295	95% Adjusted Gamma UCL (use when n<50)	6.425

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.974	**Shapiro Wilk Lognormal GOF Test**

53			5% Shapiro Wilk Critical Value		0.905		Data appear Lognormal at 5% Significance Level					
54			Lilliefors Test Statistic		0.119		**Lilliefors Lognormal GOF Test**					
55			5% Lilliefors Critical Value		0.192		Data appear Lognormal at 5% Significance Level					
56			Data appear Lognormal at 5% Significance Level									
57												
58			**Lognormal Statistics**									
59			Minimum of Logged Data		-0.0294				Mean of logged Data		1.394	
60			Maximum of Logged Data		2.442				SD of logged Data		0.662	
61												
62			**Assuming Lognormal Distribution**									
63			95% H-UCL		6.997				90% Chebyshev (MVUE) UCL		7.284	
64			95% Chebyshev (MVUE) UCL		8.34				97.5% Chebyshev (MVUE) UCL		9.807	
65			99% Chebyshev (MVUE) UCL		12.69							
66												
67			**Nonparametric Distribution Free UCL Statistics**									
68			Data appear to follow a Discernible Distribution at 5% Significance Level									
69												
70			**Nonparametric Distribution Free UCLs**									
71			95% CLT UCL		5.965				95% Jackknife UCL		6.021	
72			95% Standard Bootstrap UCL		5.954				95% Bootstrap-t UCL		6.173	
73			95% Hall's Bootstrap UCL		6.138				95% Percentile Bootstrap UCL		5.985	
74			95% BCA Bootstrap UCL		6.071							
75			90% Chebyshev(Mean, Sd) UCL		6.861				95% Chebyshev(Mean, Sd) UCL		7.76	
76			97.5% Chebyshev(Mean, Sd) UCL		9.008				99% Chebyshev(Mean, Sd) UCL		11.46	
77												
78			**Suggested UCL to Use**									
79			95% Student's-t UCL		6.021							
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	Recommendations are based upon data size, data distribution, and skewness.											
83	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
84	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
85												

General Statistics on Uncensored Log-Transformed Data

Date/Time of Computation: ProUCL 5.16/24/2020 2:37:11 PM

User Selected Options

From File: WorkSheet.xls

Full Precision: OFF

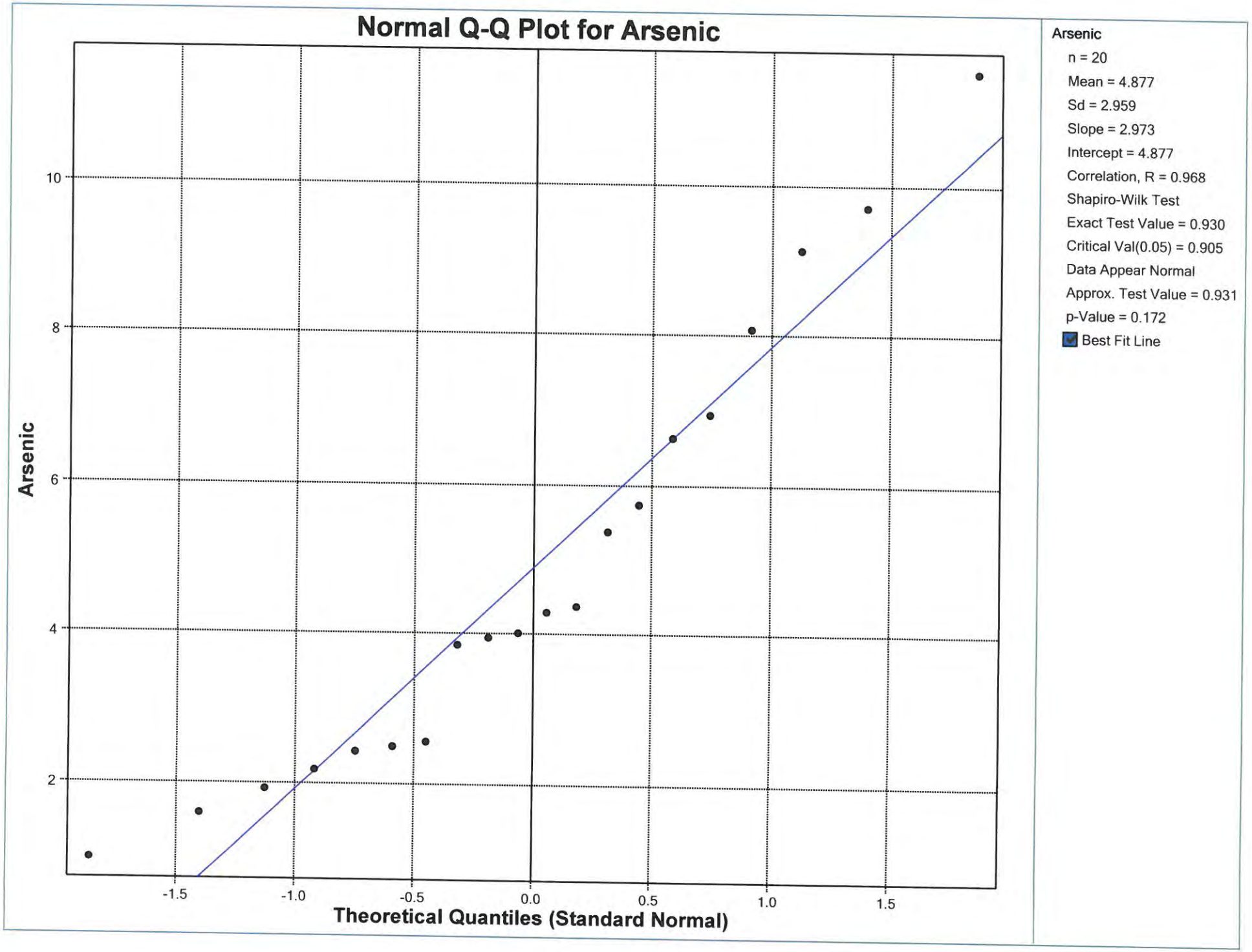
From File: WorkSheet.xls

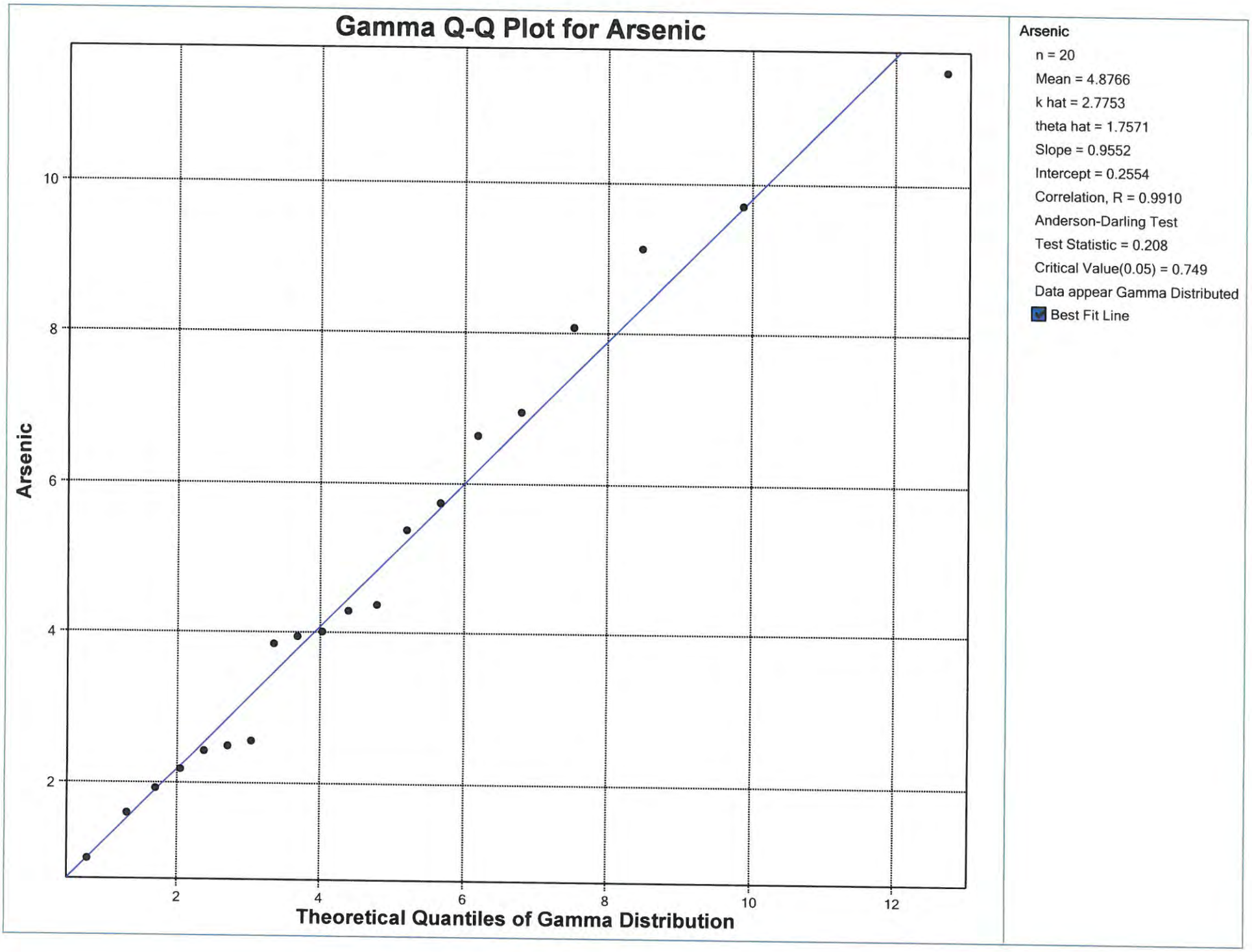
General Statistics for Uncensored Log-Transformed Dataset

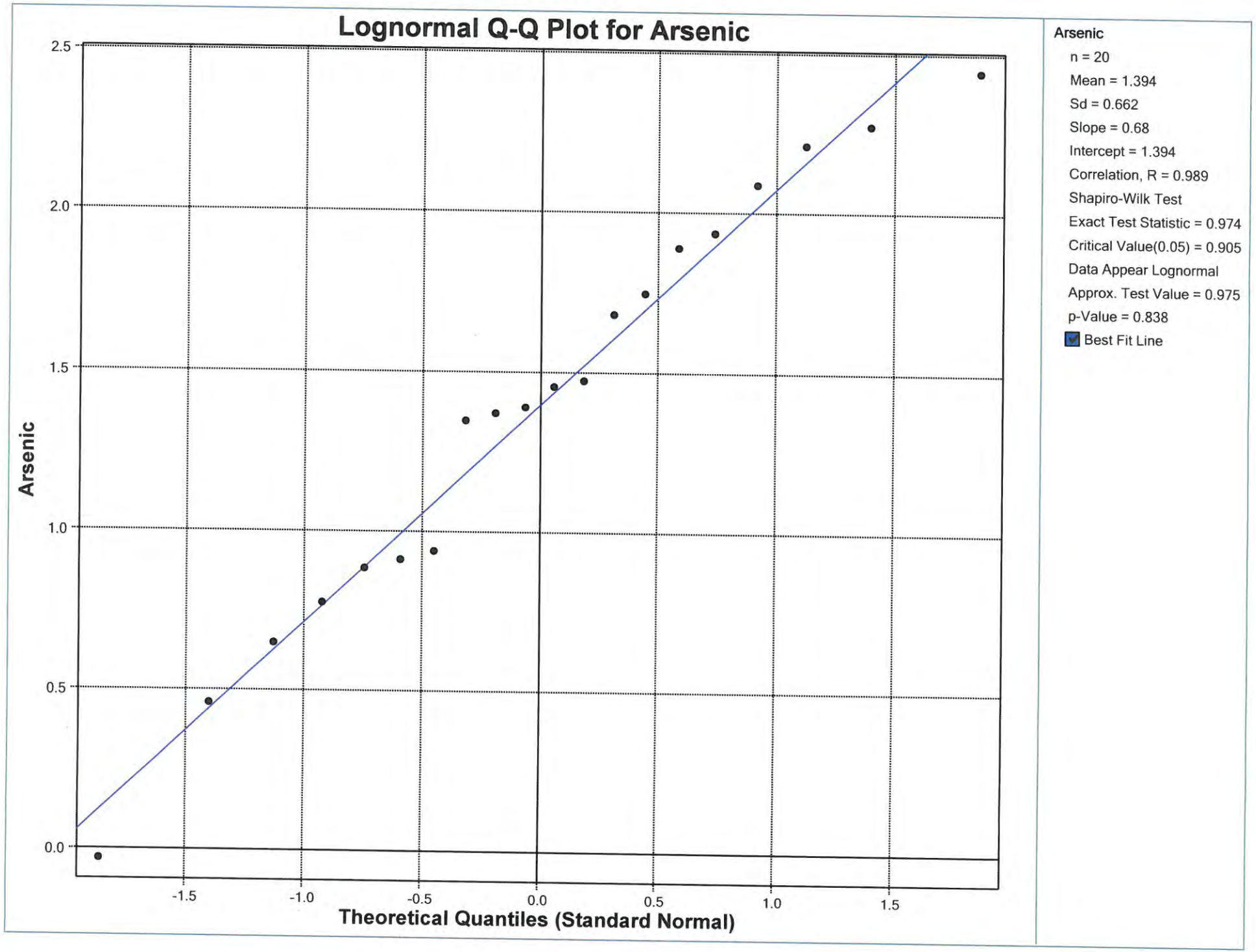
Variable	NumObs	# Missing	Minimum	Maximum	Mean	Variance	SD	MAD/0.675	Skewness	Kurtosis	CV
Arsenic	20	0	-0.0294	2.442	1.394	0.438	0.662	0.759	-0.329	-0.474	0.475

Percentiles for Uncensored Log-Transformed Dataset

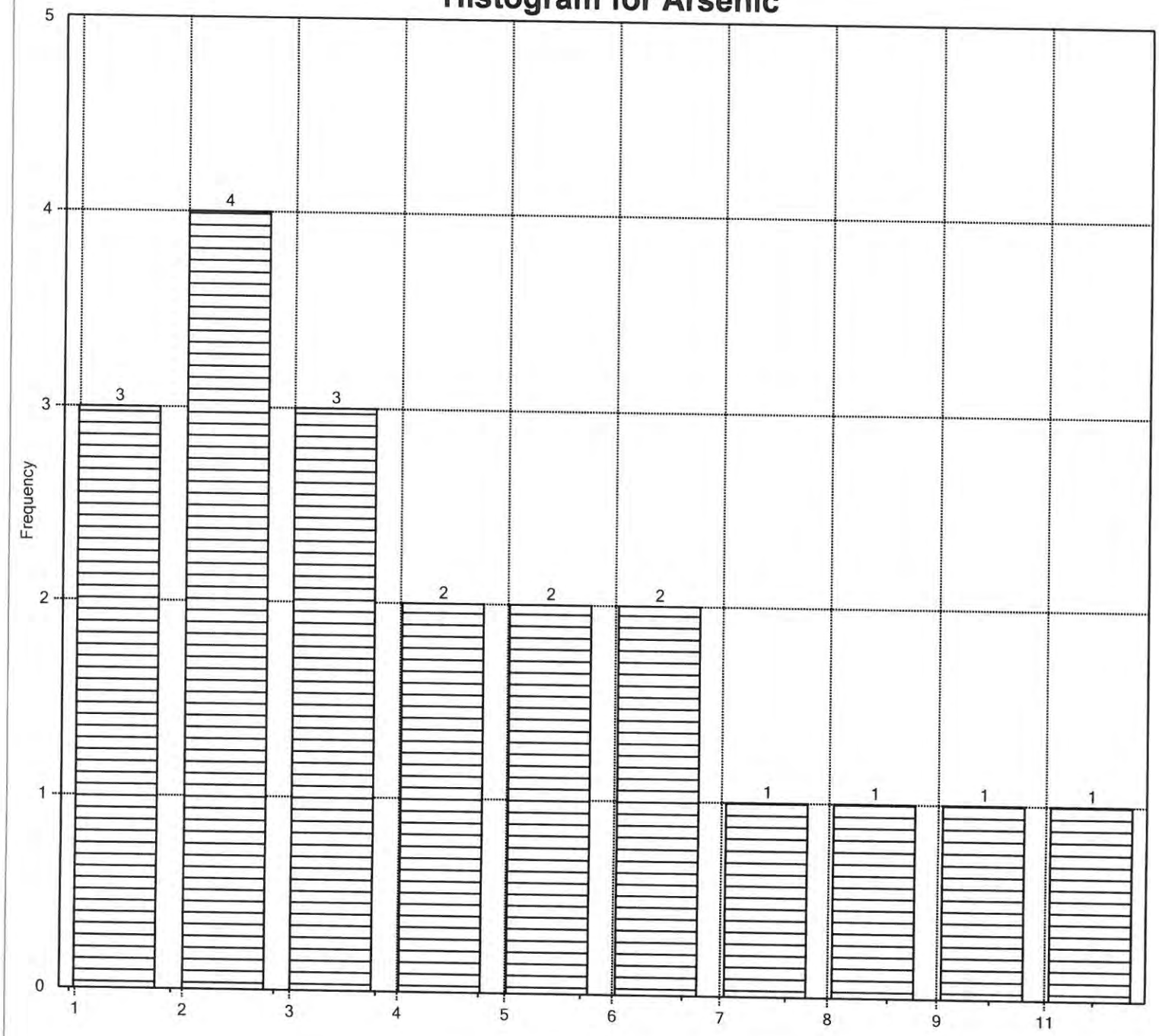
Variable	NumObs	# Missing	10%ile	20%ile	25%ile(Q1)	50%ile(Q2)	75%ile(Q3)	80%ile	90%ile	95%ile	99%ile
Arsenic	20	0	0.628	0.862	0.905	1.42	1.902	1.966	2.217	2.281	2.41


Normal Q-Q Plot for Arsenic
Arsenic
10
8
6
4
2
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
Theoretical Quantiles (Standard Normal)
Arsenic
n = 20
Mean = 4.877
Sd = 2.959
Slope = 2.973
Intercept = 4.877
Correlation, R = 0.968
Shapiro-Wilk Test
Exact Test Value = 0.930
Critical Val(0.05) = 0.905
Data Appear Normal
Approx. Test Value = 0.931
p-Value = 0.172
Best Fit Line


Gamma Q-Q Plot for Arsenic
Arsenic
Theoretical Quantiles of Gamma Distribution
2
4
6
8
10
12
Arsenic
n = 20
Mean = 4.8766
k hat = 2.7753
theta hat = 1.7571
Slope = 0.9552
Intercept = 0.2554
Correlation, R = 0.9910
Anderson-Darling Test
Test Statistic = 0.208
Critical Value(0.05) = 0.749
Data appear Gamma Distributed
Best Fit Line


Lognormal Q-Q Plot for Arsenic
Arsenic
Theoretical Quantiles (Standard Normal)
2.5
2.0
1.5
1.0
0.5
0.0
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
Arsenic
n = 20
Mean = 1.394
Sd = 0.662
Slope = 0.68
Intercept = 1.394
Correlation, R = 0.989
Shapiro-Wilk Test
Exact Test Statistic = 0.974
Critical Value(0.05) = 0.905
Data Appear Lognormal
Approx. Test Value = 0.975
p-Value = 0.838
Best Fit Line

Histogram for Arsenic

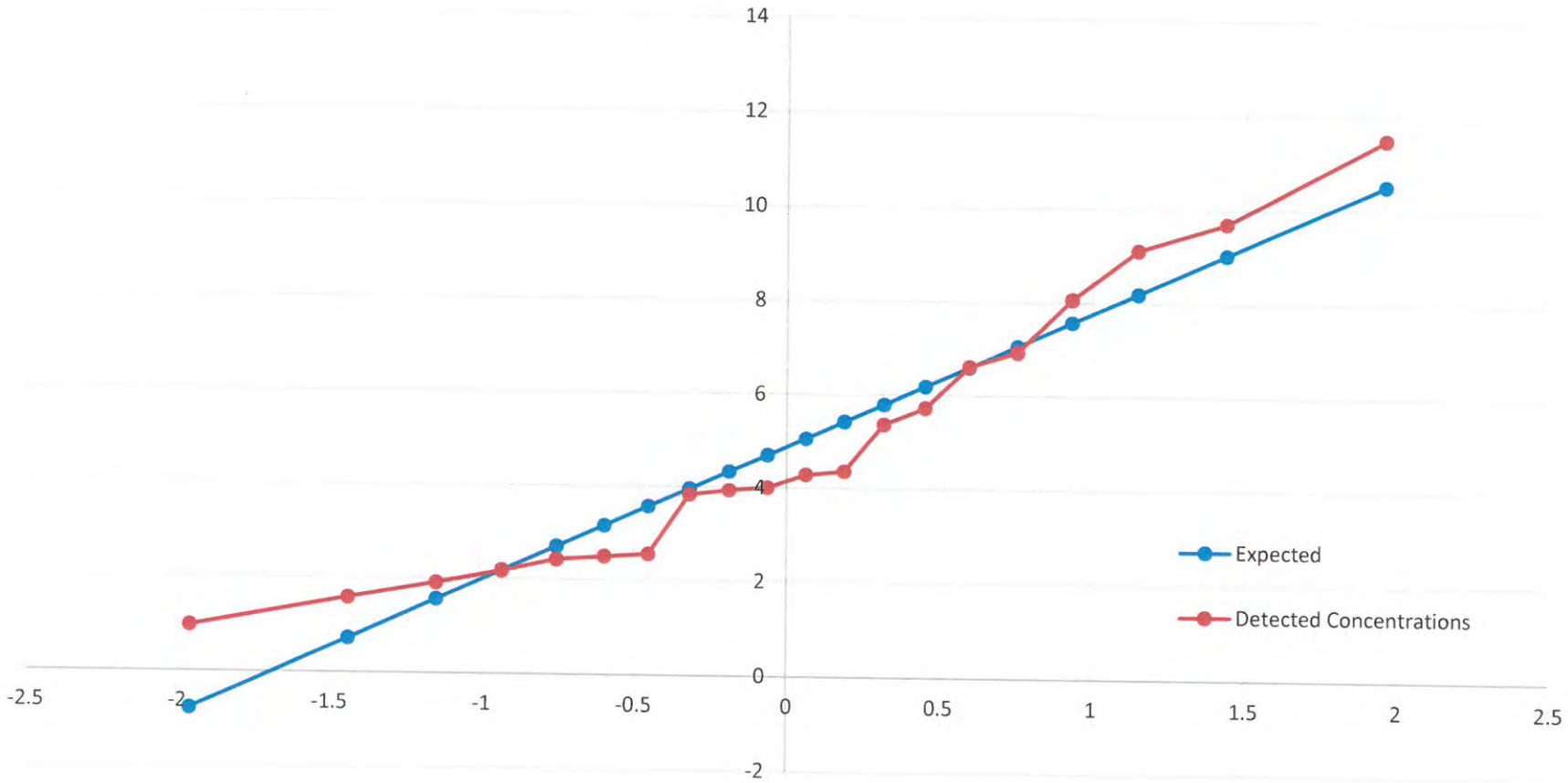


Arsenic

Number of Values	20
Minimum	0.97
Maximum	11.50
SD	2.96
Skewness	0.77
Kurtosis	-0.24
☐ Mean	4.88
☐ Median	4.14
☐ Normal Distribution	

☐ Less Bins
☐ More Bins

Q-Q Plot - Arsenic Data in Soils Los Altos High School PEA Sampling



Appendix F

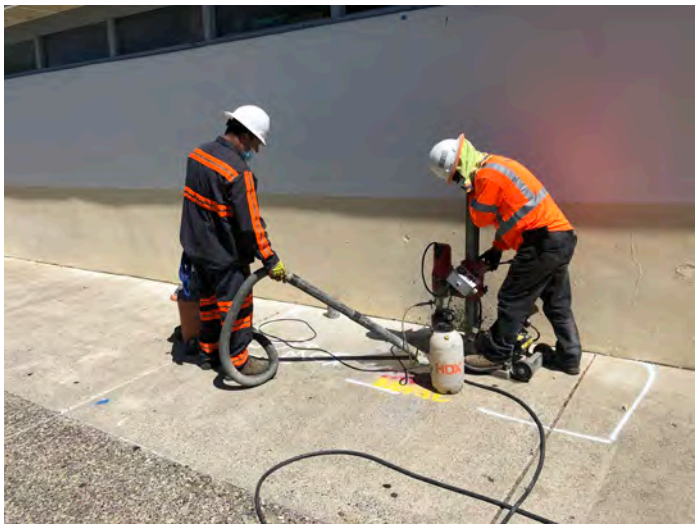
Site Photos

Appendix F
PEA Photographic Log – Los Altos High School Expansion

Grading North of the 500 Building

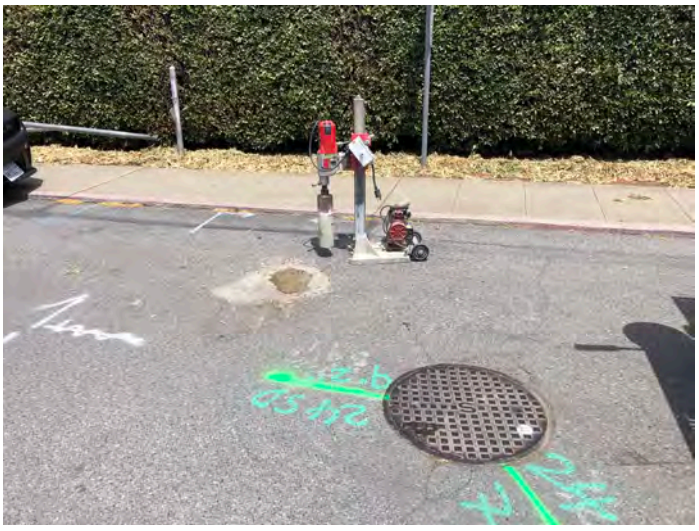
New Foundation in the area of former 600 Building

Southern Side of Custodial Building



Concrete Coring of Sampling Location BP-7

BP-2 Sampling Location



Coring Location for AG-4 Sampling